

An Indiana Traffic Safety Facts publication

# INDIANA CRASH FACTS 2021

BICYCLISTS



INDIANA UNIVERSITY

**PUBLIC POLICY INSTITUTE** 



**SEAT BELT USE** 

CHILD PASSENGER SAFETY

ALCOHOL-IMPAIRED

**SPEEDING** 

# INDIANA CRASH FACTS 2021

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# INTRODUCTION AND ACKNOWLEDGEMENTS

Designing and implementing effective traffic safety policies requires data-driven analysis of traffic collisions. To help in the policy-making process, the Indiana University Public Policy Institute (PPI) collaborates with the Indiana Criminal Justice Institute (ICJI) to analyze crash data from the Automated Reporting Information Exchange System (ARIES) database maintained by the Indiana State Police. Research findings are summarized in a series of annual publications on various aspects of traffic collisions, including alcohol-impaired crashes, children, motorcycles, dangerous driving, occupant protection, non-motorists, commercial vehicles, and work zones. Portions of the content of those reports and in this 2021 Indiana Crash Fact Book are based on guidelines provided by the U.S. National Highway Traffic Safety Administration (NHTSA).

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

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

#### NOTE:

Data discrepancies may exist between the 2021 Indiana traffic safety reports and previous traffic safety publications due to updates to the Indiana State Police ARIES data that have occurred since the original publication dates.

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# PROBLEM IDENTIFICATION

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# **PROBLEM IDENTIFICATION, 2021**

Each year, the Traffic Safety Division of the Indiana Criminal Justice Institute (ICJI) develops a set of benchmarks to assess the state of traffic safety in Indiana as part of its Highway Safety Plan (HSP). These benchmarks correspond to priority program areas established by the National Highway Traffic Safety Administration (NHTSA) and target fatal and injury collisions as they relate to overall injuries, impaired driving, seat belt use, young drivers, motorcycle safety, dangerous driving, child passenger safety, and non-motorist injuries in collisions. Within each area, ICJI establishes specific annual goals and performance measures that relate to collisions and their impact on Indiana. ICJI also works closely with the Indiana Department of Transportation (INDOT) to ensure there is consistency in goal setting between the HSP—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.

# **Goal setting by the Indiana Criminal Justice Institute**

ICJI develops a set of specific short- and long-term goals every year to be included in the HSP that are consistent with NHTSA's priority program areas and that address each of Indiana's traffic safety problem areas. This section presents a set of baseline measures utilizing the most recent Indiana crash data—as well as historical data—maintained by the Indiana State Police in the Automated Reporting and Information Exchange System (ARIES).

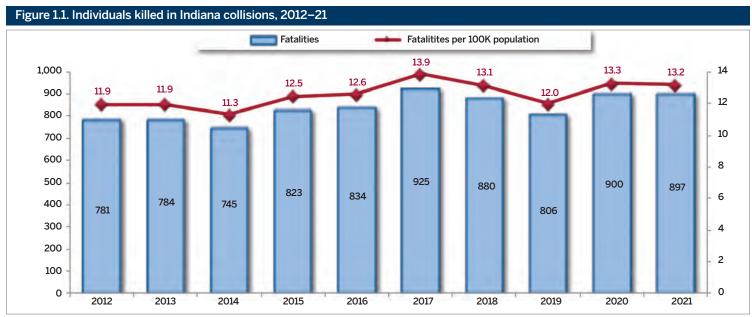
Note: Subsequent sections include a general discussion of goals identified in the Indiana Highway Safety Plan. The Indiana University Public Policy Institute has used ARIES crash data to produce a series of eight traffic safety fact sheets in previous years. This Crash Fact Book and the 2021 Indiana County Profile Book, were produced using the collision database current as of April 8, 2022. Discrepancies between figures presented in previous-year publications are due to updates to the ARIES collision database since the original publication date. For more details on specific goals, please refer to the ICJI FY 2023 Indiana Highway Safety Plan.

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

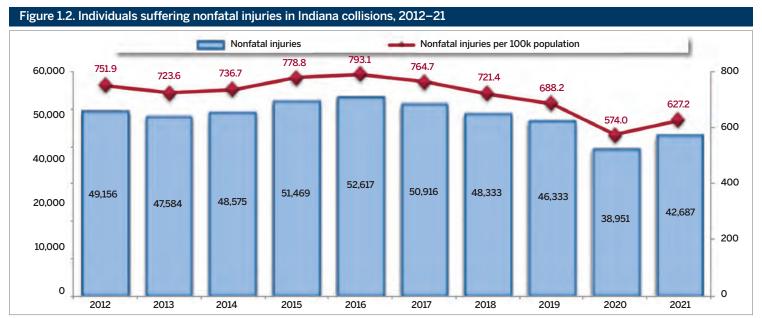
The severity of a traffic collision is influenced by many factors, including seat belt use, the speed at which vehicles travel, objects with which the vehicles collide, driver impairment and other dangerous driving behaviors, and emergency response times. Crashes in rural areas are more likely to result in fatalities largely due to these circumstances. For example, rural collisions are more likely to occur at higher speeds, with fixed objects that increase the force of impact, and involve greater distance and longer travel times for emergency responders.

In Indiana, traffic fatality rates have risen in recent years, after reaching a low of 11 per 100,000 of the state's population in 2014 (Figure 1.1). The 2021 Indiana fatality rate per 100,000 was 13, after reaching a 10-year high of nearly 14 per 100,000 in 2017. There were 897 traffic deaths in 2021, down slightly from 900 the previous year.

The number of nonfatal injuries in collisions rose from 38,951 in 2020—a 10-year low—to 42,687 in 2021 (Figure 1.2). The rate of nonfatal traffic injuries per 100,000 population also decreased to a ten-year low of 574 per 100,000 in 2020 and rose to 627 per 100,000 in 2021.



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 April 8, 2022; U.S. Census Bureau, extracted from STATS Indiana, Indiana Business Research Center, May 19, 2022.



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 April 8, 2022; U.S. Census Bureau, extracted from STATS Indiana, Indiana Business Research Center, May 19, 2022.

Note: Nonfatal injuries include those reported as incapacitating, non-incapacitating, possible, not reported, and unknown.

Fatalities are more likely than less severe traffic injuries to happen in nonurban areas. In 2021, about 30% of all traffic fatalities occurred in exurban and rural areas, compared to 14% of nonfatal injuries

(Figure 1.3). The rural and exurban rates of fatalities per 1,000 people involved in collisions were 6 and 9 per 1,000, respectively, compared to 2 per 1,000 in urban areas.

Figure 1.3. Fatality rates and geographic distribution of fatalities and nonfatal injuries in Indiana collisions, by Census locale, 2021 Fatalities per 1,000 involved in collisions, by locale 10 8 6 Rural 8.7 4 Exurban 6.0 Suburban 2 Urban 1.8 0 Percentage of total fatalities Percentage of nonfatal injuries Rural Exurban Rural Suburban Exurban 15% 13% Urban 49% Urban 71% Suburban 21%

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

#### Notes:

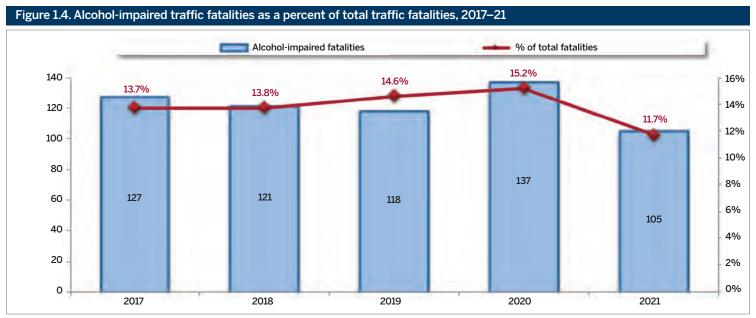
(ARIES), as of April 8, 2022.

- 1) Nonfatal injuries include those reported as incapacitating, non-incapacitating, possible, not reported, and unknown.
- 2) Excludes fatalities and injuries where locale could not be determined.

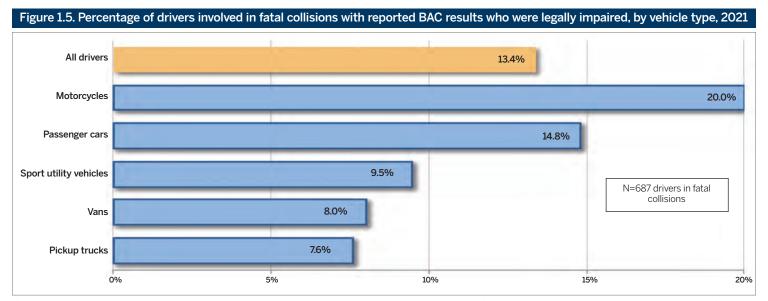
# **GOAL: Reducing impaired driving**

According to available blood alcohol content (BAC) test results reported in ARIES, 105 people died in alcohol-impaired driving crashes in 2021. The percentage of Indiana traffic fatalities that involved an impaired driver (12%) dropped from 15% in 2020 (Figure 1.4). According to the most recent data available from the NHTSA's Fatality Analysis Reporting System, 28% of all 2020 Indiana traffic fatalities involved an alcohol-impaired driver (NHTSA, 2021; DOT HS 813 120).

Rates of driver alcohol impairment vary by vehicle type. Among drivers in 2021 fatal crashes who had BAC test results reported in ARIES, motorcycle operators (20%) and passenger car drivers (15%) had the highest percentages of impaired driving across all vehicle types (Figure 1.5). Thirteen percent of all drivers in fatal collisions in Indiana were legally impaired.



Source: 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 April 8, 2022.



Source: 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 April 8, 2022.

# Notes:

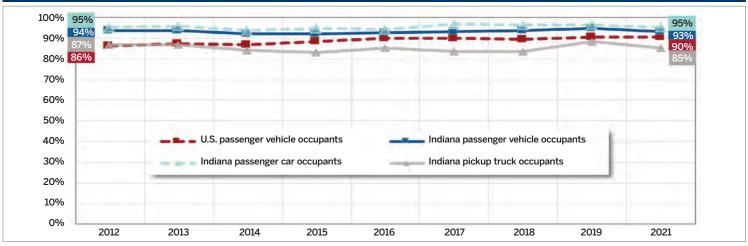
- 1) Includes only passenger vehicles (passenger cars, pickup trucks, sport utility vehicles, and vans) and motorcycles. Non-motorists and other vehicle types are excluded.
- 2) Motorcycles include motorcycles, Class A and Class B motor driven cycles, mopeds, and motorized bicycles.
- 3) Excludes drivers in fatal collisions who were not tested or for whom no reported BAC results appeared in ARIES.

# GOAL: Increasing seat belt use

Indiana observational studies of seat belt use, conducted annually by the Indiana Criminal Justice Institute (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. An Indiana observational seat belt use survey was not conducted in 2020. Between 2011 and 2021, Indiana's observational rate of seat belt use among passenger vehicle occupants remained consistent at 93% on average, a rate that was 3 percentage points higher than the most recently reported national rate (Figure 1.6). According to observational surveys in Indiana, seat belt use rates in pickup trucks continually lag behind rates for passenger cars.

Seat belt use among people involved in collisions varies by injury severity and census locale. Overall, occupants involved in collisions in 2021 in suburban (87%), exurban (86%), and urban areas (83%) were more likely to be buckled up compared to people in rural areas (80%) (Figure 1.7). Restraint use also is consistently much lower among those killed in collisions across all locales. Among passenger vehicle occupants, 48% of people killed in rural areas were wearing seat belts compared to 45% in exurban areas, 42% in suburban locales, and 30% in urban areas.

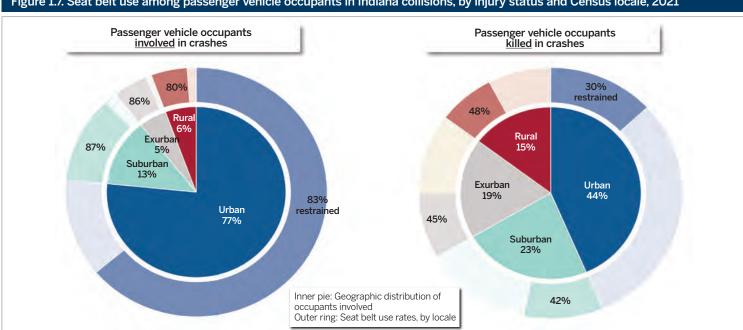
Figure 1.6. Comparison of observed safety equipment usage rates in Indiana by vehicle type, 2012-21



Sources: Analysis provided by the Indiana University Public Policy Institute using data downloaded from Indiana—Center for Road Safety, 2021, Indiana roadside observational survey of safety belt and motorcycle helmet use, Purdue University; U.S.—NHTSA, 2021, Seat belt use in 2021—Overall results (DOT HS 813 241), U.S. Department of Transportation.

Car and pickup truck restraint usage rates are specific to Indiana only. The annual observational seat belt survey was not conducted for Indiana in 2020.

Figure 1.7. Seat belt use among passenger vehicle occupants in Indiana collisions, by injury status and Census locale, 2021



Source: 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 April 8, 2022.

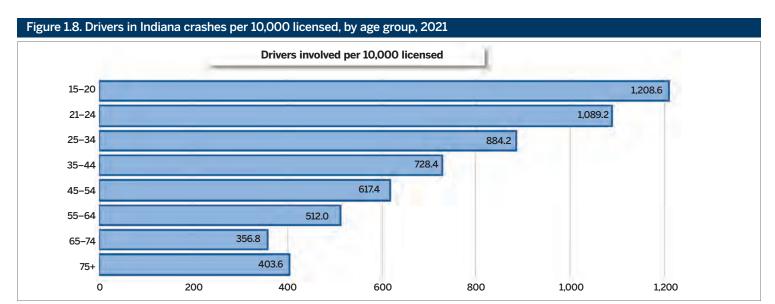
- Passenger vehicles include vehicles reported as a passenger car, pickup truck, van, or sport utility vehicle.
   Excludes cases where locale could not be determined.

# GOAL: Reducing young driver involvement in fatal crashes

In 2021 and consistent with previous years, collision involvement rates were higher among young drivers ages 15 to 20 than any other age group (Figure 1.8). Crash rates are lowest among drivers ages 65 to 74 (357 per 10,000 licensed drivers) but are three times higher for young drivers (1,209 per 10,000 licensed). Research shows part of this

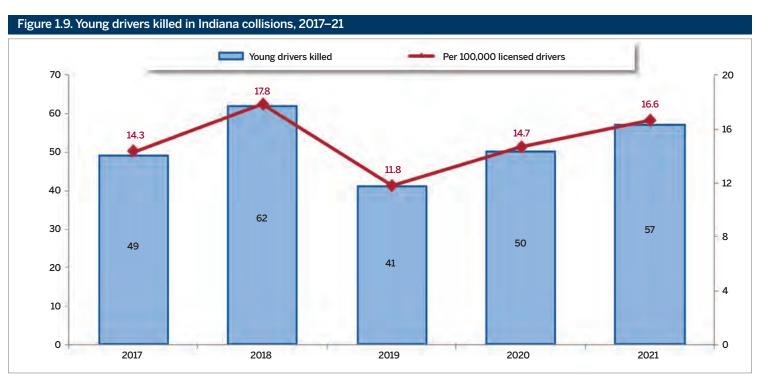
dramatic difference is due to aggressive driving and a lack of experience among young drivers.

The overall number of young drivers involved in collisions increased, from 33,600 (a five-year low) in 2020 to 41,378 in 2021, respectively. During this same time, the number of young drivers killed in collisions increased from 41 in 2019 to 50 in 2020 and 57 in 2021 (Figure 1.9).



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 April 8, 2022; Indiana Bureau of Motor Vehicles, downloaded May 25, 2022.

Note: Drivers with unknown or invalid age are excluded.



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 April 8, 2022; Indiana Bureau of Motor Vehicles, downloaded May 25, 2022.

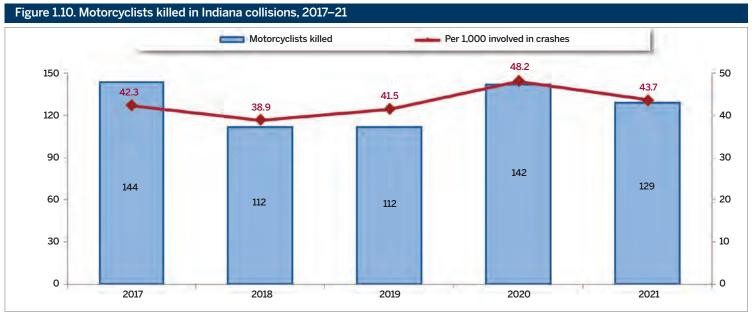
#### Notes

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

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

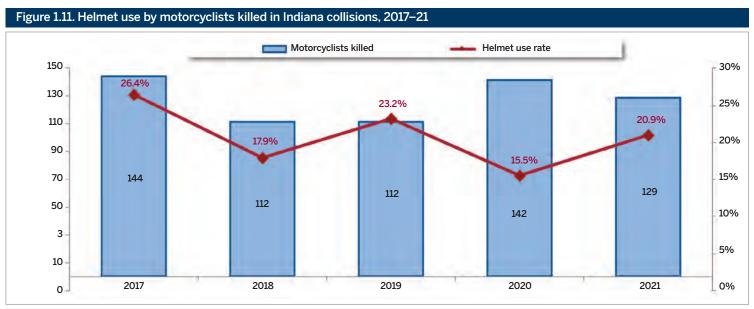
The number of motorcyclist fatalities in Indiana rose from 112 in 2019 to 142 in 2020 and declined to 129 in 2021 (Figure 1.10). The rate of motorcyclists involved in crashes also increased to 48 per 1,000 in 2020 after falling to 39 per 1,000 in 2018. In 2021, the rate of motorcyclists involved in collisions was 44 per 1,000.

In Indiana, only operators and passengers younger than 18 and operators with a motorcycle learner's permit are required to wear a helmet. In 2021, 25% of motorcyclists involved in collisions were wearing helmets (not shown). Among motorcyclists killed in crashes in 2021, 21% were helmeted (Figure 1.11).



Source: 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 April 8, 2022

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



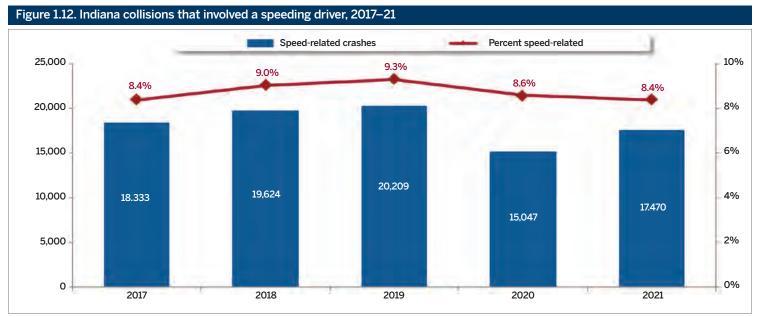
Source: Analysis provided by the Indiana University Public Policy Institute using data downloaded from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 8, 2022.

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

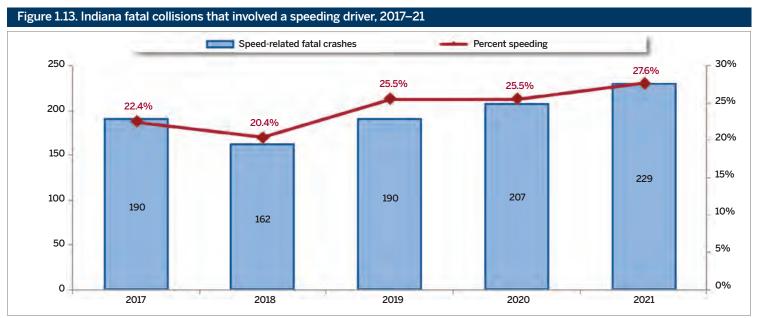
# **GOAL: Reducing drivers speeding in crashes**

In 2021, the number of Indiana collisions that involved a speeding driver increased to 17,470 from 15,047 in 2020 (Figure 1.12). Among fatal collisions, the number that involved a speeding driver increased from

207 in 2020 to 229 in 2021—marking a five-year high. Meanwhile, 8% of the state's collisions in 2021 involved a speeding driver compared to 28% of the state's fatal collisions (Figures 1.12 and 1.13).



Source: 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 April 8, 2022.



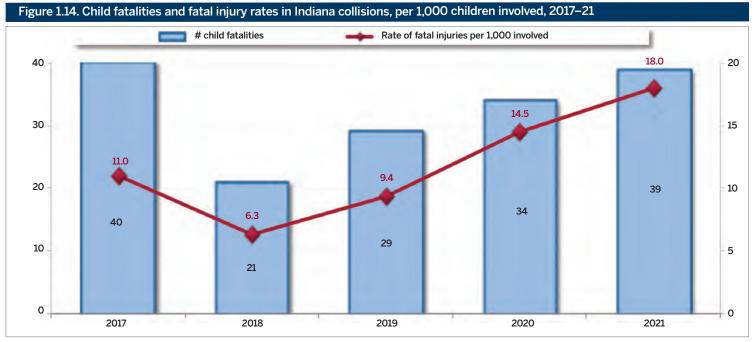
Source: Analysis provided by the Indiana University Public Policy Institute using data downloaded from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 8, 2022

# GOAL: Reducing fatalities and serious injuries among children

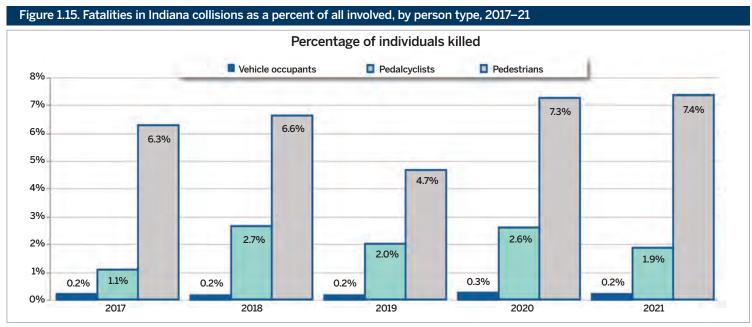
The total number of children killed in crashes increased from 34 in 2020 to 39 in 2021. (Figure 1.14). The rate of fatal injuries also rose between 2020 and 2021, from 15 to 18 per 1,000 children involved in crashes.

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

In 2021, non-motorists—pedestrians and pedalcyclists—represented less than 1% of people involved in traffic collisions. However, they made up 15% of Indiana's total traffic fatalities (not shown). The percentage of pedestrians killed in Indiana crashes increased from 5% in 2019 to 7% in 2020 and 2021 (Figure 1.15). The percentage of pedalcyclists who died in crashes fell from 3% to 2% between 2020 and 2021.



Source: 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 April 8, 2021



Source: 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 April 8, 2022.

Note: Animal-drawn vehicle operators are excluded



# COUNTY COMPARISONS

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# **COUNTY COMPARISONS BY SUBJECT AREA, 2021**

Understanding the spatial distribution of traffic collisions and injuries can assist officials in developing policies and targeting resources to address the many variables that may impact the geography of crashes. A variety of factors may influence the number and nature of traffic collisions that occur in a given area, including the size and makeup of the population, the number of registered vehicles and licensed drivers, the number of vehicle miles traveled (VMT), and, perhaps most importantly, human behaviors and social norms that may contribute to the likelihood of particular types of crashes occurring in regions throughout the state. The following tables and choropleth maps show various collision and injury rates in Indiana counties in 2021.

Note: Choropleth maps show counties grouped by quartiles.

# **Collision severity and injuries**

In 2021, 208,664 collisions occurred in Indiana, 829 of which were fatal. Counties averaged 2,268 collisions that same year, with an average of 9 fatal crashes (Table 2.1). Marion County ranked highest in the total number of collisions (37,003), and Clay County ranked highest in the percentage of all collisions that were fatal (1.4). The mean county rate of collisions per 100 million VMT was 236, and the median rate was also 236 (Map 2.1). Ohio (408), Tippecanoe (401), Elkhart (383), and Brown (360) counties had the highest rates of collisions per 100M VMT.

The total number of individuals involved in 2021 Indiana collisions was 340,367. Across all counties, there was an average of 3,700 people in crashes (Table 2.2). Marion County had the largest number of individuals involved (64,043) and the largest number of traffic fatalities (148). The median county traffic fatality rate per 100,000 people was 14 (Map 2.2), with White County having the highest rate per 100,000 (49) and Knox County had the lowest (3).

#### Speed-related collisions

Speed-related collisions accounted for 8% of all Indiana collisions in 2021, and 28% of all fatal collisions (Table 2.3). The average number of speed-related collisions per county was 190. Vanderburgh County (3%) had the lowest percentage of speed-related collisions, and Pike (17%), Lake (14%), and Martin (14%) counties had the highest percentages of collisions that were speed-related. The median county percent of speed-related collisions was 7%, and many counties with the highest percentages of speed-related collisions were clustered in the northern half of the state (Map 2.3).

## **Alcohol collisions**

Indiana collisions that involved an alcohol-impaired driver accounted for 2% of all Indiana collisions in 2021, and 11% of all fatal collisions (Table 2.4). The average number of alcohol-impaired collisions per county was 41, 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 8. Spencer (19 per 10,000), La Porte (18 per 10,000), and Cass (17 per 10,000) counties

had the highest rates of alcohol-impaired drivers in collisions. Benton (2 per 10,000), Union (2 per 10,000), and Ohio (2 per 10,000) counties had the lowest rates of alcohol-impaired drivers in collisions (Map 2.4).

## **Deer collisions**

Nearly 16,000 Indiana collisions in 2021 involved deer. Counties with the highest percentage of deer-involved collisions were clustered in areas outside of central Indiana in predominantly rural counties (Map 2.5). The mean percentage of deer-related collisions was 17%. Warren County (50%) and Pulaski County (48%) had the highest percentages of deer-involved collisions, while the urban counties of Marion (0.3%) and Lake (2%) had the lowest percentages of collisions that involved deer.

# **Restraint use**

Sixty percent of all passenger vehicle (passenger cars, pickup trucks, sport utility vehicles, and vans) occupants killed in Indiana collisions were unrestrained in 2021, while 19% of individuals suffering incapacitating injuries were unrestrained (Table 2.5). The median county percent of unrestrained passenger vehicle occupants injured in collisions was 22 (Map 2.6). Clay (52%), Switzerland (46%), and Orange (43%) counties had the highest rates of unrestrained occupants injured in collisions. Generally, urban and suburban counties in central and northern Indiana had lower percentages of unrestrained injuries.

# Young drivers

In 2021, 41,375 young drivers (ages 15 to 20) were involved in collisions (13% of all drivers involved). That same year, 57 young drivers were involved fatal collisions (Table 2.6). Wells County (19%) had the highest percentage of young drivers in collisions. The average county rate of young driver involvement in collisions was 101 per 1,000 licensed young drivers, and the median county rate was 98. Counties that are the locations of large universities (Delaware, Monroe, Vanderburgh, Tippecanoe, Vigo, and Marion) were among the highest rates of young driver involvement in collisions (Map 2.7), continuing a pattern observed year to year over the past decade.

# Motorcyclists involved in collisions

In 2021, 2,952 motorcyclists were involved in collisions, and 129 were killed in collisions (Table 2.7). The highest rates of motorcyclists involved in collisions occurred in the southern Indiana counties of Brown (41 per 1,000) and Martin (37 per 1,000) counties (Map 2.8).

## **Hit-and-run collisions**

Drivers in collisions resulting in injury or death are expected to remain or immediately return to the scene to provide proper identification (IC 9-26-1-1). Otherwise, the crash is considered a hit-and-run. In 2021, hit-and-run collisions accounted for 11% or 23,426 of the 208,664

collisions in Indiana. The average county percent of hit-and-run collisions was 6%, and the median county percent was 5% (Map 2.9). The urban counties of St. Joseph (21%), Marion (19%), Allen (17%), Monroe (16%) and Vigo (15%) counties had the highest hit-and-run collision rates.

## Work zone collisions

There were 5,153 work zone collisions in Indiana in 2021 (Map 2.10). The mean county rate of work zone collisions per 1,000 total collisions was 21, and the median rate was 13. 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 2021, Tipton (161), Boone (124), Hancock (72), and Shelby (70) counties had the highest rates of work zone collisions per 1,000 collisions.

# **County ranks**

Table 2.8 shows Indiana counties ranked by six collision metrics:

- Fatalities per 100K population
- Percentage of speed-related collisions
- Percentage of alcohol-impaired collisions
- Motorcyclists per 1,000 individuals involved in collisions
- · Percentage of unrestrained passenger vehicle injuries in collisions
- Young drivers in collisions per 1,000 licensed drivers.

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

Table 2.1. India	na collisions,	by severity an	d county, 20	021						
	Total collisions Fatal					Nonfa	tal injury	Property damage only		
	Count	County rank	Count	As % county total	County rank (on %)	Count	As % county total	Count	As % county total	
All counties	208,664	N/A	829	0.4	N/A	28,982	13.9	178,853	85.7	
Mean	2,268	N/A	9	0.6	N/A	315	13.2	1,944	86.3	
Median	972	N/A	5	0.5	N/A	124	13	826	86	
Minimum	85	N/A	1	0.1	N/A	6	4.9	71	72.6	
Maximum	37,003	N/A	140	1.4	N/A	5,476	26.8	31,387	94.5	
Adams	754	55	6	0.8	19	107	14.2	641	85.0	
Allen	12,761	3	43	0.3	67	1,905	14.9	10,813	84.7	
Bartholomew	1,769	27	15	0.8	17	428	24.2	1,326	75.0	
Benton	85	91	1	1.2	7	13	15.3	71	83.5	
Blackford	249	86	2	0.8	18	27	10.8	220	88.4	
Boone	2,030	24	7	0.3	64	248	12.2	1,775	87.4	
Brown	466	74	3	0.6	27	63	13.5	400	85.8	
Carroll	508	71	3	0.6	35	58	11.4	447	88.0	
Cass	1,189	38	3	0.3	79	145	12.2	1,041	87.6	
Clark	4,041	11	4	0.1	91	506	12.5	3,531	87.4	
Clay	637	61	9	1.4	1	86	13.5	542	85.1	
Clinton	975	46	10	1.0	12	127	13.0	838	85.9	
Crawford	329	81	2	0.6	31	41	12.5	286	86.9	
Daviess	324	82	1	0.3	71	79	24.4	244	75.3	
Dearborn	1,467	31	3	0.2	86	145	9.9	1,319	89.9	
Decatur	787	54	5	0.6	28	121	15.4	661	84.0	
DeKalb	1,315	34	5	0.4	55	135	10.3	1,175	89.4	
Delaware	3,780	14	16	0.4	51	568	15.0	3,196	84.6	
Dubois	1,311	35	5	0.4	54	150	11.4	1,156	88.2	
Elkhart	7,551	6	26	0.3	65	931	12.3	6,594	87.3	
	563		7	1.2	3	79		477	84.7	
Fayette		67					14.0			
Floyd	2,564	18	6	0.2	82	338	13.2	2,220	86.6	
Fountain	367	80	1	0.3	75 46	46	12.5	320	87.2	
Franklin	639	60	3	0.5	46	69	10.8	567	88.7	
Fulton	658	58	2	0.3	72	63	9.6	593	90.1	
Gibson	968	47	3	0.3	70	151	15.6	814	84.1	
Grant	2,197	22	13	0.6	34	224	10.2	1,960	89.2	
Greene	833	51	3	0.4	59	127	15.2	703	84.4	
Hamilton	7,707	5	16	0.2	84	897	11.6	6,794	88.2	
Hancock	1,965	25	7	0.4	60	313	15.9	1,645	83.7	
Harrison	1,176	40	2	0.2	89	171	14.5	1,003	85.3	
Hendricks	4,917	10	13	0.3	76	591	12.0	4,313	87.7	
Henry	1,089	42	10	0.9	16	171	15.7	908	83.4	
Howard	2,243	21	12	0.5	42	321	14.3	1,910	85.2	
Huntington	1,138	41	9	0.8	20	130	11.4	999	87.8	
Jackson	1,884	26	4	0.2	83	180	9.6	1,700	90.2	
Jasper	1,194	37	4	0.3	68	163	13.7	1,027	86.0	
Jay	570	66	2	0.4	62	73	12.8	495	86.8	
Jefferson	857	50	3	0.4	63	106	12.4	748	87.3	
Jennings	614	64	6	1.0	13	75	12.2	533	86.8	
Johnson	3,893	12	7	0.2	88	573	14.7	3,313	85.1	
Knox	1,203	36	1	0.1	92	130	10.8	1,072	89.1	
Kosciusko	2,533	19	11	0.4	50	368	14.5	2,154	85.0	
LaGrange	1,084	43	10	0.9	15	113	10.4	961	88.7	
Lake	18,435	2	68	0.4	57	2,551	13.8	15,816	85.8	
La Porte	3,616	16	20	0.6	40	515	14.2	3,081	85.2	
Lawrence	1,466	32	3	0.2	85	128	8.7	1,335	91.1	
	3,784	13	26	0.7	24	505	13.3	3,253	86.0	

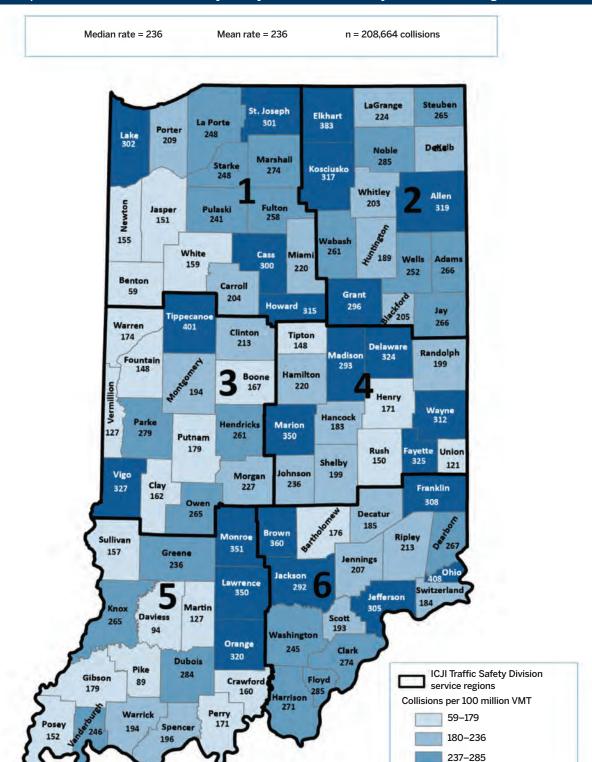
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Table 2.1. Indiana collisions, by severity and county, 2021 (continued)

	Total collisions			Fatal		Nonfa	tal injury	Property (	damage only
	Count	County rank	Count	As % county total	County rank (on %)	Count	As % county total	Count	As % county total
Marion	37,003	1	140	0.4	56	5,476	14.8	31,387	84.8
Marshall	1,591	29	7	0.4	49	173	10.9	1,411	88.7
Martin	154	90	1	0.6	26	24	15.6	129	83.8
Miami	1,002	44	5	0.5	44	113	11.3	884	88.2
Monroe	3,643	15	11	0.3	73	626	17.2	3,006	82.5
Montgomery	901	48	3	0.3	69	143	15.9	755	83.8
Morgan	2,055	23	11	0.5	41	272	13.2	1,772	86.2
Newton	381	79	4	1.0	10	54	14.2	323	84.8
Noble	1,189	38	7	0.6	36	154	13.0	1,028	86.5
Ohio	164	88	1	0.6	29	8	4.9	155	94.5
Orange	550	68	2	0.4	58	78	14.2	470	85.5
Owen	517	70	4	0.8	22	64	12.4	449	86.8
Parke	499	72	3	0.6	33	40	8.0	456	91.4
Perry	396	78	1	0.3	78	40	10.1	355	89.6
Pike	164	88	1	0.6	29	44	26.8	119	72.6
Porter	4,919	9	14	0.3	74	739	15.0	4,166	84.7
Posey	538	69	3	0.6	39	61	11.3	474	88.1
Pulaski	436	75	2	0.5	47	49	11.2	385	88.3
Putnam	987	45	4	0.4	52	121	12.3	862	87.3
Randolph	480	73	5	1.0	11	55	11.5	420	87.5
Ripley	711	56	4	0.6	38	79	11.1	628	88.3
Rush	321	83	3	0.9	14	58	18.1	260	81.0
St. Joseph	8,447	4	30	0.4	61	1,217	14.4	7,200	85.2
Scott	629	63	8	1.3	2	82	13.0	539	85.7
Shelby	1,378	33	7	0.5	43	212	15.4	1,159	84.1
Spencer	647	59	7	1.1	9	76	11.7	564	87.2
Starke	592	65	7	1.2	6	60	10.1	525	88.7
Steuben	1,630	28	3	0.2	87	125	7.7	1,502	92.1
Sullivan	409	77	5	1.2	5	41	10.0	363	88.8
Switzerland	166	87	1	0.6	32	22	13.3	143	86.1
Tippecanoe	6,308	7	15	0.2	80	892	14.1	5,401	85.6
Tipton	416	76	2	0.5	45	73	17.5	341	82.0
Union	85	91	1	1.2	7	6	7.1	78	91.8
Vanderburgh	5,110	8	12	0.2	81	1,037	20.3	4,061	79.5
Vermillion	298	84	2	0.7	25	34	11.4	262	87.9
Vigo	3,508	17	12	0.3	66	510	14.5	2,986	85.1
Wabash	831	52	6	0.7	23	102	12.3	723	87.0
Warren	254	85	1	0.4	53	25	9.8	228	89.8
Warrick	1,529	30	7	0.5	48	210	13.7	1,312	85.8
Washington	634	62	5	0.8	21	103	16.2	526	83.0
Wayne	2,314	20	6	0.3	77	332	14.3	1,976	85.4
Wells	698	57	4	0.6	37	72	10.3	622	89.1
White	807	53	10	1.2	4	104	12.9	693	85.9
Whitley	888	49	1	0.1	90	122	13.7	765	86.1
Unknown	16	N/A	0	N/A	N/A	3	N/A	13	N/A
OT INTIOWER	10	IN/A		IVA	IV/A	J 3	IN/A	13	IN/A

Note: Nonfatal injury collisions include collisions with incapacitating, non-incapacitating and possible injuries.

Map 2.1. Traffic collisions per 100M vehicle miles traveled, by county and ICJI Traffic Safety Division service region, 2021



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 April 8, 2022; Indiana Department of Transportation, county-level VMT (2020), current as of March 24, 2022.

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Table 2.2. Individuals involved in Indiana collisions, by injury status and county, 2021

	Total individuals 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
All counties	340,367	N/A	897	0.3	N/A	17,157	5.0	25,526	7.5	296,787	87.2
Mean	3,700	N/A	10	0.4	N/A	186	5.5	277	7.4	3,226	86.7
Median	1,445	N/A	6	0.3	N/A	69	5.3	106	7.1	1,258	87.1
Minimum	121	N/A	1	0.1	N/A	4	0.9	5	2.6	100	72.6
Maximum	64,043	N/A	148	1.4	N/A	3,528	17.7	4,465	13.1	55,902	94.4
Adams	1,168	54	6	0.5	23	58	5.0	120	10.3	984	84.2
Allen	21,040	3	46	0.2	67	966	4.6	1,854	8.8	18,174	86.4
Bartholomew	3,083	26	16	0.5	21	259	8.4	393	12.7	2,415	78.3
Benton	121	92	1	0.8	7	14	11.6	6	5.0	100	82.6
Blackford	334	85	2	0.6	16	15	4.5	31	9.3	286	85.6
Boone	3,315	25	8	0.2	60	137	4.1	225	6.8	2,945	88.8
Brown	618	75	3	0.5	27	43	7.0	50	8.1	522	84.5
Carroll	662	73	3	0.5	34	34	5.1	60	9.1	565	85.3
Cass	1,803	37	3	0.2	80	104	5.8	123	6.8	1,573	87.2
Clark	6,730	12	4	0.1	91	271	4.0	477	7.1	5,978	88.8
Clay	986	59	10	1.0	3	75	7.6	45	4.6	856	86.8
Clinton	1,453	46	13	0.9	6	60	4.1	123	8.5	1,257	86.5
Crawford	426	83	2	0.5	31	16	3.8	31	7.3	377	88.5
Daviess	517	79	1	0.2	74	67	13.0	59	11.4	390	75.4
Dearborn	2,266	30	3	0.1	87	101	4.5	112	4.9	2,050	90.5
Decatur	1,186	52	5	0.4	37	81	6.8	110	9.3	990	83.5
DeKalb	1,902	35	6	0.3	50	94	4.9	93	4.9	1,709	89.9
Delaware	6,129	13	19	0.3	53	276	4.5	594	9.7	5,240	85.5
Dubois	1,995	34	5	0.3	58	83	4.2	130	6.5	1,777	89.1
Elkhart	12,566	6	29	0.2	64	712	5.7	657	5.2	11,168	88.9
Fayette	881	64	8	0.9	5	56	6.4	68	7.7	749	85.0
Floyd	4,264	18	6 1	0.1 0.2	84	224 25	5.3 5.1	268	6.3	3,766	88.3 86.3
Fountain	489 866	81 65	3	0.2	70 46	49	5.1	41 48	8.4 5.5	422 766	88.5
Franklin Fulton	912	62	2	0.3	66	32	3.5	48 56	5.5 6.1	822	90.1
Gibson	1,519	44	3	0.2	73	94	6.2	144	9.5	1,278	84.1
Grant	3,345	24	15	0.2	35	126	3.8	221	6.6	2,983	89.2
Greene	1,116	55	3	0.4	57	87	7.8	99	8.9	927	83.1
Hamilton	13,200	5	18	0.3	85	574	4.3	937	7.1	11,671	88.4
Hancock	3,432	23	7	0.2	72	246	7.2	235	6.8	2,944	85.8
Harrison	1,815	36	2	0.1	88	102	5.6	150	8.3	1,561	86.0
Hendricks	8,693	9	14	0.2	81	340	3.9	515	5.9	7,824	90.0
Henry	1,703	41	10	0.6	17	149	8.7	97	5.7	1,447	85.0
Howard	3,863	19	12	0.3	52	238	6.2	271	7.0	3,342	86.5
Huntington	1,646	42	9	0.5	19	67	4.1	125	7.6	1,445	87.8
Jackson	2,934	27	6	0.2	70	71	2.4	180	6.1	2,677	91.2
Jasper	1,758	39	4	0.2	65	92	5.2	152	8.6	1,510	85.9
Jay	814	66	2	0.2	59	65	8.0	54	6.6	693	85.1
Jefferson	1,380	49	3	0.2	68	56	4.1	93	6.7	1,228	89.0
Jennings	921	61	7	0.8	12	33	3.6	66	7.2	815	88.5
Johnson	6,896	11	7	0.1	89	361	5.2	455	6.6	6,073	88.1
Knox	1,774	38	1	0.1	92	61	3.4	112	6.3	1,600	90.2
Kosciusko	3,761	20	15	0.4	40	35	0.9	491	13.1	3,220	85.6
LaGrange	1,643	43	10	0.6	15	105	6.4	73	4.4	1,455	88.6
Lake	32,164	2	75	0.2	61	1,471	4.6	2,230	6.9	28,388	88.3
La Porte	5,813	16	20	0.3	47	231	4.0	550	9.5	5,012	86.2
Lawrence	2,235	32	3	0.1	86	77	3.4	126	5.6	2,029	90.8
Madison	5,925	14	28	0.5	30	400	6.8	390	6.6	5,107	86.2
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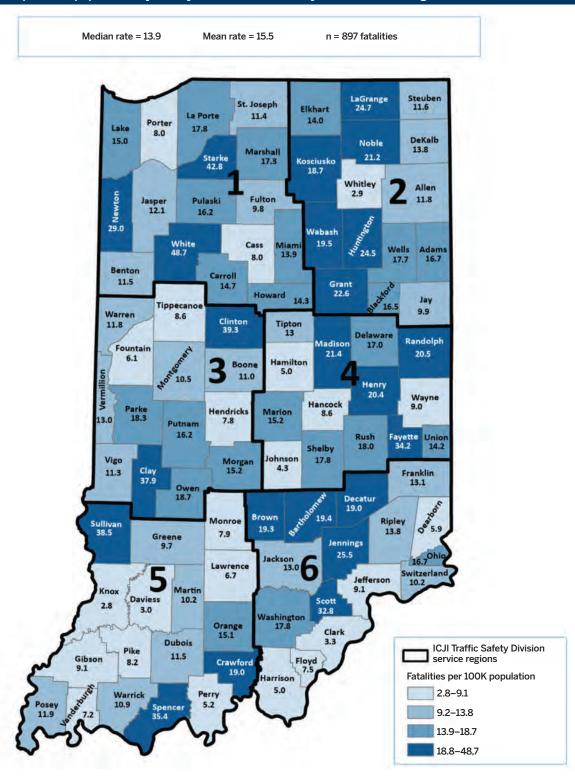
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Table 2.2. Individuals involved in Indiana collisions, by injury status and county, 2021 (continued)

	Total indivi	duals involved		Fatal		Incap	acitating	Non-inc	capacitating	Other/no injury	
	Count	County rank	Count	As % county total	County rank (on %)	Count	As % county total	Count	As % county total	Count	As % county total
Marion	64,043	1	148	0.2	63	3,528	5.5	4,465	7.0	55,902	87.3
Marshall	2,247	31	8	0.4	45	133	5.9	120	5.3	1,986	88.4
Martin	219	88	1	0.5	33	15	6.8	13	5.9	190	86.8
Miami	1,499	45	5	0.3	48	59	3.9	111	7.4	1,324	88.3
Monroe	5,823	15	11	0.2	75	254	4.4	644	11.1	4,914	84.4
Montgomery	1,366	50	4	0.3	56	76	5.6	129	9.4	1,157	84.7
Morgan	3,497	21	11	0.3	51	175	5.0	249	7.1	3,062	87.6
Newton	507	80	4	0.8	11	44	8.7	35	6.9	424	83.6
Noble	1,704	40	10	0.6	18	94	5.5	150	8.8	1,450	85.1
Ohio	195	90	1	0.5	24	5	2.6	5	2.6	184	94.4
Orange	774	69	3	0.4	42	47	6.1	78	10.1	646	83.5
Owen	776	68	4	0.5	22	62	8.0	48	6.2	662	85.3
Parke	631	74	3	0.5	29	38	6.0	21	3.3	569	90.2
Perry	597	76	1	0.2	79	14	2.3	45	7.5	537	89.9
Pike	226	87	1	0.4	36	40	17.7	21	9.3	164	72.6
Porter	8,090	10	14	0.2	78	454	5.6	612	7.6	7,010	86.7
Posey	755	70	3	0.4	41	30	4.0	59	7.8	663	87.8
Pulaski	558	77	2	0.4	44	41	7.3	39	7.0	476	85.3
Putnam	1,436	47	6	0.4	38	85	5.9	87	6.1	1,258	87.6
Randolph	693	71	5	0.7	13	38	5.5	47	6.8	603	87.0
Ripley	992	57	4	0.4	39	37	3.7	82	8.3	869	87.6
Rush	446	82	3	0.7	14	43	9.6	32	7.2	368	82.5
St. Joseph	13,355	4	31	0.2	62	785	5.9	1,013	7.6	11,526	86.3
Scott	992	57	8	0.8	8	61	6.1	58	5.8	865	87.2
Shelby	2,132	33	8	0.4	43	114	5.3	177	8.3	1,833	86.0
Spencer	885	63	7	0.8	10	67	7.6	61	6.9	750	84.7
Starke	807	67	10	1.2	2	51	6.3	40	5.0	706	87.5
Steuben	2,270	29	4	0.2	76	67	3.0	106	4.7	2,093	92.2
Sullivan	553	78	8	1.4	1	15	2.7	45	8.1	485	87.7
Switzerland	208	89	1	0.5	28	5	2.4	25	12.0	177	85.1
Tippecanoe	10,218	7	16	0.2	82	140	1.4	1,036	10.1	9,026	88.3
Tipton	665	72	2	0.3	54	34	5.1	69	10.4	560	84.2
Union	124	91	1	0.8	8	4	3.2	5	4.0	114	91.9
Vanderburgh	9,075	8	13	0.1	83	681	7.5	887	9.8	7,494	82.6
Vermillion	403	84	2	0.5	26	29	7.2	17	4.2	355	88.1
Vigo	5,647	17	12	0.2	69	339	6.0	376	6.7	4,920	87.1
Wabash	1,177	53	6	0.5	25	76	6.5	62	5.3	1,033	87.8
Warren	304	86	1	0.3	49	19	6.3	15	4.9	269	88.5
Warrick	2,388	28	7	0.3	55	33	1.4	274	11.5	2,074	86.9
Washington	928	60	5	0.5	20	45	4.8	105	11.3	773	83.3
Wayne	3,453	22	6	0.5	77	173	5.0	276	8.0	2,998	os.s 86.8
	1,068		5					79		2,996 956	89.5
Wells White	1,068	56 51	12	0.5 1.0	32	28 65	2.6 5.5	79 75	7.4	1,037	89.5 87.2
					4				6.3		
Whitley	1,390	48	1	0.1	90	81	5.8	93	6.7	1,215	87.4
Unknown	0	N/A	0	N/A	N/A	0	N/A	0	N/A	0	N/A

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

Map 2.2. Traffic fatalities per 100k population, by county and ICJI Traffic Safety Division service region, 2021



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 April 8, 2022; U.S. Census Bureau, Population estimates for Indiana counties, 2021, provided by the Indiana Business Research Center, Indiana University.

		All collisions		I	Fatal	Nonfa	tal injury	Property	damage only
	Speed-related collisions	Speed-related as % of total collisions	County rank (on %)	Count	Speed-related as % of total fatal collisions	Count	Speed-related as % of total nonfatal injury collisions	Count	Speed-related as % of total property damage collisions
All counties	17,470	8.4	N/A	229	27.6	3,735	12.9	13,506	7.6
Mean	190	7.6	N/A	2	22.6	41	13.2	147	6.8
Median	75	7.1	N/A	1	20.0	15	13	54	6.3
Minimum	3	3.2	N/A	0	0.0	1	4.8	2	2.6
Maximum	3,092	17.1	N/A	46	100.0	706	32.5	2,340	16.8
Adams	41	5.4	74	0	0.0	11	10.3	30	4.7
Allen	1,127	8.8	24	14	32.6	248	13.0	865	8.0
Bartholomew	152	8.6	29	3	20.0	37	8.6	112	8.4
Benton	8	9.4	20	0	0.0	1	7.7	7	9.9
Blackford	13	5.2	76	0	0.0	2	7.4	11	5.0
Boone	132	6.5	57	1	14.3	26	10.5	105	5.9
Brown	49	10.5	13	0	0.0	13	20.6	36	9.0
Carroll	44	8.7	25	1	33.3	12	20.7	31	6.9
Cass	65	5.5	73	0	0.0	17	11.7	48	4.6
Clark	297	7.3	43	0	0.0	62	12.3	235	6.7
Clay	30	4.7	86	1	11.1	10	11.6	19	3.5
Clinton	90	9.2	22	4	40.0	22	17.3	64	7.6
Crawford	34	10.3	14	0	0.0	8	19.5	26	9.1
Daviess	25	7.7	39	0	0.0	9	11.4	16	6.6
Dearborn	96	6.5	55	1	33.3	18	12.4	77	5.8
Decatur	104	13.2	6	2	40.0	14	11.6	88	13.3
DeKalb	149	11.3	8	1	20.0	29	21.5	119	10.1
Delaware	222	5.9	67	6	37.5	44	7.7	172	5.4
Dubois	99	7.6	41	1	20.0	14	9.3	84	7.3
Elkhart	690	9.1	23	8	30.8	111	11.9	571	8.7
Fayette	36	6.4	58	2	28.6	11	13.9	23	4.8
Floyd	117	4.6	87	1	16.7	36	10.7	80	3.6
Fountain	19	5.2	78	0	0.0	6	13.0	13	4.1
Franklin	63	9.9	15	1	33.3	12	17.4	50	8.8
Fulton	40	6.1	63	0	0.0	7	11.1	33	5.6
Gibson	81	8.4	32	0	0.0	25	16.6	56	6.9
Grant	176	8.0	35	4	30.8	28	12.5	144	7.3
Greene	46	5.5	70	1	33.3	15	11.8	30	4.3
Hamilton	398	5.2	79	7	43.8	76	8.5	315	4.6
Hancock	122	6.2	62	0	0.0	36	11.5	86	5.2
Harrison	81	6.9	53	1	50.0	20	11.7	60	6.0
Hendricks	310	6.3	61	3	23.1	52	8.8	255	5.9
Henry	77	7.1	48	3	30.0	23	13.5	51	5.6
Howard	111	4.9	82	1	8.3	29	9.0	81	4.2
Huntington	98	8.6	28	1	11.1	21	16.2	76	7.6
Jackson	128	6.8	54	1	25.0	24	13.3	103	6.1
Jasper	114	9.5	19	1	25.0	28	17.2	85	8.3
Jay	25	4.4	89	1	50.0	9	12.3	15	3.0
Jefferson	60	7.0	51	1	33.3	15	14.2	44	5.9
Jennings	37	6.0	65	1	16.7	14	18.7	22	4.1
Johnson	248	6.4	60	1	14.3	56	9.8	191	5.8
Knox	58	4.8	83	0	0.0	10	7.7	48	4.5
Kosciusko	132	5.2	77	3	27.3	23	6.3	106	4.9
LaGrange	114	10.5	12	4	40.0	15	13.3	95	9.9
Lake	2,627	14.3	3	30	44.1	521	20.4	2,076	13.1
La Porte	400	11.1	10	2	10.0	84	16.3	314	10.2
Lawrence	82	5.6	69	1	33.3	18	14.1	63	4.7
Madison	166	4.4	88	3	11.5	34	6.7	129	4.0

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 Table 2.3. Indiana speed-related collisions, by severity and county, 2021 (continued)

	All collisions				Fatal	Nonfa	atal injury	Property damage only	
	Speed-related collisions	Speed-related as % of total collisions	County rank (on %)	Count	Speed-related as % of total fatal collisions	Count	Speed-related as % of total nonfatal injury collisions	Count	Speed-related as % of total property damage collisions
Marion	3,092	8.4	33	46	32.9	706	12.9	2,340	7.5
Marshall	124	7.8	36	1	14.3	15	8.7	108	7.7
Martin	22	14.3	2	0	0.0	3	12.5	19	14.7
Miami	78	7.8	37	1	20.0	13	11.5	64	7.2
Monroe	406	11.1	9	4	36.4	103	16.5	299	9.9
Montgomery	52	5.8	68	2	66.7	10	7.0	40	5.3
Morgan	175	8.5	31	2	18.2	39	14.3	134	7.6
Newton	51	13.4	5	2	50.0	12	22.2	37	11.5
Noble	98	8.2	34	0	0.0	21	13.6	77	7.5
Ohio	6	3.7	90	0	0.0	1	12.5	5	3.2
Orange	39	7.1	47	2	100.0	14	17.9	23	4.9
Owen	33	6.4	59	0	0.0	6	9.4	27	6.0
Parke	43	8.6	27	1	0.0	13	32.5	29	6.4
Perry	34	8.6	30	1	100.0	5	12.5	28	7.9
Pike	28	17.1	1	0	0.0	8	18.2	20	16.8
Porter	483	9.8	16	2	14.3	94	12.7	387	9.3
Posey	27	5.0	80	2	66.7	10	16.4	15	3.2
Pulaski	21	4.8	84	0	0.0	3	6.1	18	4.7
Putnam	104	10.5	11	1	25.0	18	14.9	85	9.9
Randolph	24	5.0	81	1	20.0	3	5.5	20	4.8
Ripley	39	5.5	72	1	25.0	8	10.1	30	4.8
Rush	21	6.5	56	1	33.3	7	12.1	13	5.0
St. Joseph	651	7.7	40	7	23.3	138	11.3	506	7.0
Scott	38	6.0	64	5	62.5	6	7.3	27	5.0
Shelby	134	9.7	17	2	28.6	20	9.4	112	9.7
Spencer	56	8.7	26	1	14.3	17	22.4	38	6.7
Starke	46	7.8	38	2	28.6	11	18.3	33	6.3
Steuben	120	7.4	42	1	33.3	23	18.4	96	6.4
Sullivan	22	5.4	75	0	0.0	6	14.6	16	4.4
Switzerland	12	7.2	45	0	0.0	3	13.6	9	6.3
Tippecanoe	870	13.8	4	5	33.3	177	19.8	688	12.7
Tipton	39	9.4	21	1	50.0	5	6.8	33	9.7
Union	3	3.5	91	0	0.0	1	16.7	2	2.6
Vanderburgh	166	3.2	92	3	25.0	53	5.1	110	2.7
Vermillion	21	7.0	50	0	0.0	3	8.8	18	6.9
Vigo	248	7.1	49	6	50.0	46	9.0	196	6.6
Wabash	58	7.0	52	1	16.7	9	8.8	48	6.6
Warren	14	5.5	71	0	0.0	3	12.0	11	4.8
Warrick	73	4.8	85	3	42.9	10	4.8	60	4.6
Washington	46	7.3	44	1	20.0	15	14.6	30	5.7
Wayne	223	9.6	18	2	33.3	66	19.9	155	7.8
Wells	41	5.9	66	0	0.0	11	15.3	30	4.8
White	92	11.4	7	2	20.0	27	26.0	63	9.1
Whitley	64	7.2	46	0	0.0	17	13.9	47	6.1
Unknown	0	N/A	N/A	0	N/A	0	N/A	1	N/A

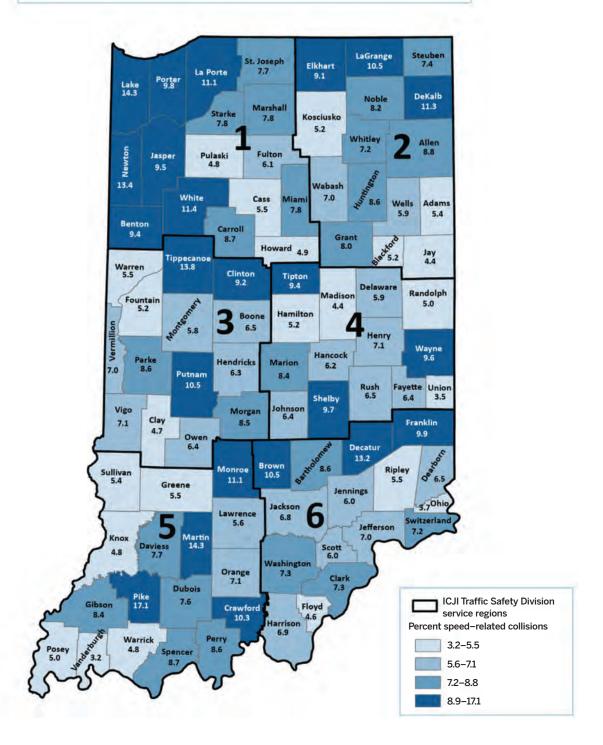
<sup>1)</sup> Percent calculations represent the percent of total county collisions (presented in Table 2.1) in each injury category that are speed-related.

2) Nonfatal injury collisions include collisions with incapacitating, non-incapacitating, and possible injuries.

3) A collision is identified as speed-related if any one of the following conditions is met: (a) unsafe speed or speed too fast for weather conditions is listed as the primary or contributing factor of the collision; (b) a vehicle driver is issued a speeding citation.

Map 2.3. Percentage of Indiana county collisions that involved a speeding driver, by ICJI Traffic Safety Division service region, 2021





		Total		Fatal	Nont	fatal injury	Prope	erty damage
County		Alcohol-impaired as % of total Count collisions		Alcohol-impaired as % of total fatal Count collisions		Alcohol-impaired as % of total nonfatal injury collisions	Count	Alcohol-impaired as % of total property damage collisions
All counties	3,773	1.8	93	11.2	Count 886	3.1	2,794	1.6
Mean	41	2.1	1	7.0	10	3.3	30	1.8
Median	20	1.8	0	0.0	4	3.1	14	1.6
Minimum	1	0.6	0	0.0	0	0.0	1	0.5
Maximum	392	5.9	30	50.0	114	8.3	258	5.7
Adams	9	1.2	0	0.0	4	3.7	5	0.8
Allen	374	2.9	8	18.6	114	6.0	252	2.3
Bartholomew	32	1.8	1	6.7	7	1.6	24	1.8
Benton	1	1.8	0	0.0	0	0.0	1	1.4
Blackford	3	1.2	1	0.0 N/A	1	3.7	1	0.5
	28	1.4	1		5	2.0	22	1.2
Boone				14.3				
Brown	10	2.1	0	0.0	3	4.8	7 17	1.8
Carroll	21	4.1	0	0.0	4	6.9	17	3.8
Class	44	3.7	0	0.0	10	6.9	34	3.3
Clark	51	1.3	0	0.0	11	2.2	40	1.1
Clay	11	1.7 1.7	0	0.0	5	5.8	6	1.1
Clinton	17		1	10.0	3	2.4	13	1.6
Crawford	6	1.8	0	0.0	2	4.9	4	1.4
Daviess	19	5.9	0	0.0	5	6.3	14	5.7
Dearborn	40	2.7	0	0.0	3	2.1	37	2.8
Decatur	14	1.8	0	0.0	5	4.1	9	1.4
DeKalb	28	2.1	0	0.0	6	4.4	22	1.9
Delaware	60	1.6	1	6.3	17	3.0	42	1.3
Dubois	33	2.5	0	0.0	11	7.3	22	1.9
Elkhart	132	1.7	4	15.4	29	3.1	99	1.5
Fayette	12	2.1	1	14.3	3	3.8	8	1.7
Floyd	48	1.9	0	0.0	11	3.3	37	1.7
Fountain	5	1.4	0	0.0	0	0.0	5	1.6
Franklin	10	1.6	1	33.3	0	0.0	9	1.6
Fulton	5	0.8	0	0.0	1	1.6	4	0.7
Gibson	13	1.3	0	0.0	3	2.0	10	1.2
Grant	22	1.0	0	0.0	4	1.8	18	0.9
Greene	11	1.3	0	0.0	2	1.6	9	1.3
Hamilton	162	2.1	1	6.3	31	3.5	130	1.9
Hancock	24	1.2	1	14.3	5	1.6	18	1.1
Harrison	16	1.4	0	0.0	1	0.6	15	1.5
Hendricks	53	1.1	2	15.4	8	1.4	43	1.0
Henry	20	1.8	0	0.0	6	3.5	14	1.5
Howard	60	2.7	2	16.7	11	3.4	47	2.5
Huntington	30	2.6	0	0.0	6	4.6	24	2.4
Jackson	50	2.7	1	25.0	12	6.7	37	2.2
Jasper	22	1.8	0	0.0	7	4.3	15	1.5
Jay	7	1.2	0	0.0	2	2.7	5	1.0
Jefferson	10	1.2	0	0.0	1	0.9	9	1.2
Jennings	9	1.5	0	0.0	0	0.0	9	1.7
Johnson	63	1.6	0	0.0	8	1.4	55	1.7
Knox	16	1.3	0	0.0	3	2.3	13	1.2
Kosciusko	55	2.2	3	27.3	13	3.5	39	1.8
LaGrange	26	2.4	0	0.0	9	8.0	17	1.8
Lake	309	1.7	5	7.4	76	3.0	228	1.4
La Porte	136	3.8	2	10.0	33	6.4	101	3.3
Lawrence	20	1.4	0	0.0	3	2.3	17	1.3
Madison	60	1.6	3	11.5	19	3.8	38	1.2

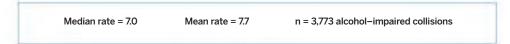
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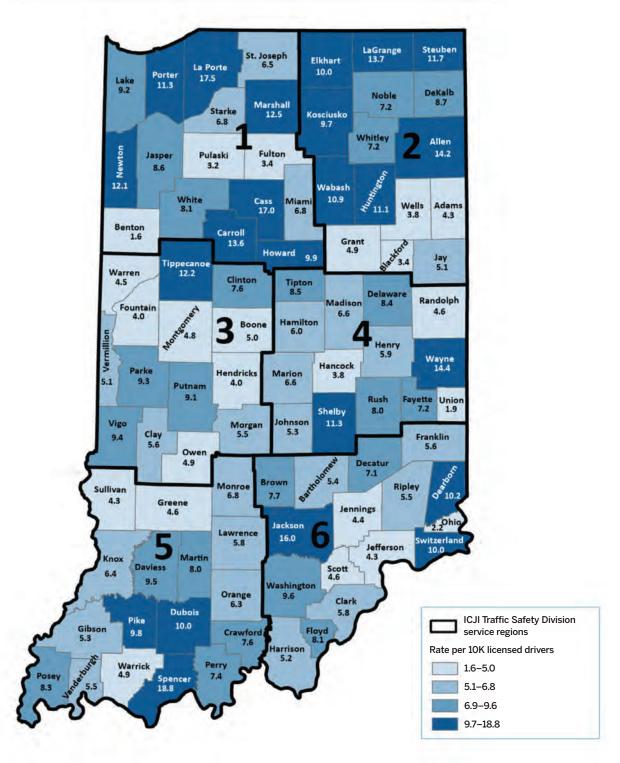
Table 2.4. Indiana collisions involving an alcohol-impaired driver, by severity and county, 2021 (continued)

		Total		Fatal	Nonf	fatal injury	Property damage		
County	Count	Alcohol-impaired as % of total collisions	Count	Alcohol-impaired as % of total fatal collisions	Count	Alcohol-impaired as % of total nonfatal injury collisions	Count	Alcohol-impaired as % of total property damage collisions	
Marion	392	1.1	30	21.4	104	1.9	258	0.8	
Marshall	41	2.6	1	14.3	14	8.1	26	1.8	
Martin	6	3.9	0	0.0	2	8.3	4	3.1	
Miami	16	1.6	0	0.0	3	2.7	13	1.5	
Monroe	56	1.5	1	9.1	8	1.3	47	1.6	
Montgomery	13	1.4	0	0.0	3	2.1	10	1.3	
Morgan	31	1.5	2	18.2	4	1.5	25	1.4	
Newton	13	3.4	0	0.0	4	7.4	9	2.8	
Noble	24	2.0	0	0.0	8	5.2	16	1.6	
Ohio	1	0.6	0	0.0	0	0.0	1	0.6	
Orange	9	1.6	0	0.0	1	1.3	8	1.7	
Owen	8	1.5	0	0.0	4	6.3	4	0.9	
Parke	10	2.0	0	0.0	1	2.5	9	2.0	
Perry	10	2.5	0	0.0	0	0.0	10	2.8	
Pike	9	5.5	0	0.0	3	6.8	6	5.0	
Porter	148	3.0	0	0.0	30	4.1	118	2.8	
Posey	16	3.0	1	33.3	4	6.6	11	2.3	
Pulaski	3	0.7	0	0.0	0	0.0	3	0.8	
Putnam	24	2.4	0	0.0	9	7.4	15	1.7	
Randolph	8	1.7	1	20.0	2	3.6	5	1.2	
Ripley	12	1.7	1	25.0	2	2.5	9	1.4	
Rush	10	3.1	1	33.3	3	5.2	6	2.3	
St. Joseph	116	1.4	4	13.3	15	1.2	97	1.3	
Scott	8	1.3	0	0.0	0	0.0	8	1.5	
Shelby	38	2.8	0	0.0	10	4.7	28	2.4	
Spencer	29	4.5	1	14.3	5	6.6	23	4.1	
Starke	12	2.0	0	0.0	3	5.0	9	1.7	
Steuben	30	1.8	0	0.0	3	2.4	27	1.8	
Sullivan	6	1.5	1	20.0	2	4.9	3	0.8	
Switzerland	7	4.2	0	0.0	0	0.0	7	4.9	
	135	2.1	1	6.7	36	4.0	98	1.8	
Tippecanoe	10	2.4	1	50.0	0	0.0	90	2.6	
Tipton Union	10	1.2	0	0.0	0	0.0	1	1.3	
	67	1.3	3	25.0	17	1.6	47	1.3	
Vanderburgh	6	2.0	0	0.0	0	0.0		2.3	
Vermillion	63	2.0 1.8	0	0.0	20	3.9	6 43	2.3	
Vigo									
Wassan	25	3.0	1	16.7	3	2.9	21	2.9	
Warren	3	1.2	0	0.0	0	0.0	3	1.3	
Warrick	24	1.6	1	14.3	10	4.8	13	1.0	
Washington	20	3.2	2	40.0	6	5.8	12	2.3	
Wayne	64	2.8	0	0.0	17	5.1	47	2.4	
Wells	8	1.1	0	0.0	2	2.8	6	1.0	
White	15	1.9	1	10.0	1	1.0	13	1.9	
Whitley	19	2.1	0	0.0	4	3.3	15	2.0	
Unknown	0	N/A	0	N/A	0	N/A	0	N/A	

- 1) Percentage calculations represent the percent of total county collisions (presented in Table 2.1) in each injury category that are alcohol-impaired.
- Includes collisions where at least one alcohol-impaired driver was involved.
   Nonfatal injury includes incapacitating, non-incapacitating, and possible injury collisions.
- 4) A collision is considered alcohol-impaired when any vehicle driver involved has a BAC test result at or above 0.08 g/dL.

Map 2.4. Indiana alcohol-impaired collisions per 10,000 licensed drivers, by county, and ICJI Traffic Safety Division service region, 2021





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 April 8, 2022; Indiana Bureau of Motor Vehicles, Licensed drivers (data), downloaded May 25, 2022.

Map 2.5. Percentage of county collisions that involved deer, by ICJI Traffic Safety Division service region, 2021



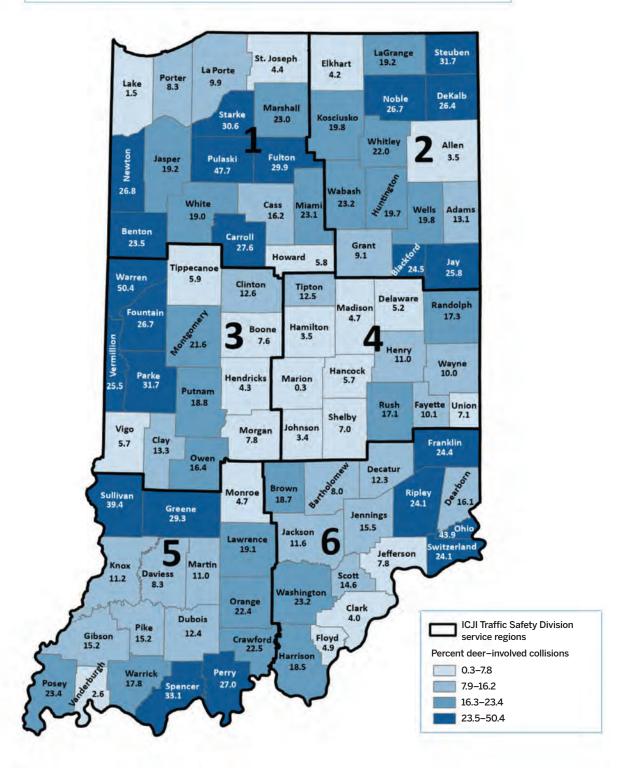


Table 2.5. Passenger vehicle occupants injured in Indiana collisions, by injury status, restraint use, and county, 2021

	Fatal				Incapacitating		Non-incapacitating		
	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained
All counties	597	360	60.3	14,538	2,802	19.3	23,208	3,073	13.2
Mean	6	4	57.9	158	31	23.9	252	33	17.8
Median	4	2	60.0	56	15	23	93	15	17
Minimum	0	0	0.0	1	1	0.0	4	0	0.0
Maximum	91	70	100.0	3,076	824	66.7	4,160	762	43.2
Adams	5	1	20.0	46	11	23.9	97	18	18.6
Allen	27	16	59.3	800	126	15.8	1,685	178	10.6
Bartholomew	10	7	70.0	215	42	19.5	370	31	8.4
Benton	1	0	0.0	11	5	45.5	4	0	0.0
Blackford	1	1	100.0	10	2	20.0	27	5	18.5
Boone	6	5	83.3	112	25	22.3	197	47	23.9
Brown	3	1	33.3	26	6	23.1	39	10	25.6
Carroll	2	0	0.0	28	5	17.9	53	8	15.1 9.7
Cass	2		0.0 66.7	91	10	11.0	113	11 74	
Clark	3 5	2	60.0	227 63	34 37	15.0 58.7	446 41	74 17	16.6 41.5
Clay Clinton	11	8	72.7	52	14	26.9	106	28	26.4
Crawford	1	0	0.0	12	4	33.3	28	7	25.0
Daviess	0	0	N/A	52	15	28.8	50	14	28.0
Dearborn	2	1	50.0	89	21	23.6	104	15	14.4
Decatur	2	2	100.0	69	18	26.1	105	6	5.7
DeKalb	5	2	40.0	74	4	5.4	78	11	14.1
Delaware	9	5	55.6	232	26	11.2	534	71	13.3
Dubois	4	2	50.0	65	13	20.0	111	15	13.5
Elkhart	17	9	52.9	606	55	9.1	579	40	6.9
Fayette	5	4	80.0	48	9	18.8	63	15	23.8
Floyd	5	2	40.0	189	32	16.9	246	25	10.2
Fountain	1	1	100.0	23	7	30.4	37	16	43.2
Franklin	3	1	33.3	37	14	37.8	44	6	13.6
Fulton	1	1	100.0	23	6	26.1	48	19	39.6
Gibson	2	1	50.0	85	21	24.7	125	23	18.4
Grant	11	6	54.5	97	26	26.8	186	42	22.6
Greene	3	3	100.0	76	18	23.7	92	14	15.2
Hamilton	13	5	38.5	508	54	10.6	859	36	4.2
Hancock	4	1	25.0	218	32	14.7	217	13	6.0
Harrison	1	0	0.0	83	22	26.5	135	31	23.0
Hendricks	10	6	60.0	301	75	24.9	484	100	20.7
Henry	7	5	71.4	128	23	18.0	85	9	10.6
Howard	6	5	83.3	202	52	25.7	250	77	30.8
Huntington	6	2	33.3	52	4	7.7	113	11	9.7
Jackson	6	5	83.3	51	10	19.6	159	57	35.8
Jasper	3	3	100.0	77	24	31.2	136	24	17.6
Jay	2	2	100.0	51	9	17.6	49	13	26.5
Jefferson	1	1	100.0	45	16	35.6	87	24	27.6
Jennings	5	3	60.0	23	7	30.4	57	11	19.3
Johnson	5	1	20.0	310	40	12.9	421	55	13.1
Knox	1	1	100.0	48	15	31.3	102	23	22.5
Kosciusko	15	9	60.0	26	9	34.6	441	39	8.8
LaGrange	2	1	50.0	80	16	20.0	49	9	18.4
Lake	55	31	56.4	1,284	199	15.5	2,036	171	8.4
La Porte	14	6	42.9	188	29	15.4	500	41	8.2
Lawrence	2	2	100.0	66	15	22.7	112	24	21.4
Madison	18	14	77.8	336	53	15.8	367	43	11.7

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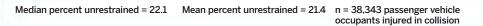
Table 2.5. Passenger vehicle occupants injured in Indiana collisions, by injury status, restraint use, and county, 2021 (continued)

	Fatal				Incapacitating		Non-incapacitating		
	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained
Marion	91	70	76.9	3,076	824	26.8	4,160	762	18.3
Marshall	5	1	20.0	108	33	30.6	99	16	16.2
Martin	1	1	100.0	8	1	12.5	11	2	18.2
Miami	4	2	50.0	49	15	30.6	94	22	23.4
Monroe	8	4	50.0	195	26	13.3	581	56	9.6
Montgomery	4	0	0.0	63	12	19.0	106	15	14.2
Morgan	4	1	25.0	150	30	20.0	224	52	23.2
Newton	3	3	100.0	44	15	34.1	31	2	6.5
Noble	7	6	85.7	75	21	28.0	137	24	17.5
Ohio	0	0	N/A	1		0.0	4	1	25.0
Orange	2	2	100.0	43	22	51.2	70	25	35.7
Owen	3	1	33.3	57	16	28.1	46	10	21.7
Parke	1	1	100.0	33	11	33.3	20	3	15.0
Perry	1	1	100.0	7	3	42.9	39	12	30.8
Pike	0	0	N/A	35	8	22.9	17	2	11.8
Porter	9	5	55.6	381	52	13.6	575	22	3.8
Posey	3	2	66.7	27	8	29.6	51	14	27.5
Pulaski	2	2	100.0	35	13	37.1	32	3	9.4
Putnam	5	2	40.0	74	25	33.8	76	14	18.4
Randolph	2	1	50.0	33	10	30.3	42	10	23.8
Ripley	2	0	0.0	31	12	38.7	77	17	22.1
Rush	2	2	100.0	33	4	12.1	29	7	24.1
St. Joseph	22	14	63.6	680	95	14.0	940	80	8.5
Scott	3	0	0.0	49	13	26.5	53	14	26.4
Shelby	6	3	50.0	85	10	11.8	156	23	14.7
Spencer	5	3	60.0	57	10	17.5	50	12	24.0
Starke	10	6	60.0	46	12	26.1	34	5	14.7
Steuben	2	0	0.0	54	8	14.8	84	13	15.5
Sullivan	8	4	50.0	13	4	30.8	42	14	33.3
Switzerland	1	1	100.0	4	2	50.0	21	9	42.9
Tippecanoe	9	6	66.7	110	19	17.3	919	81	8.8
Tipton Union	2	2	100.0	31 3	5 2	16.1	63	1	1.6
	0 5	3	N/A 60.0	588	37	66.7 6.3	4 835	0 34	0.0 4.1
Vanderburgh Vermillion	2	3 1	50.0	24	10	41.7	035 15	5	33.3
	7	5		284	30		344	32	
Vigo Wahash	6	1	71.4			10.6	_		9.3
Wabash Warren	0	0	16.7 N/A	55 16	15 5	27.3 31.3	51 13	8	15.7 23.1
Warrick	5	2	40.0	26	5 5	19.2	250	13	5.2
Washington	4	1	40.0 25.0	40	5	19.2	250 96	9	5.2 9.4
Wayne	5	4	25.0	139	14	10.1	232	9	3.9
Wells	5	3	60.0	22	14 5	22.7	232 74	9 15	20.3
White	7	3 7	100.0	50	5 19	38.0	65	15	20.3
Whitley	1	0	0.0	69	6	8.7	79	14	13.9
vviilley	1	U	0.0	09	U	0./	19	11	13.9

#### Notes:

- 1) Non-incapacitating injuries include those reported as non-incapacitating, possible, not reported, refused, and unknown injuries.
- 2) Includes only vehicle occupants (drivers and passengers). Pedestrians, pedalcyclists and animal-drawn vehicle operators are excluded.
- 3) Total counts include vehicle occupants identified as restrained, unrestrained, and unknown restraint usage.

Map 2.6. Percentage of unrestrained injured passenger vehicle occupants in Indiana collisions, by county and ICJI Traffic Safety Division service region, 2021



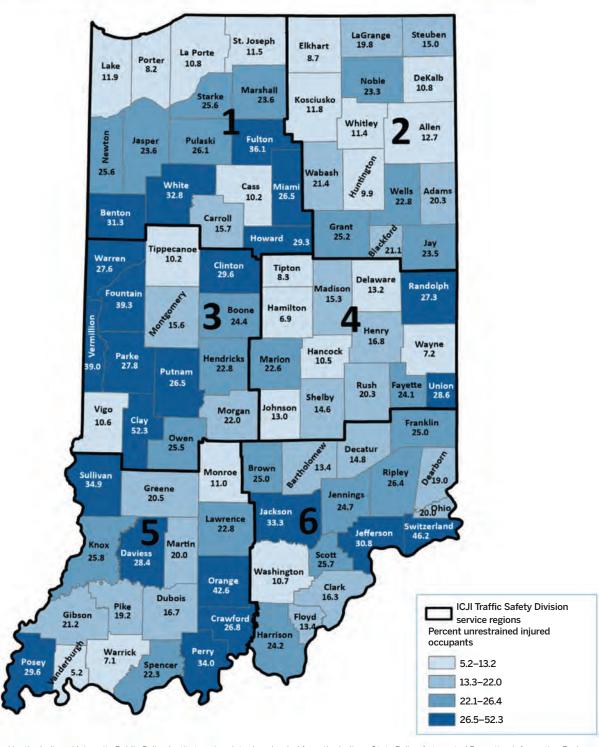


Table 2.6. Young drivers (ages 15–20) involved in Indiana collisions, by injury status and county, 2021

						Young driv	ers in collisions				
		-	Total		Fatal	Incap	pacitating	Non-in	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	330,327	41,375	12.5	57	0.1	1,380	3.3	2,780	6.7	37,158	89.8
Mean	3,591	450	13.3	1	0.2	15	4.0	30	7.3	404	88.5
Median	1,410	195	13.3	0	0.0	6	3.4	14	7.1	177	89.3
Minimum	116	14	9.1	0	0.0	0	0.0	0	0.0	13	64.5
Maximum	62,083	6,381	18.7	9	2.5	257	19.4	378	17.1	5,737	100.0
Adams	1,105	144	13.0	0	0.0	3	2.1	11	7.6	130	90.3
Allen	20,324	2,794	13.7	3	0.1	68	2.4	199	7.1	2,524	90.3
Bartholomew	2,895	431	14.9	1	0.2	21	4.9	49	11.4	360	83.5
Benton	116	16	13.8	0	0.0	0	0.0	0	0.0	16	100.0
Blackford	323	31	9.6	0	0.0	2	6.5	4	12.9	25	80.6
Boone	3,245	387	11.9	0	0.0	15	3.9	32	8.3	340	87.9
Brown	602	81	13.5	0	0.0	3	3.7	8	9.9	70	86.4
Carroll	647	88	13.6	0	0.0	4	4.5	8	9.1	76	86.4
Cass	1,745	228	13.1	0	0.0	5	2.2	15	6.6	208	91.2
Clark	6,586	699	10.6	0	0.0	18	2.6	47	6.7	634	90.7
Clay	954	136	14.3	0	0.0	11	8.1	6	4.4	119	87.5
Clinton	1,429	214	15.0	2	0.9	5	2.3	23	10.7	184	86.0
Crawford	424	43	10.1	0	0.0	0	0.0	3	7.0	40	93.0
Daviess	478	83	17.4	0	0.0	5	6.0	11	13.3	67	80.7
Dearborn	2,232	310	13.9	0	0.0	9	2.9	20	6.5	281	90.6
Decatur	1,154	174	15.1	1	0.6	14	8.0	17	9.8	142	81.6
DeKalb	1,854	263	14.2	1	0.4	9	3.4	13	4.9	240	91.3
Delaware	5,868	904	15.4	1	0.1	26	2.9	70	7.7	807	89.3
Dubois	1,965	327	16.6	1	0.3	10	3.1	22	6.7	294	89.9
Elkhart	12,183	1,569	12.9	1	0.1	48	3.1	58	3.7	1,462	93.2
Fayette	839	112	13.3	1	0.9	2	1.8	6	5.4	103	92.0
Floyd	4,135	517	12.5	0	0.0	12	2.3	28	5.4	477	92.3
Fountain	476	60	12.6	0	0.0	5	8.3	5	8.3	50	83.3
Franklin	853	138	16.2	0	0.0	5	3.6	11	8.0	122	88.4
Fulton	901	82	9.1	0	0.0	2	2.4	8	9.8	72	87.8
Gibson	1,472	214	14.5	0	0.0	6	2.8	23	10.7	185	86.4
Grant	3,260	394	12.1	1	0.3	11	2.8	24	6.1	358	90.9
Greene	1,071	144	13.4	0	0.0	7	4.9	11	7.6	126	87.5
Hamilton	12,859	1,978	15.4	2	0.1	57	2.9	130	6.6	1,789	90.4
Hancock	3,326	441	13.3	1	0.2	16	3.6	30	6.8	394	89.3
Harrison	1,790	248	13.9	0	0.0	16	6.5	18	7.3	214	86.3
Hendricks	8,514	1,216	14.3	1	0.1	27	2.2	68	5.6	1,120	92.1
Henry	1,633	193	11.8	0	0.0	9	4.7	8	4.1	176	91.2
Howard	3,728	495	13.3	0	0.0	17	3.4	35	7.1	443	89.5
Huntington	1,605	210	13.1	0	0.0	6	2.9	11	5.2	193	91.9
Jackson	2,890	357	12.4	0	0.0	1	0.3	22	6.2	334	93.6
Jasper	1,716	207	12.1	0	0.0	4	1.9	20	9.7	183	88.4
Jay	754	111	14.7	1	0.9	5	4.5	8	7.2	97	87.4
Jefferson	1,368	142	10.4	0	0.0	3	2.1	10	7.0	129	90.8
Jennings	904	111	12.3	0	0.0	4	3.6	3	2.7	104	93.7
Johnson	6,736	979	14.5	0	0.0	29	3.0	50	5.1	900	91.9
Knox	1,727	238	13.8	0	0.0	5	2.1	17	7.1	216	90.8
Kosciusko	3,609	501	13.9	1	0.2	4	0.8	41	8.2	455	90.8
LaGrange	1,544	201	13.0	0	0.0	7	3.5	8	4.0	186	92.5
Lake	31,351	3,092	9.9	4	0.1	109	3.5	198	6.4	2,781	89.9
La Porte	5,680	578	10.2	2	0.1	19	3.3	55	9.5	502	86.9
Lawrence	2,196	269	12.2	0	0.0	7	2.6	15	5.6	247	91.8
		685			0.0		5.8			602	87.9
Madison	5,753	COO	11.9	2	0.3	40	5.8	41	6.0	0U2	0/.9

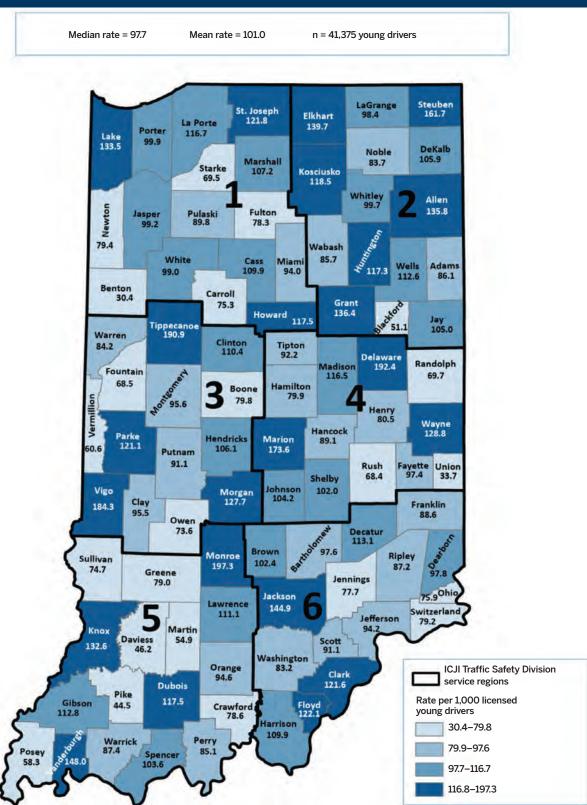
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Table 2.6. Young drivers (ages 15–20) involved in Indiana collisions, by injury status and county, 2021 (continued)

		-	Total	I	Fatal	Incap	acitating	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
Marion	62,083	6,381	10.3	9	0.1	257	4.0	378	5.9	5,737	89.9
Marshall	2,174	292	13.4	1	0.3	8	2.7	15	5.1	268	91.8
Martin	214	31	14.5	0	0.0	4	12.9	0	0.0	27	87.1
Miami	1,481	165	11.1	0	0.0	2	1.2	14	8.5	149	90.3
Monroe	5,564	1,019	18.3	1	0.1	24	2.4	82	8.0	912	89.5
Montgomery	1,321	192	14.5	1	0.5	15	7.8	16	8.3	160	83.3
Morgan	3,431	534	15.6	1	0.2	17	3.2	34	6.4	482	90.3
Newton	489	55	11.2	0	0.0	5	9.1	3	5.5	47	85.5
Noble	1,650	221	13.4	1	0.5	9	4.1	21	9.5	190	86.0
Ohio	193	22	11.4	0	0.0	1	4.5	0	0.0	21	95.5
Orange	747	97	13.0	0	0.0	4	4.1	7	7.2	86	88.7
Owen	748	83	11.1	0	0.0	2	2.4	5	6.0	76	91.6
Parke	610	86	14.1	0	0.0	6	7.0	2	2.3	78	90.7
Perry	590	87	14.7	0	0.0	3	3.4	8	9.2	76	87.4
Pike	211	31	14.7	0	0.0	6	19.4	5	16.1	20	64.5
Porter	7,844	971	12.4	0	0.0	43	4.4	61	6.3	867	89.3
Posey	745	86	11.5	0	0.0	3	3.5	9	10.5	74	86.0
Pulaski	534	60	11.2	0	0.0	3	5.0	3	5.0	54	90.0
Putnam	1,390	170	12.2	0	0.0	10	5.9	9	5.3	151	88.8
Randolph	675	87	12.9	1	1.1	3	3.4	6	6.9	77	88.5
Ripley	981	159	16.2	0	0.0	2	1.3	18	11.3	139	87.4
Rush	429	62	14.5	0	0.0	5	8.1	5	8.1	52	83.9
St. Joseph	12,840	1,469	11.4	4	0.3	47	3.2	89	6.1	1,329	90.5
Scott	961	108	11.2	0	0.0	2	1.9	5	4.6	101	93.5
Shelby	2,079	248	11.9	0	0.0	9	3.6	26	10.5	213	85.9
Spencer	852	122	14.3	0	0.0	3	2.5	11	9.0	108	88.5
Starke	789	84	10.6	0	0.0	6	7.1	6	7.1	72	85.7
Steuben	2,239	274	12.2	1	0.4	10	3.6	19	6.9	244	89.1
Sullivan	547	80	14.6	2	2.5	6	7.5	5	6.3	67	83.8
Switzerland	204	35	17.2	0	0.0	0	0.0	6	17.1	29	82.9
Tippecanoe	9,969	1,520	15.2	1	0.1	17	1.1	112	7.4	1,390	91.4
Tipton	656	78	11.9	0	0.0	2	2.6	11	14.1	65	83.3
Union	119	14	11.8	0	0.0	0	0.0	1	7.1	13	92.9
Vanderburgh	8,699	1,180	13.6	0	0.0	46	3.9	102	8.6	1,032	87.5
Vermillion	394	52	13.2	1	1.9	5	9.6	1	1.9	45	86.5
Vigo	5,489	813	14.8	2	0.2	31	3.8	41	5.0	739	90.9
Wabash	1,144	143	12.5	1	0.7	4	2.8	7	4.9	131	91.6
Warren	298	41	13.8	0	0.0	3	7.3	4	9.8	34	82.9
Warrick	2,309	360	15.6	0	0.0	2	0.6	31	8.6	327	90.8
Washington	901	126	14.0	1	0.8	8	6.3	14	11.1	103	81.7
Wayne	3,340	366	11.0	0	0.0	17	4.6	31	8.5	318	86.9
Wells	1,049	196	18.7	2	1.0	5	2.6	11	5.6	178	90.8
White	1,170	138	11.8	0	0.0	5	3.6	19	13.8	114	82.6
Whitley	1,356	202	14.9	0	0.0	9	4.5	7	3.5	186	92.1
Unknown	0	0	N/A	0	N/A	0	N/A	1	N/A	2	N/A

Note: Young drivers are defined as drivers in collisions between the ages of 15 and 20 years old.

Map 2.7. Young drivers (ages 15–20) involved in collisions per 1,000 licensed young drivers, by county and ICJI Traffic Safety Division service region, 2021



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 April 8, 2022; Indiana Bureau of Motor Vehicles, Licensed drivers (data), downloaded May 25, 2022.

	<b>T</b> 1 1 2 2 2	a a								
	Total indivi	duals involved	F	atal As % county	Incap	As % county	Non-inc	apacitating As % county	No	injury As % county
	Count	County rank	Count	total	Count	total	Count	total	Count	total
All counties	2,952	N/A	129	4.4	1,242	42.1	692	23.4	889	30.1
Mean	32	N/A	1	5.1	14	40.9	8	22.2	10	30.7
Median	17	N/A	1	3.2	7	41.7	4	21.4	5	28.6
Minimum	1	N/A	0	0.0	0	0.0	0	0.0	0	0.0
Maximum	406	N/A	21	33.3	168	100.0	77	69.7	140	66.7
Adams	17	69	0	0.0	5	29.4	9	52.9	3	17.6
Allen	173	2	5	2.9	75	43.4	46	26.6	47	27.2
Bartholomew	44	27	1	2.3	24	54.5	11	25.0	8	18.2
Benton	1	88	0	0.0	1	100.0	0	0.0	0	0.0
Blackford	9	91	1	11.1	5	55.6	2	22.2	1	11.1
Boone	18	24	0	0.0	8	44.4	5	27.8	5	27.8
Brown	25	28	0	0.0	11	44.0	6	24.0	8	32.0
Carroll	8	82	1	12.5	4	50.0	2	25.0	1	12.5
Cass	14	53	1	7.1	8	57.1	2	14.3	3	21.4
Clark	42	15	1	2.4	14	33.3	9	21.4	18	42.9
Clay	17	48	2	11.8	7	41.2	0	0.0	8	47.1
Clinton	14	30	1	7.1	4	28.6	3	21.4	6	42.9
Crawford	6	66	1	16.7	2	33.3	1	16.7	2	33.3
Daviess	5	72	0	0.0	2	40.0	0	0.0	3	60.0
Dearborn	16	24	0	0.0	7	43.8	5	31.3	4	25.0
Decatur	15	57	1	6.7	9	60.0	3	20.0	2	13.3
DeKalb	22	47	1	4.5	12	54.5	4	18.2	5	22.7
Delaware	58	20	8	13.8	21	36.2	15	25.9	14	24.1
Dubois	23	36	0	0.0	11	47.8	5	21.7	7	30.4
Elkhart	111	6	6	5.4	42	37.8	15	13.5	48	43.2
Fayette	14	48	1	7.1	4	28.6	2	14.3	7	50.0
Floyd	47	26	1	2.1	22	46.8	7	14.9	17	36.2
Fountain	3	91	0	0.0	1	33.3	0	0.0	2	66.7
Franklin	12	39	0	0.0	5	41.7	4	33.3	3	25.0
Fulton	14	66	0	0.0	5	35.7	5	35.7	4	28.6
Gibson	18	45	1	5.6	4	22.2	10	55.6	3	16.7
Grant	51	18	1	2.0	20	39.2	14	27.5	16	31.4
Greene	12	66	0	0.0	6	50.0	2	16.7	4	33.3
Hamilton	72	9	3	4.2	33	45.8	13	18.1	23	31.9
Hancock	28	23	3	10.7	10	35.7	5	17.9	10	35.7
Harrison	28	43	1	3.6	14	50.0	6	21.4	7	25.0
Hendricks	45	14	2	4.4	20	44.4	8	17.8	15	33.3
Henry	28	53	2	7.1	12	42.9	2	7.1	12	42.9
Howard	49	12	5	10.2	16	32.7	14	28.6	14	28.6
Huntington	24	41	2	8.3	9	37.5	5	20.8	8	33.3
Jackson	30	32	0	0.0	11	36.7	7	23.3	12	40.0
Jasper	16	72	1	6.3	8	50.0	5	31.3	2	12.5
Jay	10	64	0	0.0	4	40.0	1	10.0	5	50.0
Jefferson	19	48	0	0.0	8	42.1	4	21.1	7	36.8
Jennings	21	57	1	4.8	8	38.1	5	23.8	7	33.3
Johnson	60	12	0	0.0	31	51.7	14	23.3	15	25.0
Knox	19	45	0	0.0	6	31.6	3	15.8	10	52.6
Kosciusko	33	20	0	0.0	6	18.2	23	69.7	4	12.1
_aGrange	12	60	0	0.0	2	16.7	2	16.7	8	66.7
_ake	165	3	3	1.8	74	44.8	41	24.8	47	28.5
La Porte	56	18	2	3.6	27	48.2	14	25.0	13	23.2
Lawrence	23	36	1	4.3	7	30.4	8	34.8	7	30.4
Madison	60	7	3	5.0	37	61.7	9	15.0	11	18.3

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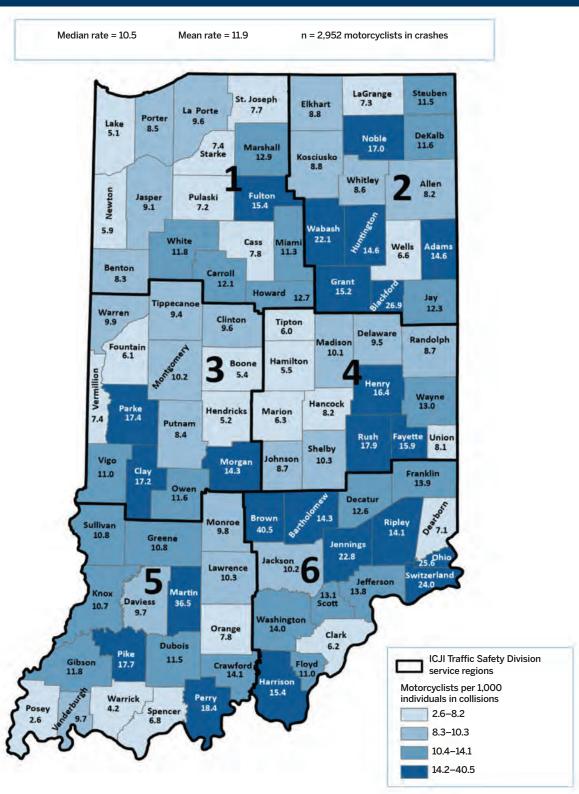
 Table 2.7. Motorcyclists involved in Indiana collisions, by injury status and county, 2021 (continued)

	Total indivi	iduals involved		Fatal	Incap	acitating	Non-inc	capacitating	No	injury
	Count	County rank	Count	As % county total	Count	As % county total	Count	As % county total	Count	As % county total
Marion	406	1	21	5.2	168	41.4	77	19.0	140	34.5
Marshall	29	29	1	3.4	15	51.7	3	10.3	10	34.5
Martin	8	86	0	0.0	5	62.5	0	0.0	3	37.5
Miami	17	60	0	0.0	7	41.2	6	35.3	4	23.5
Monroe	57	11	3	5.3	25	43.9	15	26.3	14	24.6
Montgomery	14	38	0	0.0	7	50.0	5	35.7	2	14.3
Morgan	50	22	4	8.0	17	34.0	15	30.0	14	28.0
Newton	3	60	1	33.3	0	0.0	1	33.3	1	33.3
Noble	29	30	2	6.9	15	51.7	5	17.2	7	24.1
Ohio	5	86	0	0.0	4	80.0	0	0.0	1	20.0
Orange	6	69	1	16.7	1	16.7	1	16.7	3	50.0
Owen	9	64	1	11.1	4	44.4	1	11.1	3	33.3
Parke	11	60	1	9.1	5	45.5	1	9.1	4	36.4
Perry	11	57	0	0.0	5	45.5	3	27.3	3	27.3
Pike	4	82	0	0.0	2	0.0	2	0.0	0	0.0
Porter	69	10	3	4.3	38	55.1	12	17.4	16	23.2
Posey	2	78	0	0.0	1	50.0	0	0.0	1	50.0
Pulaski	4	72	0	0.0	1	25.0	1	25.0	2	50.0
Putnam	12	48	0	0.0	6	50.0	3	25.0	3	25.0
Randolph	6	53	2	33.3	3	50.0	1	16.7	0	0.0
Ripley	14	48	1	7.1	4	28.6	2	14.3	7	50.0
Rush	8	82	1	12.5	6	75.0	0	0.0	1	12.5
St. Joseph	103	4	5	4.9	45	43.7	18	17.5	35	34.0
Scott	13	41	2	15.4	5	38.5	3	23.1	3	23.1
Shelby	22	34	1	4.5	9	40.9	4	18.2	8	36.4
Spencer	6	78	0	0.0	3	50.0	2	33.3	1	16.7
Starke	6	72	0	0.0	2	33.3	2	33.3	2	33.3
Steuben	26	39	1	3.8	4	15.4	9	34.6	12	46.2
Sullivan	6	78	0	0.0	1	16.7	1	16.7	4	66.7
Switzerland	5	72	0	0.0	1	20.0	3	60.0	1	20.0
Tippecanoe	96	7	3	3.1	20	20.8	51	53.1	22	22.9
Tipton	4	82	0	0.0	1	25.0	2	50.0	1	25.0
Union	1	88	0	N/A	0	N/A	1	N/A	0	N/A
Vanderburgh	88	5	3	3.4	44	50.0	22	25.0	19	21.6
Vermillion	3	72	0	0.0	1	33.3	0	0.0	2	66.7
Vigo	62	16	2	3.2	33	53.2	8	12.9	19	30.6
Wabash	26	32	0	0.0	13	50.0	1	3.8	12	46.2
Warren	3	88	1	33.3	1	33.3	0	0.0	1	33.3
Warrick	10	53	0	0.0	3	30.0	4	40.0	3	30.0
Washington	13	34	1	7.7	4	30.8	5	38.5	3	23.1
Wayne	45	17	1	2.2	17	37.8	17	37.8	10	22.2
Wells	7	69	0	0.0	3	42.9	2	28.6	2	28.6
White	14	78	4	28.6	6	42.9	2	14.3	2	14.3
Whitley	12	43	0	0.0	5	41.7	5	41.7	2	16.7
Unknown	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A

<sup>1)</sup> Non-incapacitating injuries include those reported as non-incapacitating, possible, not reported, refused, and unknown injuries.

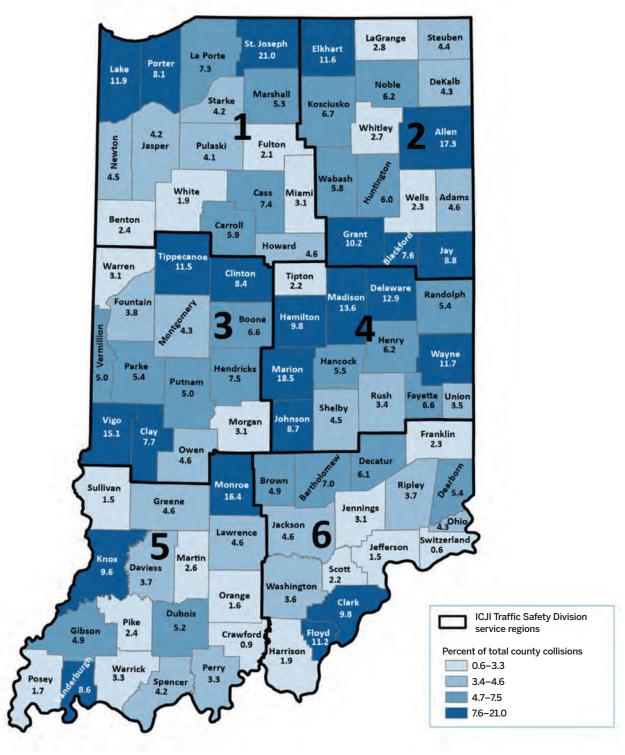
2) Motorcyclists include operators and passengers on motorcycles, Class A and Class B motor-driven cycles, and motorized bicycles.

Map 2.8. Motorcyclists in Indiana collisions per 1,000 individuals involved in collisions, by county and ICJI Traffic Safety Division service region, 2021



Map 2.9. Percentage of county collisions that involved a hit-and-run driver, by ICJI Traffic Safety Division service region, 2021





Map 2.10. Work zone collisions per 1,000 total county collisions, by ICJI Traffic Safety Division service region, 2021

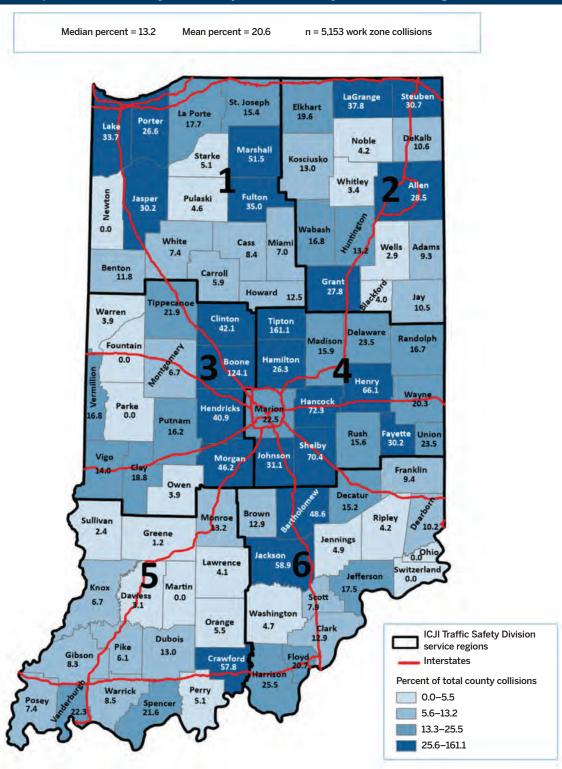


Table 2.8. County ranks by collision metric, 2021

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

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Table 2.8. County ranks by collision metric, 2021 (continued)

High

Fatalities per 100K collisions as % population total collision	of collisions as % of	Motorcycle collisions as % of total collisions	Unrestrained passenger vehicle injuries as % total injuries	Young drivers as % of total drivers in collisions	Average score of six metrics
Marion 38 60	88	82	45	5	53
Marshall 31 57	22	30	39	33	35
Martin <b>65 91</b>	6	2	54	87	51
Miami 46 56	56	41	22	53	46
Monroe <b>78 84</b>	62	53	77	1	59
Montgomery 64 25	66	49	63	49	53
Morgan <b>39 62</b>	63	21	47	15	41
Newton 9 88	9	86	28	71	49
Noble <b>15 59</b>	36	13	41	66	38
Ohio 33 3	92	4	54	77	44
Orange <b>40 46</b>	54	73	3	51	45
Owen 24 34	61	37	30	80	44
Parke <b>25 66</b>	38	11	18	19	30
Perry <b>85</b> 63	23	8	8	64	42
Pike <b>75 92</b>	2	10	57	90	54
Porter <b>76 77</b>	12	66	88	41	60
Posey <b>54 13</b>	14	92	13	86	45
Pulaski <b>37 9</b>	91	78	25	57	50
Putnam 36 82	25	67	23	56	48
Randolph 16 12	53	64	20	81	41
Ripley 48 21	51	23	24	61	38
Rush <b>26 37</b>	11	9	52	84	37
Scott 8 29	76	28	27	55	37
Shelby 29 76	17	47	67	40	46
Spencer 6 67	3	80	46	38	40
St. Joseph <b>60 53</b>	68	74	75	17	58
Starke 2 55	35	76	29	82	47
Steuben <b>57 51</b>	42	40	65	6	44
Sullivan 4 18	64	44	7	79	36
Switzerland 66 48	4	5	2	72	33
Tippecanoe 74 89	30	59	83	3	56
Tipton 52 72	26	85	87	54	63
Union 44 2	83	71	16	91	51
Vanderburgh 81 1	75	54	92	7	52
Vermillion 50 43	37	75	5	85	49
Vigo <b>61 44</b>	46	43	81	4	47
Wabash 18 41	13	7	48	63	32
Warren <b>56 22</b>	82	52	19	65	49
Warrick 63 8	59	91	90	60	62
Washington 28 49	10	25	80	67	43
Wayne <b>72 75</b>	16	29	89	14	49
Wells 30 27	86	81	43	28	49
White 1 86	40	36	10	44	36
Whitley 91 47	31	65	76	42	59

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 April 8, 2022; Indiana Bureau of Motor Vehicles, as of May 25, 2022; U.S. Census Bureau, extracted from STATS Indiana, Indiana Business Research Center, May 19, 2022.

- Notes:
  1) A collision is identified as speed-related if any one of the following conditions is met: (a) unsafe speed or speed too fast for weather conditions is listed as the primary or contributing factor of the collision; (b) a vehicle driver is issued a speeding citation.
- 2) A collision is considered alcohol-impaired when any vehicle driver involved has a BAC test
  3) Motorcyclists include operators and passengers on motorcycles, Class A and Class B motor-driven cycles, 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

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# **COLLISIONS, 2021**

In 2021, 208,680 traffic crashes occurred in Indiana. Collisions were up 19% from 2020 (Table 3.1). Nonfatal collisions increased 10%, from 26,325 in 2020 to 28,985 in 2021. Fatal collisions increased 2%, from 812 to 829.

Over the five-year study period, all collisions and nonfatal collisions declined consistently each year for the first four years, reaching five-year lows in 2020. All collisions decreased 1% annually over the period, and nonfatal collisions decreased 4%. The five-year low for fatal collisions was in 2019 (Figure 3.1). Fatal collisions declined from 2017 to 2019 and increased in 2020 and 2021. The rate of fatal collisions per 1,000 collisions reached a five-year high of 4.6 per 1,000 in 2020. The five-year low was in 2019 (3.4 per 1,000).

# Non-motorists

The number of crashes involving pedestrians increased in 2021 from the 5-year low in 2020 (Figure 3.2). The rate of pedestrian collisions per 1,000 collisions was 7.5 per 1,000 in 2021. This is similar to the rates in 2017, 2018, and 2020, but higher than the lowest rate in 2019 (7.2 per 1,000). The number of pedalcyclist collisions have declined since 2018, to a 5-year low of 519. The rate of pedalcyclist collisions also reached a 5-year low in 2021 (2.5 per 1,000). The highest rate was in 2020 (3.9 per 1,000) This was similar to the rates in 2017 (3.7 per 1,000) and 2018 (3.8 per 1,000) but higher than the rate in 2021 and 2019 (3.4 per 1,000).

# Month, day, and time

The most collisions per month in 2021 occurred in the late fall and winter—October, November, and December (Table 3.2). However, the most fatal collisions per month occurred in summer and fall—August and September followed by June and July. There were substantial differences between 2020 and 2021 for particular months. Substantially fewer fatal collisions occurred in October and June in 2021 than in 2020. Also, substantially more fatal collisions occurred in April and August in 2021 than in 2020.

In 2021, collisions 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 of collisions occurring during this time period on Wednesdays and Fridays (Table 3.3). The highest proportion of fatal collisions occurred on Saturdays from 3-5:59 a.m. and Mondays from midnight -5:59 a.m.

Monthly counts of daytime collisions were consistently higher than nighttime collisions for each month in 2021. There were 11,339 daytime crashes on average each month compared to 5,529 nighttime crashes (Figure 3.3). The monthly average for fatal crashes was higher during the day (35) than during the night (31) (Figure 3.4). However, the pattern across months was not as consistent as for crashes generally. The highest number of fatal collisions during daytime hours were in August and September. The highest number of fatal collisions during nighttime hours occurred in June, July, and August. Daytime fatal collisions were higher than nighttime collisions in all months except January, April, June, and July. The difference in January and June was just one collision, and the daytime and nighttime collisions were the same in July. The lowest number of fatal crashes during the day and at night occurred in February.

Similar to 2019 and 2020, the most prevalent collision type in 2021 was hit-and-runs, making up 11% of all crashes (Table 3.4). Speed-related crashes were next most prevalent, making up 8% of all crashes, followed by distracted driving, any type (5%) and aggressive driving (3%). Speed-related collisions had the largest differences by season. These

collisions made up 20% and 17% of crashes in February and January, respectively. However, for each of the remaining months, these collisions only made up about 6%–8% of all collisions. In 2021, speed–related collisions made up 28% of fatal crashes while alcohol–impaired crashes made up 11% of fatal collisions (not shown in table).

With regard to time of day, the highest proportion of alcohol-impaired collisions occurred midnight to 5:59 a.m. across all days of the week, particularly on Saturdays and Sundays (Table 3.5). For hit-and-run collisions, the highest proportion of collisions for Saturdays, Sundays, and Mondays was during this same time of day. For the remaining days, the proportion of collisions that occurred from 6-11:59 p.m. period was equal to or greater than the proportion for the early morning hours. Distracted collisions of any kind were highest during the afternoon period from noon-5.59 p.m. across all days of the week.

# **Primary factor**

In 2021, driver-related factors were identified as the primary factor in 85% of all collisions and 93% of fatal collisions (calculated from Table 3.6). Unsafe driver actions accounted for 65% of all collisions. Within this category, failure to yield the right of way and following too closely were listed most often as the primary factor in the collision.

The following driver factors had fatal collision rates per 1,000 collisions that were greater than the average rate for all collisions (4 per 1,000):

- Influenced by pedestrian action: 109
- Wrong way on a one-way road: 36
- · Left of center: 28
- · Unsafe speed: 19
- Driver illness: 16
- · Ran off road: 9
- Overcorrection or oversteering: 7
- Disregarding signal or sign: 7

The overall rate of fatal injury collisions per 1,000 collisions was higher among primary factors attributed to driver actions (4 per 1,000) than those attributed primarily to vehicle factors (2 per 1,000) or environmental factors (1 per 1,000).

Although unsafe driver actions were identified as the primary factor in more than half of fatal collisions, they were more likely to be the primary factor in nonfatal collisions (68%). Similarly, vehicle (2% nonfatal and 1% fatal) and environmental (4% nonfatal and 2% fatal) factors were slightly more likely to be identified as the primary factor in nonfatal collisions. In contrast, driver loss of control (17% fatal and 8% nonfatal) and miscellaneous driver factors (19% fatal and 7% nonfatal) were more likely to be identified as the primary factor in fatal collisions (Figure 3.5).

# Census locale and road class

In 2021, a greater percentage of fatal collisions occurred in urban areas than nonurban areas. Collisions in urban areas accounted for 73% of all collisions and 51% of fatal collisions. Collisions in suburban, exurban, and rural areas accounted for 27% of all collisions, but 49% of fatal collisions (Figure 3.6). In rural areas, 7 out of 1,000 collisions involved a fatality, a rate that was two and a half times higher than in urban areas (3 per 1,000). While more than half of collisions occurred on local/city roads, the rate of fatal collisions per 1,000 collisions was lowest there (3 per 1,000) (Figure 3.7). Rates of fatal

injury collisions were highest on state roads (7 per 1,000) and county roads (7 per 1,000).

# Road parameters and manner of collisions

In 2021, most collisions (66%) and fatal collisions (68%) did not occur at an intersection (calculated from Table 3.7). Collisions at a railroad crossing, however, had the highest fatal collision rate per 1,000 collisions among all road parameters (22 per 1,000). Collisions on curved roads (6 per 1,000) had a higher fatal collision rate than collisions on straight roads (3 per 1,000). Gravel roads has a higher fatal collision rate (5 per 1,000) than asphalt (4 per 1,000) or concrete roads (3 per 1,000).

Rear-end crashes again accounted for the largest proportion (23%) of all crashes in 2021 (Table 3.8). Manners of collision that resulted in a higher than average fatal collision rate per 1,000 crashes (4 per 1,000), included:

Head-on collisions: 26

Non-collisions: 13

Collisions with objects in the road: 12

· Running off the road: 9

• Right angle collisions: 5

# Traffic control type and environmental conditions

More than one-third (37%) of all collisions involved the presence of some type of traffic control measure, such as a stop sign or no passing zone (Table 3.9). The following traffic controls had fatal collision rates what were higher than the average rate of 4 fatal collisions per 1,000 collisions:

· Railroad crossing: 21

• Flashing overhead beacon: 13

• No passing zone: 10

Sixty-six percent of collisions in 2021 occurred during daylight hours, while crashes on roads that were dark and unlit had the highest rate of fatal collisions per 1,000 collisions (8 per 1,000) (Table 3.10). While most collisions occurred during clear weather and on dry pavement, collisions in fog/smoke/smog conditions (8 per 1,000), on roads with loose materials (5 per 1,000), and with a severe cross wind (5 per 1,000) had the highest rates of fatal collisions per 1,000 collisions.

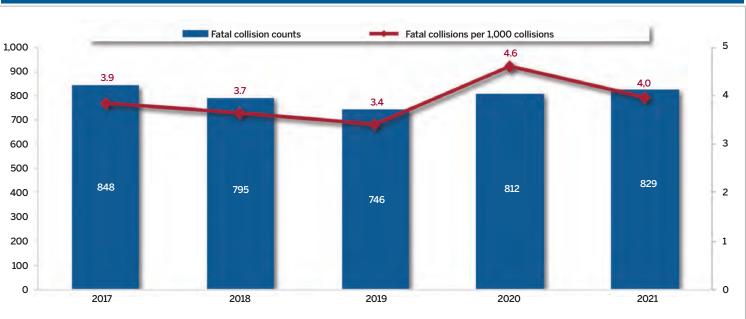
# Work zone collisions

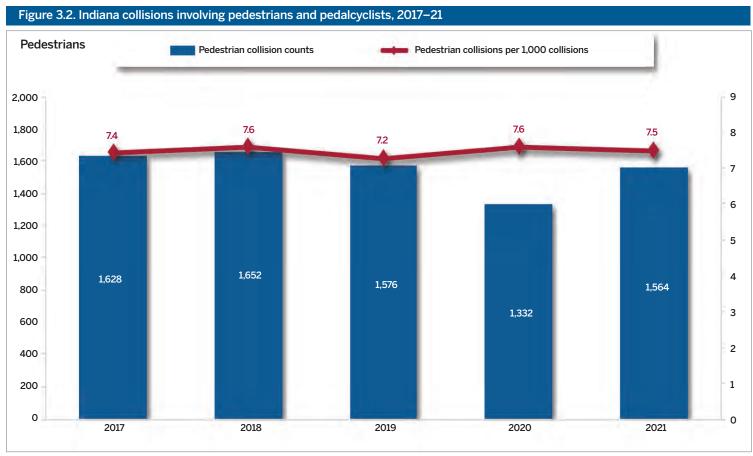
The number of work zone collisions increased from 3,879 in 2020 to 5,153 in 2021. The fatal collision rate per 1,000 work zones collisions (4.1 per 1,000) was slightly higher in 2021 than the rate of fatal collisions for non-work zone collisions (4.0 per 1,000).

						Annual rate	e of change
	2017	2018	2019	2020	2021	2020-21	2017-21
All collisions	219,320	217,287	217,603	175,936	208,680	18.6%	-1.2%
Fatal	848	795	746	812	829	2.1%	-0.6%
Nonfatal	34,227	32,412	31,214	26,325	28,985	10.1%	-4.1%
Property damage only	184,245	184,080	185,643	148,799	178,866	20.2%	-0.7%

Source: 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 April 8, 2022.

Figure 3.1. Indiana fatal traffic collisions, 2017–21





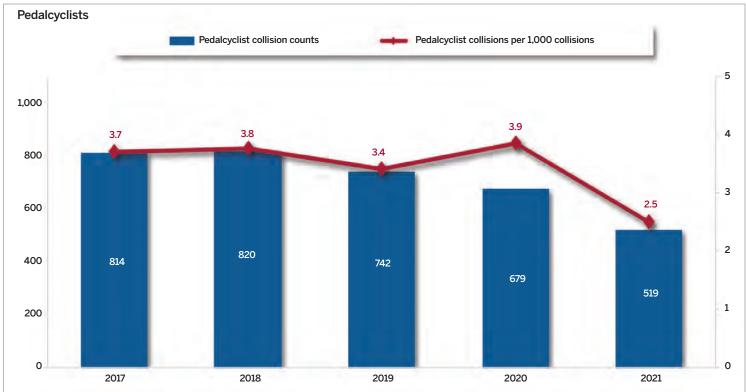


Table 3.2. Indiana traffic collisions by month, 2020–21

		Total collisions			Fatal collisions		% Chang	e (2020-21)
Month	2020	2021	Change	2020	2021	Change	Fatal	Total
Jan	15,787	15,687	-100	51	63	12	-0.6%	23.5%
Feb	16,852	15,927	-925	36	42	6	-5.5%	16.7%
Mar	11,816	14,556	2,740	52	50	-2	23.2%	-3.8%
Apr	8,012	16,035	8,023	38	59	21	100.1%	55.3%
May	12,251	17,417	5,166	73	76	3	42.2%	4.1%
Jun	14,579	17,716	3,137	98	79	-19	21.5%	-19.4%
Jul	15,451	17,532	2,081	81	78	-3	13.5%	-3.7%
Aug	15,428	17,809	2,381	73	93	20	15.4%	27.4%
Sep	15,208	17,700	2,492	82	80	-2	16.4%	-2.4%
Oct	17,695	20,469	2,774	97	73	-24	15.7%	-24.7%
Nov	16,898	19,703	2,805	63	71	8	16.6%	12.7%
Dec	15,959	18,129	2,170	68	65	-3	13.6%	-4.4%
al	175,936	208,680	32,744	812	829	17	18.6%	2.1%
		Low	<	<	>	>	High	

Table 3.3. Indiana traffic collisions, by day of the week and time of day, 2021

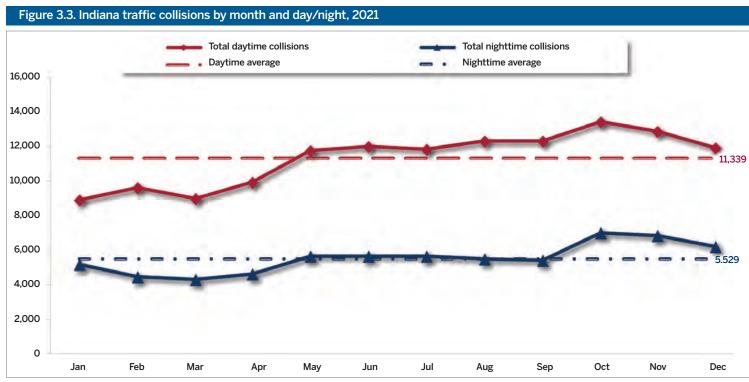
	Time of day												
Day of the week	Midnight-2:59 a.m.	3-5:59 a.m.	6-8:59 a.m.	9–11:59 a.m.	Noon-2:59 p.m.	3-5:59 p.m.	6-8:59 p.m.	9–11:59 p.m.	All hours				
Total collisions	9,695	11,053	24,240	26,044	37,633	48,154	29,122	16,476	202,417				
Sunday	2,216	1,584	1,364	2,661	4,149	4,127	3,578	2,174	21,853				
Monday	1,076	1,645	4,060	3,871	5,250	7,280	3,903	1,863	28,948				
Tuesday	1,006	1,508	4,208	3,717	5,569	7,726	3,869	2,021	29,624				
Wednesday	1,109	1,568	4,354	3,842	5,502	8,063	4,167	1,998	30,603				
Thursday	1,091	1,550	4,254	3,844	5,567	7,699	4,225	2,138	30,368				
Friday	1,302	1,611	4,149	4,407	6,478	8,368	5,075	3,058	34,448				
Saturday	1,895	1,587	1,851	3,702	5,118	4,891	4,305	3,224	26,573				
Fatal collisions	96	116	113	134	79	98	93	69	798				
Sunday	23	15	16	14	12	14	15	11	120				
Monday	16	18	15	16	8	9	9	4	95				
Tuesday	8	19	20	24	13	14	11	13	122				
Wednesday	13	10	10	15	10	8	12	4	82				
Thursday	9	10	15	15	11	13	13	13	99				
Friday	12	18	21	20	11	21	20	14	137				
Saturday	15	26	16	30	14	19	13	10	143				
% fatal	1.0%	1.0%	0.5%	0.5%	0.2%	0.2%	0.3%	0.4%	0.4%				
Sunday	1.0%	0.9%	1.2%	0.5%	0.3%	0.3%	0.4%	0.5%	0.5%				
Monday	1.5%	1.1%	0.4%	0.4%	0.2%	0.1%	0.2%	0.2%	0.3%				
Tuesday	0.8%	1.3%	0.5%	0.6%	0.2%	0.2%	0.3%	0.6%	0.4%				
Wednesday	1.2%	0.6%	0.2%	0.4%	0.2%	0.1%	0.3%	0.2%	0.3%				
Thursday	0.8%	0.6%	0.4%	0.4%	0.2%	0.2%	0.3%	0.6%	0.3%				
Friday	0.9%	1.1%	0.5%	0.5%	0.2%	0.3%	0.4%	0.5%	0.4%				
Saturday	0.8%	1.6%	0.9%	0.8%	0.3%	0.4%	0.3%	0.3%	0.5%				

Source: 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 April 8, 2022.

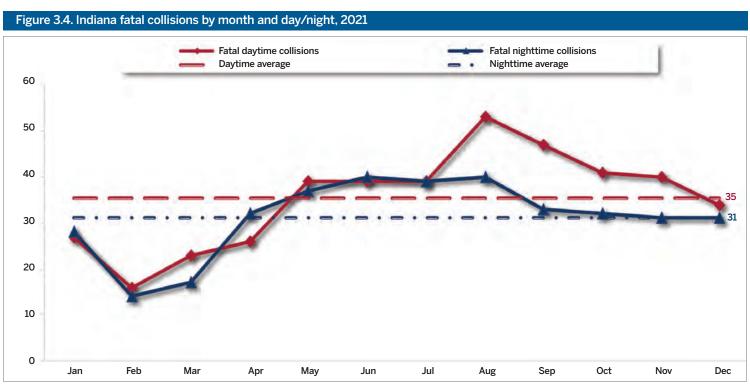
Note: Data limited to collisions where day and time were reported.

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 downloaded from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 8, 2022.

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

Table	3.4. Collis	sions by month and collision circumstances, 2021													
		Alcohol-	impaired	Aggressiv	e driving	Speed-	-related	Disrega	rd signal	Hit-ar	nd-run	Distracted	l, any type	Distract pho	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	15,687	324	2.1	592	3.8	2,600	16.6	286	1.8	2,224	14.2	578	3.7	75	0.5
Feb	15,927	273	1.7	623	3.9	3,120	19.6	293	1.8	2,140	13.4	551	3.5	61	0.4
Mar	14,556	313	2.2	437	3.0	872	6.0	309	2.1	2,108	14.5	726	5.0	81	0.6
Apr	16,035	315	2.0	579	3.6	1,199	7.5	335	2.1	2,219	13.8	826	5.2	103	0.6
May	17,417	343	2.0	594	3.4	1,167	6.7	318	1.8	2,323	13.3	928	5.3	118	0.7
Jun	17,716	303	1.7	615	3.5	1,209	6.8	304	1.7	2,084	11.8	973	5.5	125	0.7
Jul	17,532	307	1.8	598	3.4	1,117	6.4	275	1.6	2,078	11.9	934	5.3	111	0.6
Aug	17,809	306	1.7	524	2.9	1,101	6.2	271	1.5	2,007	11.3	949	5.3	104	0.6
Sep	17,700	325	1.8	555	3.1	1,078	6.1	277	1.6	1,809	10.2	951	5.4	133	0.8
Oct	20,469	342	1.7	704	3.4	1,495	7.3	257	1.3	1,827	8.9	959	4.7	120	0.6
Nov	19,703	277	1.4	543	2.8	1,081	5.5	192	1.0	1,429	7.3	839	4.3	108	0.5
Dec	18,129	346	1.9	550	3.0	1,431	7.9	191	1.1	1,180	6.5	834	4.6	104	0.6
Total	208,680	3,744	1.8	6,914	3.3	17,470	8.4	3,308	1.6	23,428	11.2	10,048	4.8	1,243	0.6
				Low		<	<			>	>	Hig	gh		

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

Table 3.5. Collisions, by day, hour, and collision circumstances, 2021

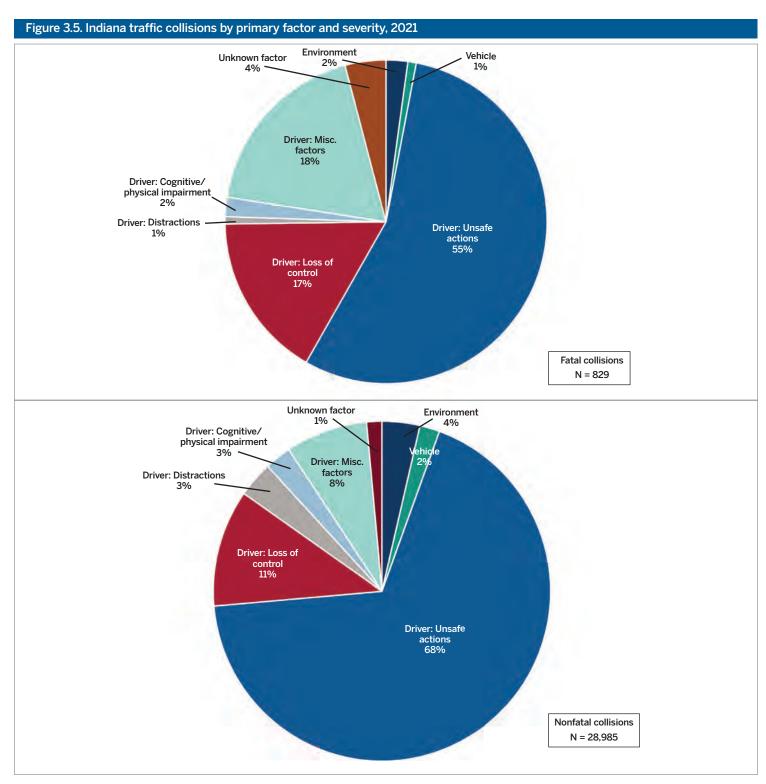
		All collisions	Alcohol-	-impaired	Aggress	ive driving	Speed	-related	Disrega	ard signal	Hit-a	nd-run		cted, any ype		cted, cell ione
Day	Time	Total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total	Count	As % of day/time total
	Midnight-5:59 a.m.	3,800	419	11.0	144	3.8	514	13.5	61	1.6	934	24.6	148	3.9	40	1.1
	6–11:59 a.m.	4,025	50	1.2	117	2.9	457	11.4	90	2.2	478	11.9	175	4.3	22	0.5
Sun	Noon-5:59 p.m.	8,276	100	1.2	271	3.3	649	7.8	166	2.0	1,037	12.5	458	5.5	47	0.6
	6 p.m.–11:59 p.m.	5,752	224	3.9	219	3.8	580	10.1	106	1.8	933	16.2	259	4.5	31	0.5
	Midnight-5:59 a.m.	2,721	89	3.3	78	2.9	352	12.9	24	0.9	381	14.0	109	4.0	19	0.7
	6–11:59 a.m.	7,931	33	0.4	214	2.7	648	8.2	144	1.8	627	7.9	348	4.4	35	0.4
Mon	Noon-5:59 p.m.	12,530	83	0.7	438	3.5	817	6.5	179	1.4	1,216	9.7	674	5.4	79	0.6
	6 p.m.–11:59 p.m.	5,766	162	2.8	165	2.9	461	8.0	102	1.8	769	13.3	261	4.5	41	0.7
	Midnight-5:59 a.m.	2,514	83	3.3	76	3.0	228	9.1	27	1.1	308	12.3	98	3.9	18	0.7
т	6–11:59 a.m.	7,925	30	0.4	205	2.6	432	5.5	141	1.8	633	8.0	369	4.7	42	0.5
Tue	Noon-5:59 p.m.	13,295	72	0.5	458	3.4	824	6.2	213	1.6	1,267	9.5	728	5.5	64	0.5
	6 p.m.–11:59 p.m.	5,890	153	2.6	200	3.4	493	8.4	106	1.8	814	13.8	290	4.9	46	0.8
	Midnight-5:59 a.m.	2,677	105	3.9	87	3.2	309	11.5	21	0.8	339	12.7	84	3.1	14	0.5
Wed	6-11:59 a.m.	8,196	28	0.3	236	2.9	521	6.4	164	2.0	623	7.6	398	4.9	39	0.5
wea	Noon-5:59 p.m.	13,565	67	0.5	468	3.5	823	6.1	207	1.5	1,310	9.7	710	5.2	59	0.4
	6 p.m.–11:59 p.m.	6,165	169	2.7	203	3.3	484	7.9	98	1.6	864	14.0	286	4.6	40	0.6
	Midnight-5:59 a.m.	2,641	90	3.4	84	3.2	302	11.4	23	0.9	383	14.5	88	3.3	14	0.5
Thu	6–11:59 a.m.	8,098	37	0.5	240	3.0	543	6.7	138	1.7	616	7.6	394	4.9	41	0.5
mu	Noon-5:59 p.m.	13,266	75	0.6	463	3.5	880	6.6	230	1.7	1,294	9.8	685	5.2	80	0.6
	6 p.m.–11:59 p.m.	6,363	186	2.9	227	3.6	534	8.4	94	1.5	925	14.5	293	4.6	48	8.0
	Midnight-5:59 a.m.	2,913	142	4.9	112	3.8	327	11.2	41	1.4	450	15.4	118	4.1	21	0.7
Fri	6–11:59 a.m.	8,556	42	0.5	249	2.9	582	6.8	133	1.6	748	8.7	402	4.7	46	0.5
111	Noon-5:59 p.m.	14,846	90	0.6	521	3.5	845	5.7	226	1.5	1,482	10.0	853	5.7	82	0.6
	6 p.m.–11:59 p.m.	8,133	280	3.4	337	4.1	680	8.4	137	1.7	1,249	15.4	377	4.6	70	0.9
	Midnight-5:59 a.m.	3,482	345	9.9	119	3.4	418	12.0	39	1.1	753	21.6	137	3.9	27	8.0
Sat	6–11:59 a.m.	5,553	70	1.3	183	3.3	424	7.6	115	2.1	598	10.8	282	5.1	32	0.6
out	Noon-5:59 p.m.	10,009	97	1.0	306	3.1	646	6.5	156	1.6	1,142	11.4	533	5.3	60	0.6
	6 p.m.–11:59 p.m.	7,529	337	4.5	270	3.6	659	8.8	127	1.7	1,255	16.7	309	4.1	63	0.8
Sun	(Total)	21,853	793	3.6	751	3.4	2,200	10.1	423	1.9	3,382	15.5	1,040	4.8	140	0.6
Mon	(Total)	28,948	367	1.3	895	3.1	2,278	7.9	449	1.6	2,993	10.3	1,392	4.8	174	0.6
Tue	(Total)	29,624	338	1.1	939	3.2	1,977	6.7	487	1.6	3,022	10.2	1,485	5.0	170	0.6
Wed	(Total)	30,603	369	1.2	994	3.2	2,137	7.0	490	1.6	3,136	10.2	1,478	4.8	152	0.5
Thu	(Total)	30,368	388	1.3	1,014	3.3	2,259	7.4	485	1.6	3,218	10.6	1,460	4.8	183	0.6
Fri	(Total)	34,448	554	1.6	1,219	3.5	2,434	7.1	537	1.6	3,929	11.4	1,750	5.1	219	0.6
Sat	(Total)	26,573	849	3.2	878	3.3	2,147	8.1	437	1.6	3,748	14.1	1,261	4.7	182	0.7
		202,417	3,658	1.8	6,690	3.3	15,432	7.6	3,308	1.6	23,428	11.6	9,866	4.9	1,220	0.6
						_										

High

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

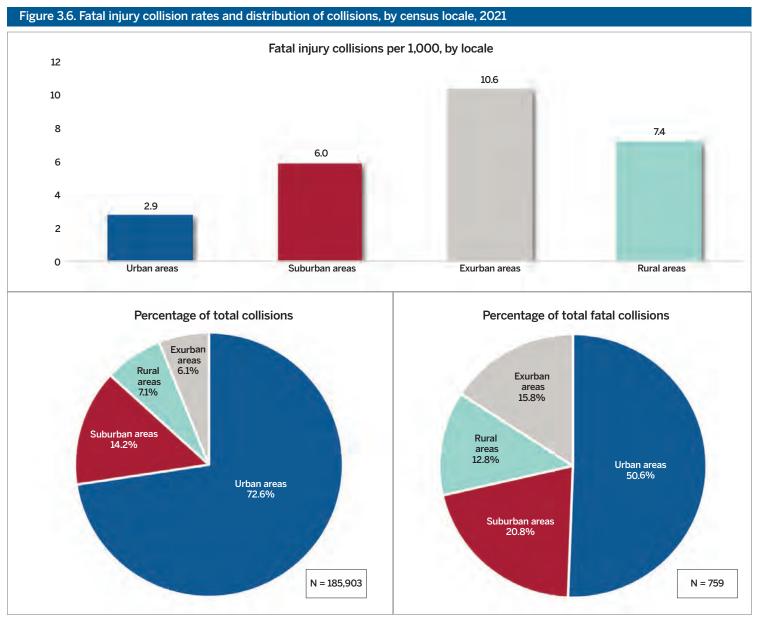
Table 3.6. Indiana collisions by primary factor and collision severity, 2021

		Collisions	s, by severity		Fatal collisions
Primary factor	Total	Fatal	Nonfatal	Property damage	per 1,000 collisions
Driver: Unsafe actions	136,180	458	19,731	115,991	3.4
Failure to yield right of way	34,259	103	7,404	26,752	3.0
Following too closely	32,857	30	4,165	28,662	0.9
Unsafe backing	17,707	8	187	17,512	0.5
Unsafe lane movement	12,420	27	1,128	11,265	2.2
Disregard signal/regulatory sign	8,414	57	2,693	5,664	6.8
Improper turning	8,047	4	525	7,518	0.5
Speed too fast for weather conditions	6,144	19	853	5,272	3.1
Improper lane usage	5,626	9	413	5,204	1.6
Unsafe speed	4,842	93	1,264	3,485	19.2
Left of center	3,241	90	785	2,366	27.8
Improper passing	2,345	8	233	2,104	3.4
Wrong way on one way	278	10	81	187	36.0
Driver: Loss of control	15,897	137	3,225	12,535	8.6
Ran off road	12,753	114	2,693	9,946	8.9
Overcorrecting/oversteering	3,144	23	532	2,589	7.3
Driver: Distractions	6,517	6	985	5,526	0.9
Unspecified distraction	5,957	6	881	5,070	1.0
Cell phone/other electronic device	560	0	104	456	0.0
Driver: Cognitive/physical impairment	2,440	16	737	1,687	6.6
Driver asleep or fatigued	1,635	3	358	1,274	1.8
Driver illness	805	13	379	413	16.1
Driver: Miscellaneous factors	15,966	153	2,278	13,535	9.6
Other (unspecified)	15,276	78	1,817	13,381	5.1
Influenced by pedestrian action	690	75	461	154	108.7
Driver factors (all)	177,000	770	26,956	149,274	4.4
Environmental factors	23,769	18	1,051	22,700	0.8
Vehicle factors	4,737	7	555	4,175	1.5
Unknown	1,316	34	423	2,717	25.8
All collisions	208,680	829	28,985	178,866	4.0

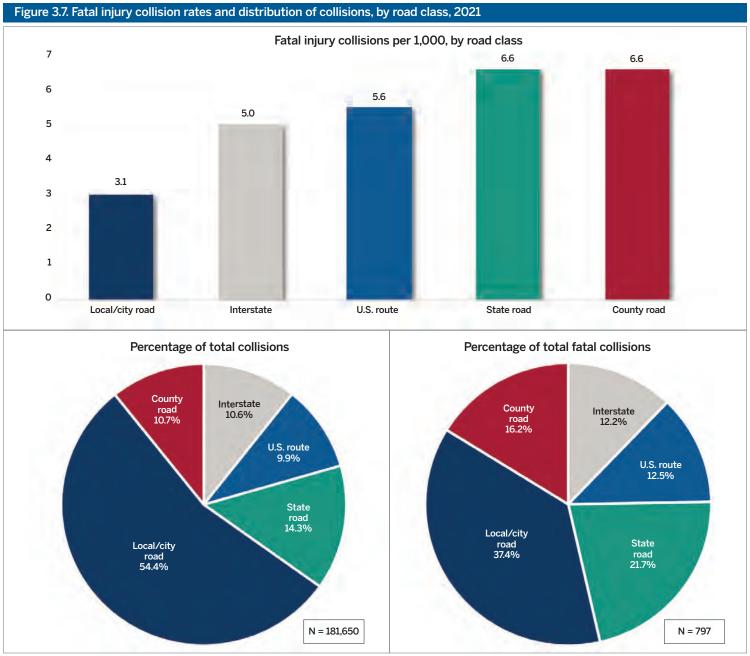


# Notes:

- 1) See Table 3.6 for definitions of factor categories related to driver actions.
- 2) Nonfatal collisions include collisions classified as nonfatal and property damage for collisions severity.
- 3) Limited to collisions for which the primary factor is known.



- 1) includes only collisions where valid locale was identified.
  2) Fatal injury collision rate is calculated per 1,000 total collisions in each locale.
- 3) See glossary for census locale definitions.



Note: Excludes unknown road class.

Table 3.7. Indiana traffic collisions by severity and road parameters, 2021

		Collisions	, by severity		Fatal collisions
	Total	Fatal	Nonfatal	Property damage	per 1,000 collisions
Total collisions	208,680	829	28,985	178,866	4.0
By junction type					
No junction involved	137,313	566	16,119	120,628	4.1
Four-way intersection	41,853	151	8,571	33,131	3.6
T-intersection	20,423	74	3,183	17,166	3.6
Ramp	3,716	16	441	3,259	4.3
Traffic circle/roundabout	2,086	2	141	1,943	1.0
Interchange	1,614	5	241	1,368	3.1
Y-intersection	704	5	129	570	7.1
Five point or more	457	0	69	388	0.0
Railroad crossings	446	10	78	358	22.4
Trail crossings	38	0	12	26	0.0
Unknown	30	0	1	29	0.0
By road character					
Straight	133,796	331	19,502	113,963	2.5
Level	116,044	281	16,874	98,889	2.4
Graded	14,039	33	2,048	11,958	2.4
Hillcrest	3,713	17	580	3,116	4.6
Curve	12,630	70	2,207	10,353	5.5
Level	8,602	48	1,474	7,080	5.6
Graded	3,333	20	598	2,715	6.0
Hillcrest	695	2	135	558	2.9
Non-roadway crash	4,279	3	163	4,113	0.7
Unknown	57,975	425	7,113	50,437	7.3
Roadway surface type					
Asphalt	182,731	736	25,755	156,240	4.0
Concrete	22,636	76	2,963	19,597	3.4
Gravel	2,271	12	165	2,094	5.3
Other	832	5	97	730	6.0
Unknown	210	0	5	205	0.0

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

Table 3.8. Indiana traffic collisions by severity and manner of collision, 2021

		Collisions,	, by severity		Fatal collisions
Manner of collision	Total	Fatal	Nonfatal	Property damage	per 1,000 collisions
Total collisions	208,680	829	28,985	178,866	4.0
Rear end	47,037	80	6,572	40,385	1.7
Ran off road	27,462	234	5,539	21,689	8.5
Right angle	27,622	146	7,125	20,351	5.3
Same direction sideswipe	23,553	21	1,256	22,276	0.9
Backing	18,266	4	221	18,041	0.2
Collision with deer	14,817	2	242	14,573	0.1
Left turn	11,714	32	2,300	9,382	2.7
Opposite direction sideswipe	4,948	9	520	4,419	1.8
Head on	4,374	115	1,497	2,762	26.3
Collision with object in road	3,052	35	292	2,725	11.5
Right turn	3,144	1	287	2,856	0.3
Left/right turn	2,384	1	282	2,101	0.4
Collision with animal other	1,346	0	78	1,268	0.0
Non-collision	1,341	18	285	1,038	13.4
Rear to rear	445	0	27	418	0.0
Other (explained in narrative)	13,775	100	2,004	11,671	7.3
Unknown	3,400	31	458	2,911	9.1

as of April 8, 2022.

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

Table 3.9. Indiana collisions, by severity and traffic control type, 2021

		Collisions	s, by severity		Fatal collisions
Traffic control type	Total	Fatal	Nonfatal	Property damage	per 1,000 collisions
Total collisions	208,680	829	28,985	178,866	4.0
Traffic control signal	31,984	57	5,980	25,947	1.8
Lane control	25,381	98	4,000	21,283	3.9
Stop sign	16,522	44	3,477	13,001	2.7
Yield sign	1,375	4	171	1,200	2.9
No passing zone	803	8	156	639	10.0
Roundabout intersection	635	0	47	588	0.0
Other regulatory sign/marking	525	2	103	420	3.8
Flashing overhead beacon	236	3	35	198	12.7
Railroad crossing	143	3	13	127	21.0
Person directing traffic	144	0	26	118	0.0
Flashing signal	1	0	1	0	0.0
Other	380	1	47	332	2.6
None	72,446	184	7,807	64,455	2.5
Unknown	58,105	425	7,122	50,558	7.3

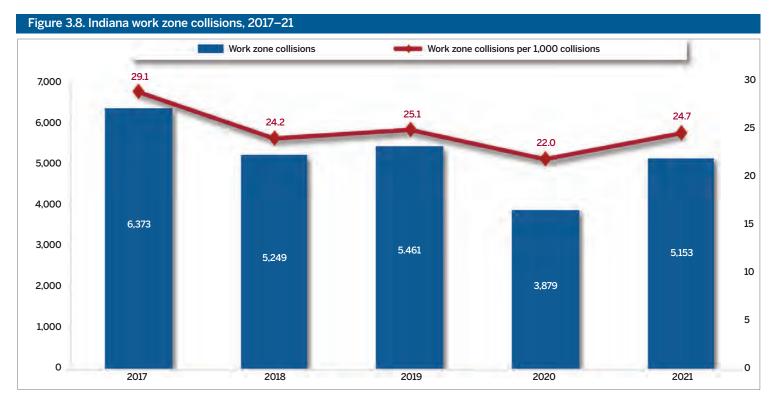
Source: Analysis provided by the Indiana University Public Policy Institute using data downloaded from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 8, 2022.

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

Table 3.10. Indiana traffic collisions by severity and environmental conditions, 2021

		Collisions	, by severity		Fatal collisions
	Total	Fatal	Nonfatal	Property damage	per 1,000 collisions
All collisions	208,680	829	28,985	178,866	4.0
By light conditions					
Daylight	136,861	408	19,674	116,779	3.0
Dark (lighted)	30,275	134	4,341	25,800	4.4
Dark (not lighted)	30,137	240	3,704	26,193	8.0
Dawn/dusk	9,894	41	1,247	8,606	4.1
Unknown	1,513	6	19	1,488	4.0
By weather conditions					
Clear	142,533	598	20,181	121,754	4.2
Cloudy	35,982	147	5,003	30,832	4.1
Rain	19,080	57	2,627	16,396	3.0
Snow	6,441	13	655	5,773	2.0
Sleet/hail/freezing rain	1,545	2	195	1,348	1.3
Blowing Sand/soil/snow	1,438	2	146	1,290	1.4
Fog/smoke/smog	1,094	9	151	934	8.2
Severe cross wind	195	1	24	170	5.1
Unknown	372	0	3	369	0.0
By road surface conditions					
Dry	163,702	689	23,248	139,765	4.2
Wet	31,456	117	4,376	26,963	3.7
Snow/slush	7,856	11	693	7,152	1.4
Ice	4,003	7	464	3,532	1.7
Water (standing or moving)	750	3	99	648	4.0
Loose material on road	398	2	79	317	5.0
Muddy	142	0	22	120	0.0
Unknown	373	0	4	369	0.0

 $Note: Fatal\ collision\ rate\ is\ calculated\ per\ 1,000\ total\ collisions\ in\ each\ environmental\ condition\ category.$ 





# MOTORCYCLES

LANGE PIOT

# **MOTORCYCLES, 2021**

The number of motorcycle-involved collisions increased slightly from 2,788 in 2020 to 2,877 in 2021 after a steady decline in the number of collisions from 2017 to 2019 (Figure 4.1). In each of the last five years (2017–21), there were more multi-vehicle (MV) collisions than single-vehicle (SV) collisions. The number and proportion of fatal single-vehicle collisions decreased from 64 and 5% in 2020 to 48 and 4% in 2021. While fatal multi-vehicle collisions increased from 74 in 2020 to 83 in 2021, the proportion of fatal to all collisions was the same at almost 5%.

Similar to collisions, the number of motorcyclists involved in collisions rose only slightly from 2,948 in 2020 to 2,952 in 2021 after having seen a steady decline over the previous three years (Table 4.1). Among motorcyclists, there were 129 fatalities and 1,934 individuals with nonfatal injuries in 2021. Fatalities decreased 9% and nonfatal injuries fell 2% from 2020. Nearly 70% of motorcycle riders involved in collisions were either injured (66%) or killed (4%). Motorcycle collisions accounted for 14% of all traffic fatalities in 2021 (Figure 4.2)

# Time, day of week, and month

In 2021, the counts of motorcycle collisions were highest between the 2 p.m. and 7 p.m. hours, peaking during the 5 p.m. hour. The proportion of motorcycle collisions that resulted in fatal and incapacitating injuries was highest in early morning hours (the 12 a.m., 1 a.m., 3 a.m., and 4 a.m. hours), peaking during the 12 a.m. hour (Figure 4.3). Generally, motorcycle collisions made up the biggest proportion of all collisions during evening hours (5 p.m. to 10 p.m.). and declined during morning hours (3 a.m. to 9 a.m.) (Table 4.2). 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 2017 and 2021, total collisions were most frequent during the late fall and winter months, October to January. In contrast, motorcycle collisions during this period were highest in the spring and summer months, May to September (Table 4.3). Motorcycle collisions in 2021 followed this general trend, with the highest number of collisions in June, July, and August. While the numbers of collisions with fatal or incapacitating injuries were highest in June and July, the highest rates of fatal and incapacitating motorcycle collisions occurred in May (50%), July (50%), and February (48%) (Figure 4.4).

# Vehicle type

In 2021, 74% of motorcycle operators or passengers involved in collisions were on motorcycles, with the remainder being on other two-or-three-wheeled vehicles (calculated from Table 4.4). The number of motorcyclists in collisions involving mopeds, motor-driven cycles—Class A, and motorized bicycles increased from 2020 to 2021.

The number of motorcyclists in collisions involving motor-driven cycles—Class B declined by 9%. Fatalities on motorcycles decreased from 116 in 2020 to 103 in 2021. The number of moped riders sustaining nonfatal injuries grew dramatically by 3,600% from 1 in 2020 to 37 in 2021.

# Alcohol impairment

In 2021, passenger vehicle drivers involved in crashes were slightly more likely than motorcycle operators to be impaired (Table 4.5). For crashes with reported blood alcohol content (BAC) results, 61% of motorcycle operators in single-vehicle crashes and 34% of operators in multi-vehicle crashes were impaired (BAC of 0.08 g/dL or more).

## Helmet use

Helmet use is associated with lower injury (including fatalities) rates among motorcyclists in collisions (Figure 4.5). Among motorcyclists in collisions, 75% who were not wearing helmets experienced fatal or nonfatal injuries. In 2021, female motorcyclists (30%) had lower rates of helmet use than their male counterparts (34%) (Table 4.6). In 2017 to 2019, male motorcyclists had higher rates of helmet use. In 2021, 33% of males who sustained fatal or incapacitating injuries were wearing helmets. Female motorcyclists in the 21–24 age group had the lowest rate of helmet use in all collisions (19%) and among those who sustained fatal or incapacitating injuries (0%).

In 2021, motorcyclists involved in collisions in rural (36%) and suburban (35%) areas were more likely to be wearing a helmet than motorcyclists in exurban (33%) or urban (31%) areas (Figure 4.6). Motorcyclists who were killed in exurban collisions were more likely to be wearing a helmet (40%) than those killed in urban areas (37%), suburban areas (14%) or rural areas (11%).

# **Collision characteristics**

Motorcycle collision injury rates vary depending on light, weather, and road conditions present at the time of a crash (Table 4.7 and Figure 4.7). Motorcycle collisions occurred predominantly during daylight hours, in clear weather, on straight roads, and at locations that were not intersections. The probability of a fatal motorcycle collisions was greatest in dark unlit conditions (9%), on cloudy days (5%), and on road curves (4%). Forty–one percent of fatal collisions occurred on local/city roads (Figure 4.8).

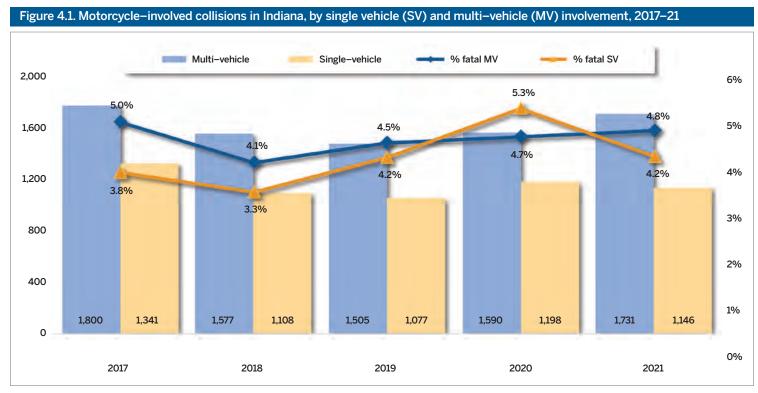


Table 4.1. Motorcyclists involved in Indiana collisions by injury status, 2017–21											
All motorcyclists	2017	2018	2019	2020	2021	Annual rate 2020–21	of change 2017–21				
All motorcyclists	3,403	2,876	2,701	2,948	2,952	0.1%	-3.5%				
Fatal	144	112	112	142	129	-9.2%	-2.7%				
Nonfatal injuries	2,288	1,932	1,819	1,968	1,934	-1.7%	-4.1%				
Not injured	971	832	770	838	889	6.1%	-2.2%				
Fatality and injury rates											
% fatal	4.2%	3.9%	4.1%	4.8%	4.4%						
% nonfatal injuries	67.2%	67.2%	67.3%	66.8%	65.5%						

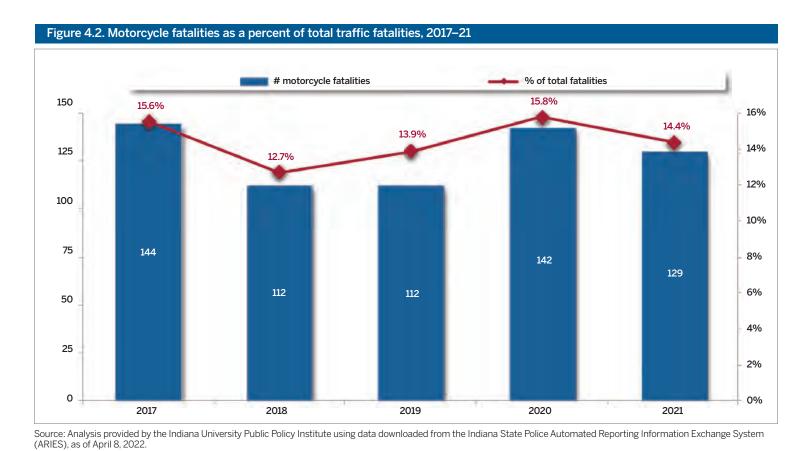
Source: Analysis provided by the Indiana University Public Policy Institute using data downloaded from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 8, 2022.

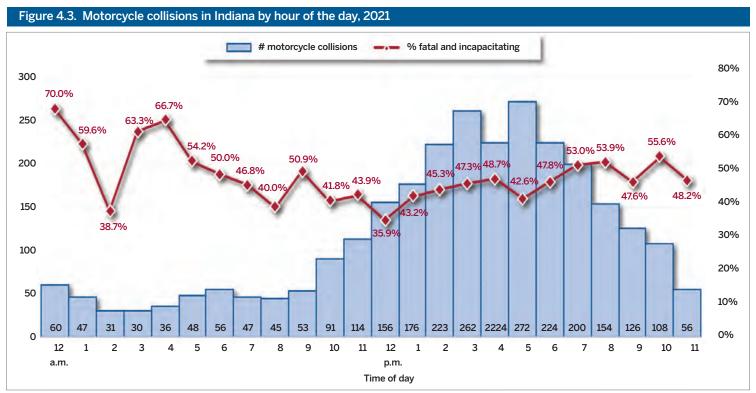
# Notes

1) Motorcyclists include operators and passengers on motorcycles, Class A and Class B motor-driven cycles, mopeds, and motorized bicycles.

2) Nonfatal injuries include individuals with at least one incapacitating, non-incapacitating, or other injury.

<sup>3)</sup> 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.





Note: Excludes collisions where hour or injury status was unknown or not reported.

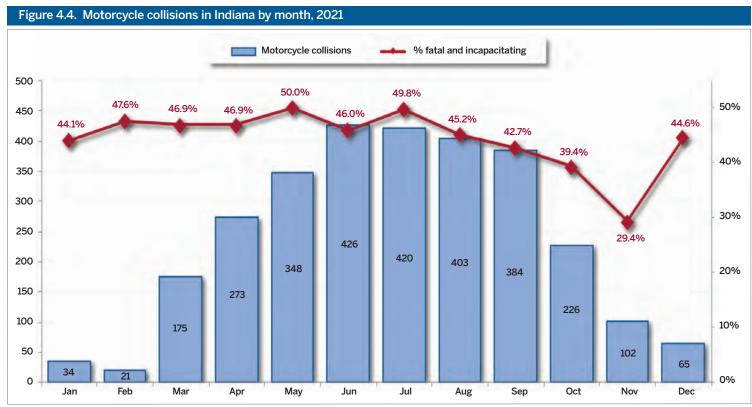
me	Sun	Mon	Tue	Wed	Thu	Fri	Sat	% Motorcycle by hour
12a.m.	1.5%	2.5%	1.7%	1.2%	1.5%	1.9%	1.4%	1.6%
1a.m.	2.3%	1.1%	2.2%	0.3%	2.1%	1.5%	0.6%	1.5%
2a.m.	1.7%	1.0%	1.0%	1.2%	0.6%	0.8%	0.9%	1.1%
3a.m.	0.4%	1.7%	1.2%	1.4%	0.8%	1.0%	0.8%	1.0%
4a.m.	0.6%	1.5%	1.3%	0.9%	1.0%	1.0%	1.3%	1.1%
5a.m.	0.5%	1.0%	1.5%	1.2%	1.1%	0.4%	1.4%	1.0%
6a.m.	1.1%	0.7%	0.9%	0.3%	0.8%	1.3%	1.0%	0.9%
7a.m.	0.9%	0.6%	0.4%	0.6%	0.4%	0.3%	0.5%	0.5%
8a.m.	0.9%	0.7%	0.8%	0.3%	0.3%	0.6%	0.7%	0.6%
9a.m.	0.7%	0.3%	0.4%	0.3%	0.5%	1.1%	2.0%	0.7%
10a.m.	1.0%	0.3%	1.0%	0.7%	0.9%	1.5%	1.9%	1.1%
11a.m.	2.1%	0.9%	1.2%	0.6%	0.7%	0.8%	1.7%	1.1%
12p.m.	2.1%	0.9%	1.1%	0.9%	1.4%	0.7%	2.0%	1.3%
1p.m.	2.7%	1.5%	1.6%	0.6%	0.8%	1.2%	2.5%	1.5%
2p.m.	3.5%	1.4%	1.3%	1.1%	1.1%	1.2%	2.8%	1.6%
3p.m.	3.0%	1.2%	1.5%	0.9%	1.1%	1.7%	3.2%	1.6%
4p.m.	2.9%	1.2%	1.3%	0.7%	0.9%	1.1%	2.8%	1.4%
5p.m.	3.9%	1.7%	1.5%	1.4%	1.4%	1.2%	2.2%	1.7%
6p.m.	2.6%	1.7%	2.0%	1.7%	1.4%	2.0%	1.6%	1.8%
7p.m.	3.3%	1.7%	2.5%	1.7%	1.5%	1.8%	2.5%	2.1%
8p.m.	2.5%	2.2%	1.8%	2.0%	1.9%	2.1%	2.0%	2.1%
9p.m.	1.4%	2.0%	2.1%	1.5%	2.4%	1.8%	2.0%	1.9%
10p.m.	2.3%	2.8%	1.4%	1.6%	1.7%	1.4%	2.5%	2.0%
11p.m.	2.0%	1.0%	0.8%	1.1%	1.1%	1.3%	1.5%	1.3%
motorcycle by day	2.2%	1.2%	1.3%	1.0%	1.1%	1.3%	2.0%	1.4%

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

T-1-1- 4 7 T-1-1	motorcycle collisions.	L
Iania /L 🛪 Intal and	motorcycle collisions	ny month zulizezi

Month			Total collisions				Мо	otorcycle collisio	ns	
Month	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Jan	17,277	20,788	19,459	15,787	15,687	27	34	37	34	34
Feb	14,574	16,180	16,982	16,852	15,927	49	28	55	21	28
Mar	16,970	16,982	15,967	11,816	14,556	74	85	94	175	85
Apr	17,028	15,777	16,389	8,012	16,035	172	197	136	273	197
May	19,457	18,423	18,331	12,251	17,417	443	322	319	348	321
Jun	19,009	17,288	17,686	14,579	17,716	391	387	456	426	387
Jul	17,157	17,270	17,655	15,451	17,532	432	406	417	420	404
Aug	17,727	17,861	18,092	15,428	17,809	397	426	448	403	426
Sep	17,962	17,751	17,526	15,208	17,700	368	370	375	384	370
Oct	20,000	20,315	20,156	17,695	20,469	218	218	230	226	218
Nov	20,081	20,157	20,542	16,898	19,703	73	55	179	102	55
Dec	22,078	18,495	18,818	15,959	18,129	41	54	42	65	54
Total	219,320	217,287	217,603	175,936	208,680	2,685	2,582	2,788	2,877	2,579
High	Dec	Jan	Nov	Oct	Oct	Jun	May	Aug	Jun	Jun
Low	Feb	Apr	Mar	Apr	Mar	Jan	Jan	Feb	Jan	Feb
		Low		<		>		High		

Note: Color-scales are illustrated to show months from low to high for the entire 5-year period, 2017–21.



11-21-1 41-2	Count of ir	ndividuals	Percent change	2021: 1
Jnit type/Injury group	2020	2021	2020-21	2021 injury rate, by unit type
All motorcyclists	2,948	2,952	0.1%	
Motorcycle	2,191	2,166	-1.1%	100%
Fatal	116	103	-11.2%	4.8%
Injury	1,464	1,442	-1.5%	66.6%
Not injured	611	621	1.6%	28.7%
Motor driven cycle-Class B	354	323	-8.8%	100%
Fatal	11	13	18.2%	4.0%
Injury	254	210	-17.3%	65.0%
Not injured	89	100	12.4%	31.0%
Motor driven cycle-Class A	326	338	3.7%	100%
Fatal	14	10	-28.6%	3.0%
Injury	205	202	-1.5%	59.8%
Not injured	107	126	17.8%	37.3%
Motorized bicycle	75	77	2.7%	100%
Fatal	0	2	N/A	2.6%
Injury	44	43	-2.3%	55.8%
Not injured	31	32	3.2%	41.6%
Moped	2	48	2300.0%	100%
Fatal	1	1	100.0%	2.1%
Injury	1	37	3600.0%	77.1%
Not injured	0	10	N/A	20.8%

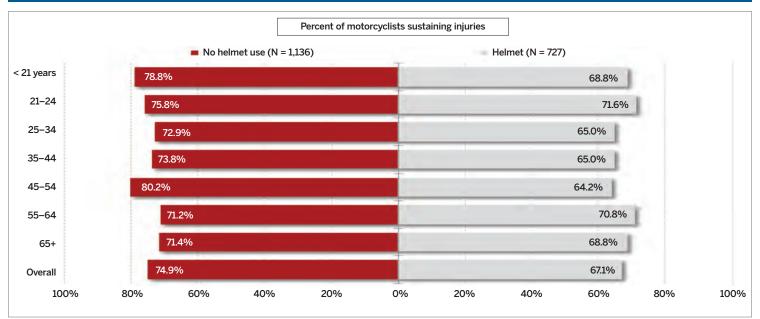
- 1) Motorcyclists include operators and passengers of motorcycles, Class A and Class B motor driven cycles, mopeds, and motorized bicycles.
  2) See Glossary for unit type definitions. ARIES includes motorized bicycle and moped as unit types.
  3) Injury includes incapacitating, non-incapacitating, other, unknown, not reported, and refused.

Table 4.5. Blood alcohol content (BAC) of vehicle operators involved in Indiana fatal and incapacitating collisions, by type of collision and vehicle type, 2021

Calliaian tama	Valaialaa issaalaa	BAC	Fatal	la a a a a a lika ki a a	All an austana	All operators, impa	All operators, impaired as percent of:		
Collision type	Vehicles involved	BAC range	Fatal	Incapacitating	All operators	Reported results	All		
		Total operators	47	561	608				
		0 g/dL	7	9	16				
	Motorcycles	0.01-0.07	1	2	3	61.2%	4.9%		
	Wiotorcycles	0.08-0.14	5	8	13	01.270	4.570		
		0.15 & above	4	13	17				
Single-vehicle		Not reported	30	529	559				
Siligie-veriicie		Total operators	321	3,740	4,061				
		0 g/dL	46	108	154				
Deepe	Passenger vehicles	0.01-0.07	3	30	33	57.4%	6.2%		
	assenger vernicles	0.08-0.14	17	72	89				
		0.15 & above	23	140	163				
		Not reported	232	3,390	3,622				
		Total operators	86	642	728		1.9%		
		0 g/dL	16	10	26				
	Motorcycles	0.01-0.07		1	1	34.1%			
	Wiotorcycles	0.08-0.14	3	2	5	34.170	1.570		
		0.15 & above	3	6	9				
Multi-vehicle		Not reported	64	623	687				
Widiti-Verlicie		Total operators	685	17,446	18,131				
		0 g/dL	148	200	348		1.5%		
	Passenger vehicles	0.01-0.07	13	38	51	39.8%			
	assenger verifices	0.08-0.14	17	71	88		1.570		
		0.15 & above	21	155	176				
		Not reported	486	16,982	17,468				

- BAC range in grams per deciliter (g/dL). 0.08 or greater is legally impaired.
   Includes only the operators of motorcycles and passenger vehicles (passenger car, pickup truck, sport utility vehicle, and van).
   Reported results include only those records in ARIES that have a BAC result (i.e., excludes NULL values). Excludes cases with BAC more than 0.59 g/dL.

Figure 4.5. Fatal and incapacitating injuries as a percent of total motorcyclists involved in Indiana collisions, by helmet use and age group, 2021



Note: Excludes cases with unknown age or helmet use.

### Table 4.6. Helmet usage among motorcyclists involved in Indiana collisions, by age group and gender, 2017-21

All motorcyclists

	20	)17	20	018	20	019	20	20	20	021
Age group	Male	Female								
15–20	52.8%	36.4%	53.6%	32.6%	60.6%	30.0%	48.7%	27.6%	52.0%	55.6%
21-24	47.2%	23.5%	54.3%	25.0%	51.4%	19.2%	39.8%	31.0%	52.3%	18.8%
25-34	34.0%	27.8%	33.1%	22.6%	38.0%	28.8%	32.1%	41.6%	38.3%	34.7%
35-44	27.9%	22.7%	26.0%	18.1%	25.0%	28.6%	24.9%	29.0%	22.8%	22.5%
45-54	22.8%	18.5%	19.9%	20.9%	28.8%	30.0%	24.6%	28.7%	25.6%	25.3%
55-64	29.7%	46.4%	27.1%	30.8%	26.4%	43.2%	28.3%	40.7%	27.2%	36.6%
65+	51.3%	60.0%	39.3%	40.0%	42.0%	50.0%	42.1%	38.5%	41.8%	30.8%
All ages	33.3%	29.0%	31.7%	24.7%	35.0%	31.0%	31.1%	34.0%	33.6%	30.1%

### Motorcyclists experiencing fatal or incapacating injuries

	20	)17	20	)18	20	)19	20	20	20	)21
Age group	Male	Female								
15-20	49.4%	38.5%	45.8%	27.8%	59.7%	40.0%	45.9%	33.3%	57.5%	85.7%
21-24	44.6%	20.0%	44.4%	25.0%	44.0%	21.4%	36.8%	31.6%	57.4%	0.0%
25-34	37.1%	30.6%	31.6%	20.9%	37.1%	33.3%	28.5%	36.4%	39.3%	31.7%
35-44	24.7%	17.2%	18.2%	17.6%	20.6%	21.6%	24.4%	32.5%	22.7%	24.4%
45-54	22.2%	19.1%	16.3%	14.0%	29.9%	26.3%	18.8%	30.3%	22.8%	25.5%
55-64	28.4%	48.6%	23.0%	43.5%	24.3%	34.8%	24.9%	40.0%	26.6%	31.6%
65+	46.5%	66.7%	36.0%	30.8%	42.7%	37.5%	43.7%	71.4%	38.5%	33.3%
All ages	31.9%	28.9%	26.7%	22.4%	32.7%	28.9%	28.2%	35.0%	33.3%	29.0%

Source: 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 April 8, 2022

### Notes

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

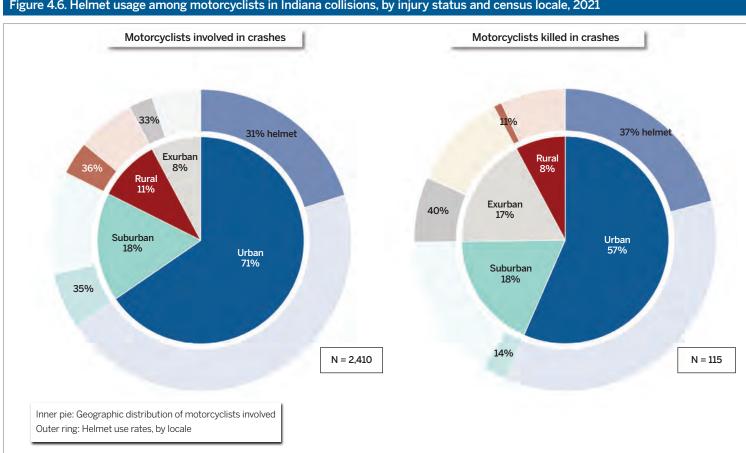


Figure 4.6. Helmet usage among motorcyclists in Indiana collisions, by injury status and census locale, 2021

Note: Excludes cases where locale could not be determined.

Observatoristics		Count	of collisions		Probability of o	collision severity
Characteristics	Fatal	Nonfatal	Property damage	Total	Fatal	Nonfatal
Light conditions	129	1,749	985	2,863		
Daylight	74	1,250	739	2,063	3.6%	60.6%
Dark (lighted)	17	222	110	349	4.9%	63.6%
Dark (not lighted)	28	196	90	314	8.9%	62.4%
Dawn/dusk	10	81	46	137	7.3%	59.1%
Weather conditions	131	1,753	991	2,875		
Clear	112	1,482	833	2,427	4.6%	61.1%
Cloudy or poor visibility	18	203	128	349	5.2%	58.2%
Extreme weather	1	68	30	99	1.0%	68.7%
Road junctions	131	1,753	993	2,877		
No junction involved	78	1,097	610	1,785	4.4%	61.5%
Intersections	49	603	356	1,008	4.9%	59.8%
Interchange/ramp	4	53	27	84	4.8%	63.1%
Road character	71	1,302	778	2,151		
Straight (level)	49	889	574	1,512	3.2%	58.8%
Curves	15	274	94	383	3.9%	71.5%
Straight (non-level)	7	132	90	229	3.1%	57.6%
Non-roadway	0	7	20	27	0.0%	25.9%
Road class	127	1,684	867	2,678		
Interstate	7	98	34	139	5.0%	70.5%
U.S. route	18	139	82	239	7.5%	58.2%
State road	28	270	125	423	6.6%	63.8%
Local/city	52	916	529	1,497	3.5%	61.2%

97

380

5.8%

68.7%

### Notes:

- 1) Excludes collisions where characteristic was unknown or not reported.
- 2) Selected characteristics are re-grouped from collision characteristics reported in ARIES, as shown below.
  - a) Weather conditions
    - Cloudy or poor visibility includes cloudy, fog/smoke/smog, and blowing sand/soil/snow.
    - ${\bf Extreme\ weather\ includes\ rain,\ severe\ cross\ wind,\ sleet/hail/freezing\ rain,\ and\ snow.}$

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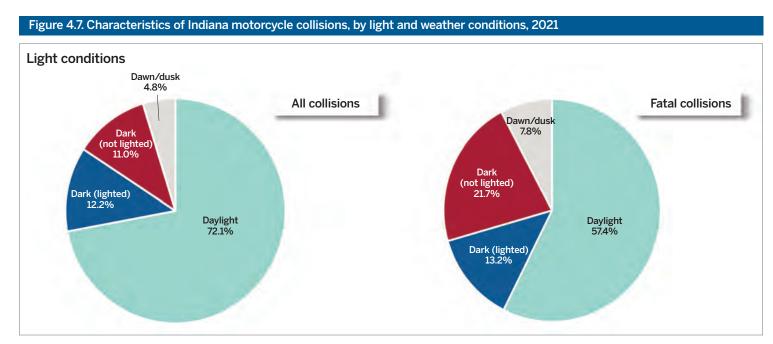
b) Road junctions

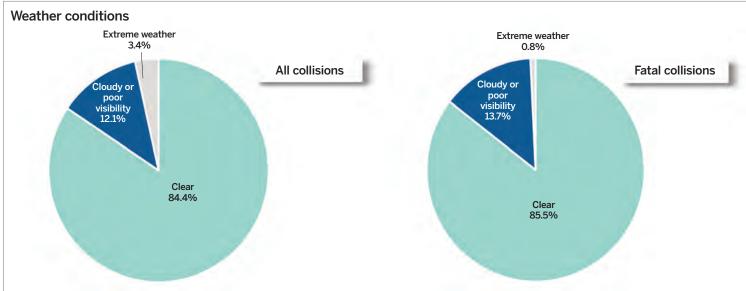
County road

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.

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- c) Road character:
  - Curves includes curve/grade, curve/hillcrest, and curve/level.
    Straight (non-level) includes straight/grade and straight/hillcrest.



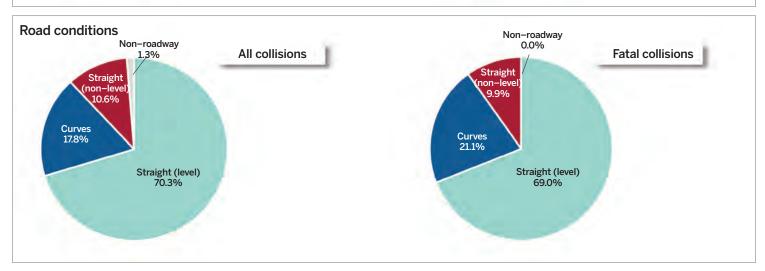


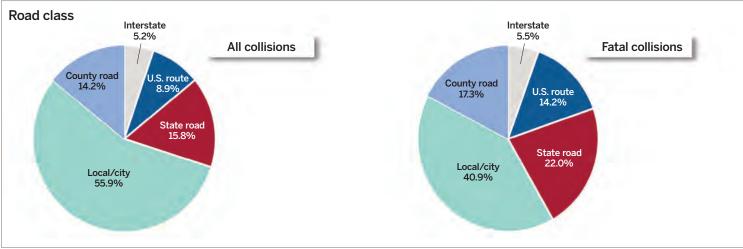
Note: Refer to notes in Table 4.7 for definitions.

Road junctions
Interchange/ramp
2.9%
All collisions

No junction involved 62.0%

No junction involved 59.5%





Note: Refer to notes in Table 4.7 for definitions.



# IMPAIRED DRIVING

LOUGHT VIEWOUT

# **IMPAIRED DRIVING, 2021**

In 2021, 105 people died in collisions that involved one or more drivers who were legally impaired by alcohol (i.e., BAC at or above 0.08 g/dL) (Figure 5.1). Of the 3,774 alcohol-impaired collisions that year, 93 claimed at least one life (Table 5.1). From 2017 to 2021, the number of people killed in crashes with impaired drivers dropped nearly 5% annually. The number of fatal collisions involving an alcohol-impaired driver also declined 5% annually. Three out of every four people killed in alcohol-impaired collisions in 2021 were male (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. About 65% of drivers involved in fatal collisions in 2021 were tested for alcohol and/or drugs, compared to only 9% of drivers in crashes that involved incapacitating injuries (Table 5.2). Of drivers involved in fatal collisions, those between 25 and 34 years old had the highest rate of testing (64%), while drivers between 65 and 74 years had the lowest rate (56%). Among all drivers tested, 44% had BAC results in the ARIES database (calculated from Table 5.3).

Testing rates for driver alcohol-impairment also varied by the severity of driver injuries. From 2017 to 2021, test rates varied significantly by whether the driver survived the crash or died (Table 5.3). Generally, surviving drivers were tested more often than those who suffered a fatal injury. In 2021, 71% of surviving drivers were tested, compared to 53% of those who died. The data shows a substantial difference in test results between these two groups, as well. Among drivers with reported BAC results in 2021, those who survived had far lower impairment rates (9%) than those who were killed (48%). Rates of positive drug test results were higher than alcohol impairment for both drivers in a crash who survived and those who were killed.

### **Driver impairment by age and gender**

The number of all drivers involved in fatal collisions in 2021 rose 5% from 2020. The number of impaired drivers in fatal collisions decreased by 22% during that time (Table 5.4). Representation of impaired drivers was disproportionately high in some age groups. In 2021, the largest proportion of impaired drivers in fatal collisions was the 25-to 34-year-old age group (36%), and this same group made up 22% of all drivers in fatal collisions.

Male drivers are far more likely than female drivers to have been involved in fatal collisions, accounting for roughly three out of every four drivers in fatal crashes in 2021 (Figure 5.3). Among drivers in fatal collisions, 8% of male drivers and 7% of female drivers were impaired.

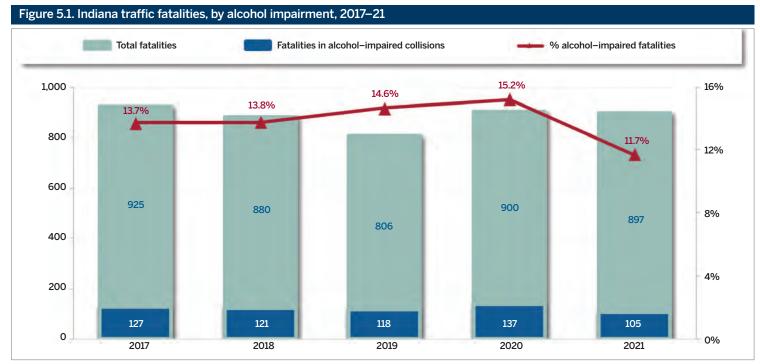
# Impaired driving by month, day of week, and time of day

Trends emerge when looking at how alcohol-impaired fatalities and injuries in Indiana vary by month, day of week, and time of day. Between 2017 and 2021, the months of May, June, July, and September had the highest counts of fatalities from alcohol-impaired collisions (Figure 5.4). The highest percentage of monthly drunk driving fatalities was in June (18%). The highest percentage of nonfatal injuries in alcohol-involved crashes occurred in March (4%).

In 2021, hourly rates of crashes involving serious injuries and impaired driving followed similar patterns (Figure 5.5). The highest percentage of hourly fatal and incapacitating injuries happened most often between the hours of midnight and 4 a.m. The highest hourly rates of alcohol–impaired crashes as well as fatal and incapacitating injuries Saturdays and Sundays between 2–4 a.m.

### Impaired driving by locale and road type

The distribution of fatal collisions varies by census locale (Figure 5.6). In 2021, there was a higher proportion of fatal crashes in nonurban areas than in urban areas. However, the highest rate of fatal crashes involving an alcohol-impaired driver was in urban areas, with 16% linked to impairment. In 2021, the highest proportions of fatal collisions (30%) and fatal collisions that involved an impaired driver (19%) were on local/city roads (Figure 5.7).



Note: Alcohol-impaired fatalities occurred in collisions that involved at least one driver or non-motorist with a BAC of 0.08 g/dL or greater.

Table 5.1. Indiana collisions	and injuries involving	alcohol-impai	red drivers, 20	17–21			
						Annual rate	e of change
	2017	2018	2019	2020	2021	2020–21	2017-21
Collisions involving an alcohol-impa	aired driver						
Total collisions	4,573	4,060	3,949	3,843	3,774	-1.8%	-4.7%
Fatal	113	98	116	119	93	-21.8%	-4.8%
Injury	1,268	1,072	1,021	978	887	-9.3%	-8.5%
Property damage	3,192	2,890	2,812	2,746	2,794	1.7%	-3.3%
Individuals in collisions involving an	alcohol-impaired driver						
Total individuals	6,681	5,888	5,729	5,472	5,527	1.0%	-4.6%
Fatal	127	121	118	137	105	-23.4%	-4.6%
Injured	1,857	1,602	1,525	1,426	1,293	-9.3%	-8.7%
Not injured	4,697	4,165	4,086	3,909	4,129	5.6%	-3.2%

Source: 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 April 8, 2022.

Note: Individuals injured includes incapacitating, non-incapacitating, possible, refused, and unknown injury status categories.

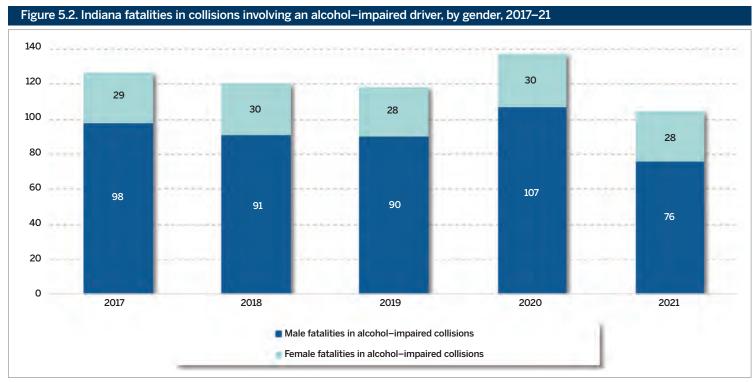


Table 5.2. Drivers in Indiana collisions who were tested for alcohol or other substances, by age and collision severity, 2021

Note: Alcohol-impaired fatalities occurred in collisions that involved at least one driver or non-motorist with a BAC of 0.08 g/dL or greater.

		Count of drivers								
		Fatal collisions			Incapacitating collision	ns				
Driver age	Tested	Total	Tested as % total	Tested	Total	Tested as % total				
15-20	79	119	66.4%	174	2,747	6.3%				
21–24	74	115	64.3%	282	2,314	12.2%				
25-34	209	283	73.9%	648	5,217	12.4%				
35-44	152	238	63.9%	449	3,976	11.3%				
45-54	115	187	61.5%	308	3,343	9.2%				
55-64	116	186	62.4%	211	2,981	7.1%				
65-74	61	109	56.0%	89	1,725	5.2%				
75+	34	60	56.7%	40	1,055	3.8%				

Source: 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 April 8, 2022.

2.201

23.358

64.8%

9.4%

### Notes

All ages

1) Tested includes drivers for which ARIES indicates an alcohol, drug, or alcohol/drug test was given.

1.297

2) Excludes ages under 15 and over 109 years and cases with unknown or non-reported age.

840

Table 5.3. Drivers involved in Indiana fatal collisions, by substance test given and reported results, 2017-21

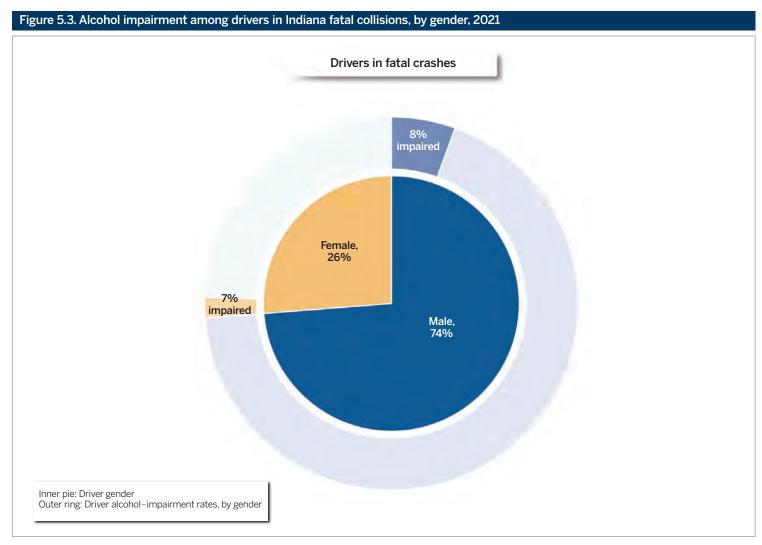
		S	urvived colli	sion			K	(illed in colli	sion	
	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Drivers in fatal collisions	665	664	618	646	721	632	571	559	600	612
By test type given										
Alcohol and/or drug	493	451	447	469	515	338	287	286	284	326
None	3	5	18	37	86	5	9	17	54	120
Refused	1	2	0	5	2	0	0	0	0	0
Not reported	168	206	153	135	118	289	275	256	262	166
Tested, as % all	74.1%	67.9%	72.3%	72.6%	71.4%	53.5%	50.3%	51.2%	47.3%	53.3%
By BAC test result										
Alcohol-impaired	32	30	33	39	20	83	70	86	83	75
Not impaired	297	308	311	270	192	122	135	124	118	80
No result reported	336	326	274	337	509	427	366	349	399	455
By drug test result										
Positive	54	75	76	90	90	107	98	123	113	115
Negative	167	198	236	234	213	97	113	122	109	106
Pending	26	9	7	15	13	22	8	2	3	4
No result reported	418	382	299	307	405	406	352	312	375	387
Alcohol-impaired, as % tested	6.5%	6.7%	7.4%	8.3%	3.9%	24.6%	24.4%	30.1%	29.2%	23.0%
Drug-positive, as % tested	11.0%	16.6%	17.0%	19.2%	17.5%	31.7%	34.1%	43.0%	39.8%	35.3%
Alcohol-impaired, as % of drivers with reported results	9.7%	8.9%	9.6%	12.6%	9.4%	40.5%	34.1%	41.0%	41.3%	48.4%
Drug-positive, as % drivers with reported results	24.4%	27.5%	24.4%	27.8%	29.7%	52.5%	46.4%	50.2%	50.9%	52.0%

1) Alcohol-impaired: BAC of 0.08 g/dL or higher.
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 (i.e., drivers can be one, the other, or both).

		Cou	int of drivers invo	lved		Annual rat	e of change	% of total
Driver age	2017	2018	2019	2020	2021	2020-21	2017-21	2021
All drivers	1,292	1,233	1,173	1,232	1,297	5.3%	0.1%	100%
15-20	123	126	94	113	119	5.3%	-0.8%	9.2%
21-24	109	91	97	101	115	13.9%	1.3%	8.9%
25-34	241	240	238	266	283	6.4%	4.1%	21.8%
35-44	212	204	198	196	238	21.4%	2.9%	18.4%
45-54	243	204	191	208	187	-10.1%	-6.3%	14.4%
55-64	186	184	173	182	186	2.2%	0.0%	14.3%
65-74	101	116	104	108	109	0.9%	1.9%	8.4%
75+	77	68	78	58	60	3.4%	-6.0%	4.6%
mpaired drivers	115	100	119	122	95	-22.1%	-4.7%	100%
15-20	3	5	3	5	6	20.0%	18.9%	6.3%
21-24	18	8	19	13	10	-23.1%	-13.7%	10.5%
25-34	37	38	27	32	34	6.3%	-2.1%	35.8%
35-44	27	20	24	23	22	-4.3%	-5.0%	23.2%
45-54	17	17	26	26	13	-50.0%	-6.5%	13.7%
55-64	9	9	12	17	7	-58.8%	-6.1%	7.4%
65-74	4	1	8	4	2	-50.0%	-15.9%	2.1%
75+	0	2	0	2	1	-50.0%	N/A	1.1%

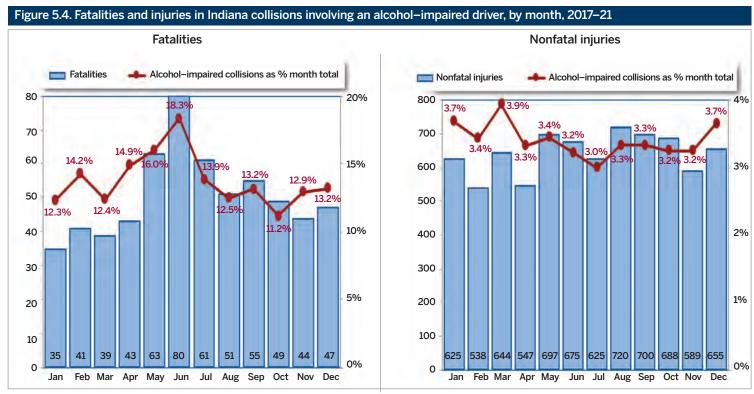
Source: Analysis provided by the Indiana University Public Policy Institute using data downloaded from the Indiana State Police Automated Reporting Information Exchange System (ARIES), as of April 8, 2022.

1) Impaired drivers are those with BAC of 0.08 g/dL or greater reported in ARIES.
2) Excludes ages under 15 and over 109 years and cases with unknown or non-reported age.

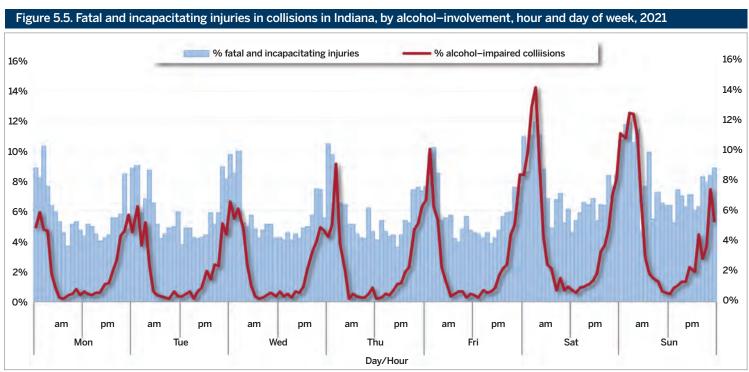


### Notes:

- 1) Alcohol-impaired includes drivers with a reported BAC of 0.08 g/dL or higher.
- 2) Limited to drivers tested for blood alcohol content with valid BAC results reported.



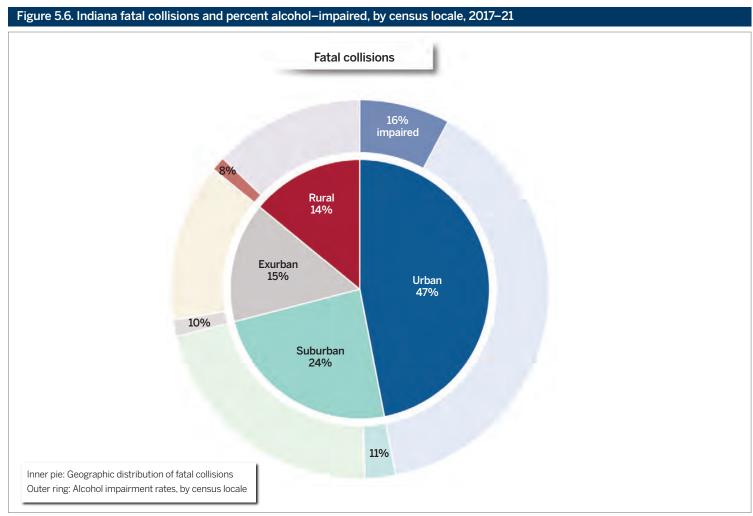
Notes: Nonfatal injuries include incapacitating, non-incapacitating, possible, refused treatment, and unknown injury status categories.



Source: 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 April 8, 2022.

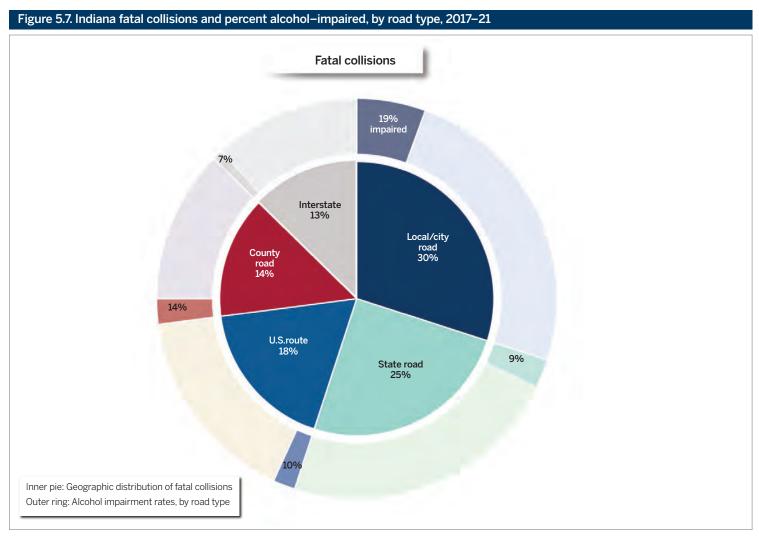
### Notes

- 1) Fatal/incapacitating injury rate is the percentage of all hourly injuries 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.



### Notes:

- See glossary for census locale definitions.
   Excludes cases where locale could not be determined.



Note: Includes only collisions where valid road class was reported.



# SPEED

SHEET VIEW OF

# **SPEED, 2021**

A collision is defined as speed-related in the Indiana ARIES database 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. In 2021, 17,470 speed-related collisions occurred in Indiana, a 16% increase from 2020 (Figure 6.1).

In 2021, 8% of all collisions and 28% of fatal collisions were speed-related (Table 6.1). Speed-related fatal collisions increased 11% between 2020 and 2021, from 207 to 229. Slightly more than half (51%) of speed-related collisions had "unsafe speed" listed as the primary factor or as a contributing factor. Forty-nine percent of speed-related collisions had "speed too fast for weather conditions" listed as a factor. Only 6% of these collisions were associated with the issuance of a speed-related citation. Fatal collisions associated with "speed too fast for weather conditions" and a speed-related citation increased in 2021 from 5-year lows in 2020. Fatal collisions associated with "unsafe speed" have increased since 2018 and were at a five-year high.

There were 26,814 persons involved in speed-related collisions in 2021, representing 8% of individuals involved in all collisions (Table 6.2). Of these individuals, 256 were killed, representing a 9% increase from 2020. Twenty-nine percent of all fatalities in Indiana collisions occurred in speed-related crashes. The rate of fatal injuries per 1,000 persons involved in speed-related collisions decreased to 9.5 per 1,000 from a five-year high of 10.3 per 1,000 in 2020 (Figure 6.2).

### Vehicle type

In 2021, 5% of vehicles involved in collisions were identified as speeding—a slightly lower rate than in 2020 and 2019 (Figure 6.3). Motorcycle operators remained the most likely to have been speeding at the time of collisions, representing 13% of all motorcycle crashes. Among vehicle types, occupants involved in speed-related collisions had a higher injury rate per 1,000 occupants (209) than occupants in non-speed-related collisions (116 per 1,000) (Figure 6.4). Occupants of motorcycles had the highest rates of injury per 1,000 occupants while speeding (836 per 1,000) when compared to other vehicle types. Occupants in buses, motorhomes, and school buses were more than three-and-a-half times as likely to be injured when speeding compared to the same vehicle types not speeding.

### Age and gender

Between 2017 and 2021, the relative proportion of speed-related crashes to all crashes decreased as driver age increased (Table 6.3). Among all drivers, young males were most likely to be speeding. In 2021, 11% of male drivers and 6% of female drivers ages 15 to 20 were speeding at the time of the collision, the highest rates for all age groups. In contrast, only 2% of males and 1% of female drivers ages 75 and over were speeding in collisions.

### Alcohol-impaired

The number of legally impaired drivers (with blood alcohol content of 0.08 g/dL or higher) involved in speed-related collisions fell consistently between 2017 and 2021 to a five-year low in 2021 (602)

(Figure 6.5). The proportion of drivers who were alcohol impaired and speeding relative to all drivers speeding decreased to 3.8% in 2021 from a five-year high of 5.1% in 2020. The proportion in 2021 was similar to 2018 (3.8%) and 2019 (3.7%), but less than in 2017 (4.4%) and 2020. Drivers who were speeding in a collision were more than three-and-a-half times as likely to be alcohol impaired (3.8%) as those who were not speeding (1.0%) (Table 6.4). Five percent of drivers ages 25 to 34 and ages 35 to 44 who were in speed-related crashes were also impaired, representing the highest rate of impairment among all age groups.

### **Restraint use**

Between 2017 and 2021, the occupants of passenger vehicles injured in speed-related collisions consistently had lower rates of restraint use than occupants involved in collisions that did not involve speeding (Figure 6.6). Additionally, the rate of restraint use among occupants involved in speeding-related collisions decreased as the severity of injury increased. In 2021, vehicle occupants who were killed in speed-related collisions were less than half as likely to be restrained than those who sustained nonfatal injuries (42% versus 86% restraint use).

### Month and time of day

Between 2017 and 2021, the highest incidence of speed-related collisions generally occurred during the winter months, December, January, and February (Table 6.5). In 2021, when considering the likelihood of speed involvement in collisions by hour, crashes generally peaked during the early morning hours between midnight and 2:59 a.m., declined steadily until the noon hour, and then increased steadily until the end of the day (Table 6.6). The patterns by hour and day of the week, however, were not as smooth.

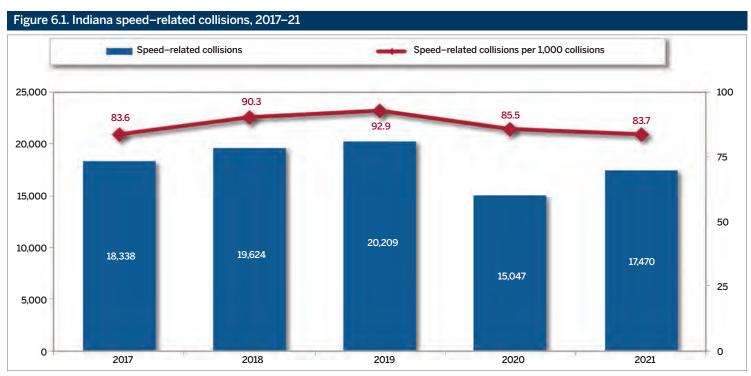
By day of the week, Sundays (10%), Saturdays (8%), and Mondays (8%) had the highest overall likelihood of speed-related collisions. Sundays also stand out as having elevated likelihoods of speed-related collisions throughout more of the hours of the day. For example, on Sundays, the proportion of speed-related collisions was higher than the other days for all hours except between midnight and 2:59 p.m. and the 8 a.m., 4 p.m., 6 p.m., and 9 p.m., hours.

### Locale and road class

The proportion of speed–related collisions to all collisions varied by census locale in 2021 (Figure 6.7). A higher proportion of collisions were speed–related in nonurban areas (suburban and exurban, 11%; rural 10%) than in urban areas (8%). In 2021, the proportion for fatal collisions was highest in urban areas (31%). The proportions were similar for rural (24%), exurban (24%), and suburban areas (27%). The share of speed–related fatal collisions on interstates, county roads, and U.S. highways were higher than the share of fatal collisions on those types of roads (Figure 6.8). The highest proportion of speed–related collisions (19%) was on interstate highways while the highest proportions for speed–related fatal collisions occurred on county roads (35%) and interstate highways (36%).

			Count of collision	IS		Annual rate	of change
Speed involvement criteria/collision severity	2017	2018	2019	2020	2021	2020-21	2017-21
Total collisions	219,320	217,287	217,603	175,936	208,680	18.6%	-1.2%
Fatal	848	795	746	812	829	2.1%	-0.6%
Nonfatal	34,227	32,412	31,214	26,325	28,985	10.1%	-4.1%
Property damage	184,245	184,080	185,643	148,799	178,866	20.2%	-0.7%
All speed-related collisions	18,338	19,624	20,209	15,047	17,470	16.1%	-1.2%
Fatal	190	162	190	207	229	10.6%	4.8%
Nonfatal	4,237	4,187	4,086	3,307	3,735	12.9%	-3.1%
Property damage	13,911	15,275	15,933	11,533	13,506	17.1%	-0.7%
Speed-related as % of total	8.4%	9.0%	9.3%	8.6%	8.4%	-2.1%	0.0%
Fatal	22.4%	20.4%	25.5%	25.5%	27.6%	8.4%	5.4%
Nonfatal	12.4%	12.9%	13.1%	12.6%	12.9%	2.6%	1.0%
Property damage	7.6%	8.3%	8.6%	7.8%	7.6%	-2.6%	0.0%
Speed too fast for weather conditions	9,820	11,478	12,082	6,953	8,546	22.9%	-3.4%
Fatal	31	34	29	25	30	20.0%	-0.8%
Nonfatal	1,669	1,866	1,793	1,100	1,295	17.7%	-6.1%
Property damage	8,120	9,578	10,260	5,828	7,221	23.9%	-2.9%
Unsafe speed	8,377	8,048	7,814	7,967	8,917	11.9%	1.6%
Fatal	162	130	162	184	208	13.0%	6.4%
Nonfatal	2,493	2,252	2,222	2,170	2,475	14.1%	-0.2%
Property damage	5,722	5,666	5,430	5,613	6,234	11.1%	2.2%
Speed-related citation	1,749	1,780	2,043	1,223	1,123	-8.2%	-10.5%
Fatal	10	12	11	5	6	20.0%	-12.0%
Nonfatal	591	559	512	352	282	-19.9%	-16.9%
Property damage	1,148	1,209	1,520	866	835	-3.6%	-7.7%

Note: Speed-related criteria categories are not mutally exclusive. All speed-related collisions may not equal total of individual categories.



Source: 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 April 8, 2022.

Table 6.2. Individuals involv	eu in muiana	collisions, by	speed involve	ement and inj	ury Status, 2	01/-21		
		Co	ount of individual	s			Annual rate	of chang
Speed involvement/injury status	2017	2018	2019	2020	2021	% 2021 total	2020-21	2017-
All individuals	358,137	352,430	350,929	275,832	340,390	100.0%	23.4%	-1.
Speed-related	28,961	30,832	31,365	22,773	26,814	100.0%	17.7%	-1.
Fatal	213	183	213	235	256	1.0%	8.9%	4
Nonfatal injury	6 422	C AEO	6 122	4 OE 2	E 426	20.20/	0.60/	1

Fatal	213	183	213	235	256	1.0%	8.9%	4.7%
Nonfatal injury	6,432	6,458	6,122	4,952	5,426	20.2%	9.6%	-4.2%
Not injured	22,316	24,191	25,030	17,586	21,132	78.8%	20.2%	-1.4%
Not speed-related	329,176	321,598	319,564	253,059	313,576	100.0%	23.9%	-1.2%
Fatal	712	697	593	665	641	0.2%	-3.6%	-2.6%
Nonfatal injury	44,484	41,843	40,211	33,999	37,261	11.9%	9.6%	-4.3%
Not injured	283,980	279,058	278,760	218,395	275,674	87.9%	26.2%	-0.7%
% Speed-related	8.1%	8.7%	8.9%	8.3%	7.9%	_	-4.6%	-0.7%
Fatal	23.0%	20.8%	26.4%	26.1%	28.5%	-	9.3%	5.5%
Nonfatal injury	12.6%	13.4%	13.2%	12.7%	12.7%	-	0.0%	0.2%
Not injured	7.3%	8.0%	8.2%	7.5%	7.1%	-	-4.5%	-0.6%

Note: Not injured status includes individuals involved in collisions reported as null values in the injury status code field. While reporting officers are instructed to enter all drivers in ARIES, passengers are only to be entered in the crash report if an injury occurs. Therefore, not injured counts should be interpreted with caution.

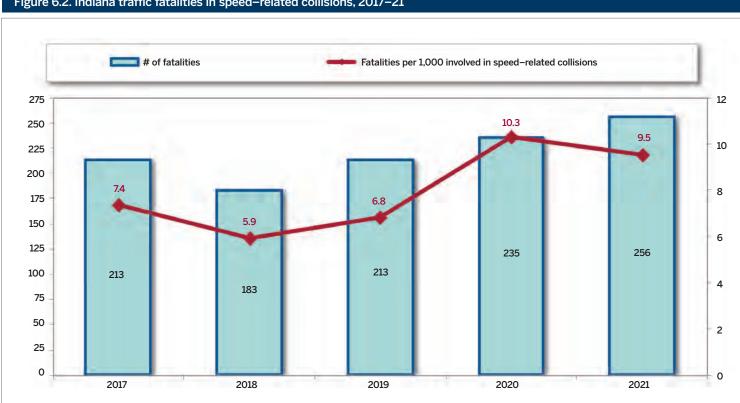
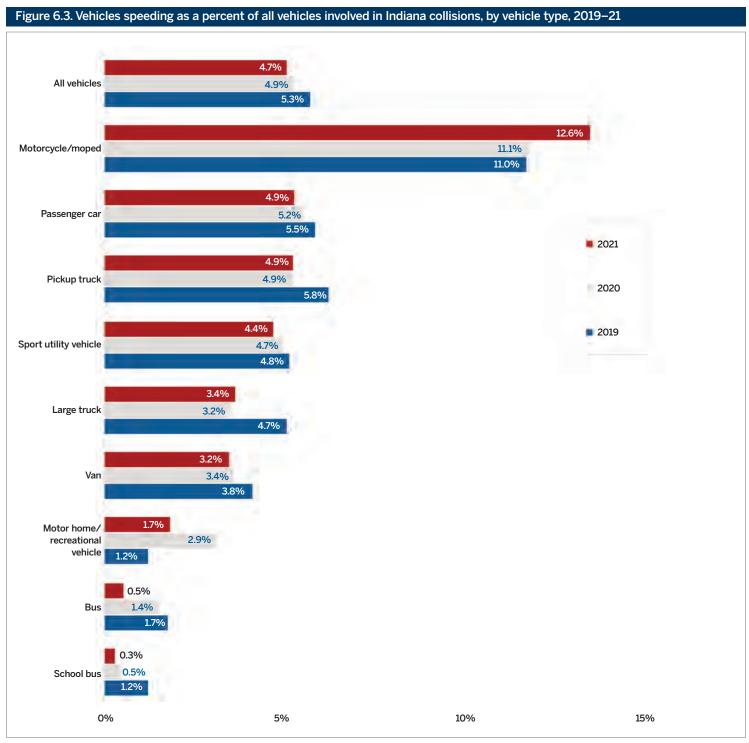
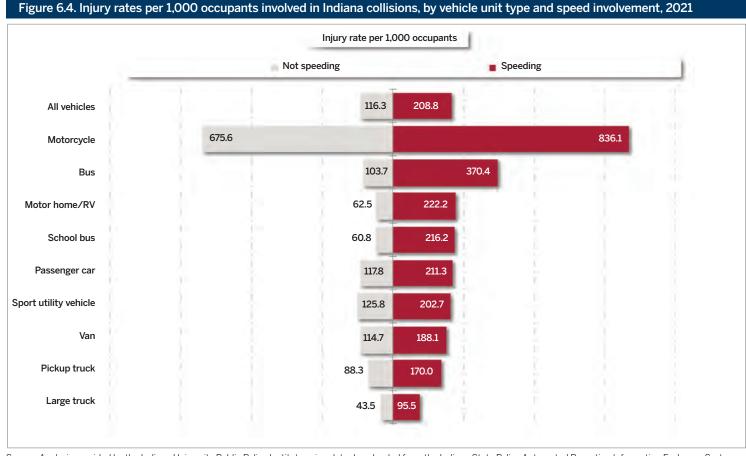


Figure 6.2. Indiana traffic fatalities in speed-related collisions, 2017-21

Source: 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 April 8, 2022.



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



### Notes:

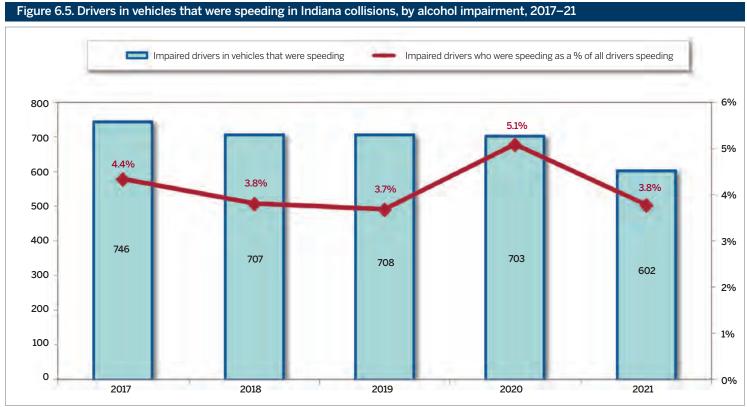
- 1) Injury includes fatal, incapacitating, non-incapacitating, possible, and other injury types.
- 2) Excludes vehicle types of animal-drawn vehicle (non-motor vehicle), farm vehicle, combination vehicle, pedestrian, bicycle, and unknown.

	20	17	20	18	20	19	20	20	20	)21
Age group	Female	Male								
15-20	7.5%	11.1%	8.0%	11.2%	7.9%	11.9%	6.9%	11.4%	6.3%	10.5%
21-24	6.3%	9.2%	6.8%	9.8%	7.1%	10.1%	5.9%	9.3%	6.0%	9.1%
25-34	4.6%	6.8%	5.4%	8.1%	5.2%	8.1%	4.9%	7.4%	4.7%	7.4%
35-44	3.7%	5.1%	3.8%	6.1%	4.1%	6.1%	3.6%	5.7%	2.9%	5.5%
45-54	2.7%	3.8%	3.0%	4.4%	2.9%	4.6%	2.7%	4.1%	2.4%	4.0%
55-64	2.1%	3.1%	2.3%	3.4%	2.5%	3.8%	2.0%	3.2%	1.9%	3.0%
65-74	1.7%	2.5%	1.7%	2.5%	2.0%	3.1%	1.5%	2.2%	1.3%	2.0%
75 +	1.7%	2.2%	1.5%	2.2%	1.5%	2.4%	1.5%	2.0%	1.3%	1.5%
ages	4.1%	5.8%	4.5%	6.4%	4.5%	6.6%	4.0%	6.1%	3.8%	5.9%

Source: 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 April 8, 2022.

### Notes

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



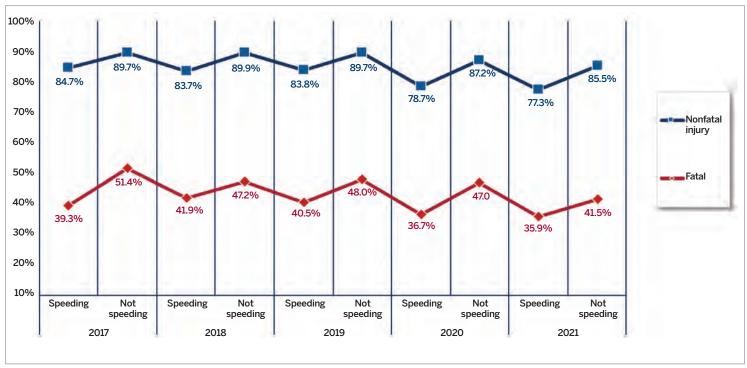
Note: Alcohol-impaired includes drivers with blood alcohol count (BAC) of 0.08 g/dL or higher.

		Not speeding			Speeding	
Age group	Non-impaired	Impaired	% impaired	Non-impaired	Impaired	% impaired
15-20	37,719	134	0.4%	3,482	43	1.2%
21-24	30,156	458	1.5%	2,447	111	4.3%
25-34	63,560	1,019	1.6%	4,106	219	5.1%
35-44	51,956	673	1.3%	2,304	112	4.6%
45-54	43,088	429	1.0%	1,448	64	4.2%
55-64	38,922	340	0.9%	994	45	4.3%
65-74	23,563	107	0.5%	408	7	1.7%
75+	12,143	23	0.2%	171	1	0.6%
otal	301,107	3,183	1.0%	15,360	602	3.8%

Source: 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 April 8, 2022.

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

Figure 6.6. Restraint use rates among passenger vehicle occupants involved in Indiana collisions, by speed involvement and injury status, 2017–21



Note: Data limited to drivers and injured vehicle occupants in vehicles where driver was reported to be speeding.

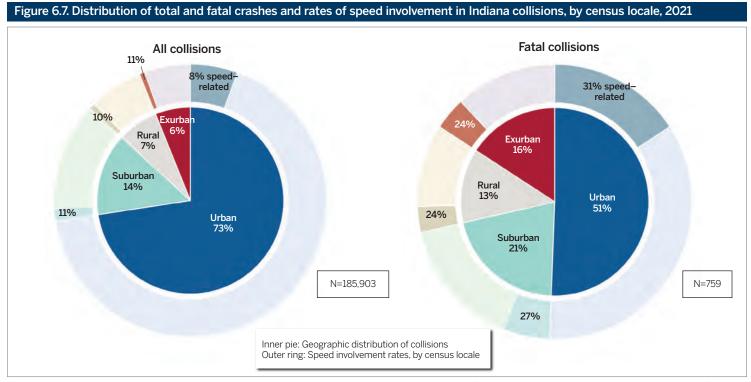
4			Total collisions	<b>;</b>			Speed-related collisions					
Month	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021		
Jan	17,277	20,788	19,459	15,787	15,687	2,478	4,350	4,418	1,529	2,600		
Feb	14,574	16,180	16,982	16,852	15,927	1,109	2,366	3,199	2,570	3,120		
Mar	16,970	16,982	15,967	11,816	14,556	1,682	1,864	1,208	818	872		
Apr	17,028	15,777	16,389	8,012	16,035	1,127	995	1,086	684	1,199		
May	19,457	18,423	18,331	12,251	17,417	1,215	1,055	1,067	973	1,167		
Jun	19,009	17,288	17,686	14,579	17,716	1,125	977	1,098	970	1,209		
Jul	17,157	17,270	17,655	15,451	17,532	1,020	1,042	974	1,057	1,117		
Aug	17,727	17,861	18,092	15,428	17,809	1,001	1,061	1,007	1,015	1,101		
Sep	17,962	17,751	17,526	15,208	17,700	1,041	1,056	938	987	1,078		
Oct	20,000	20,315	20,156	17,695	20,469	1,373	1,225	1,317	1,283	1,495		
Nov	20,081	20,157	20,542	16,898	19,703	1,193	1,944	1,945	1,245	1,081		
Dec	22,078	18,495	18,818	15,959	18,129	3,974	1,689	1,952	1,916	1,431		
otal	219,320	217,287	217,603	275,936	208,680	18,338	19,624	20,209	15,047	17,470		
ligh	Dec	Jan	Nov	Oct	Oct	Dec	Jan	Jan	Feb	Feb		
ow	Feb	Apr	Mar	Apr	Mar	Aug	Jun	Sep	Apr	Mar		

Source: 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 April 8, 2022.

Note: Color-scales are illustrated to show months from low to high for the entire 5-year period, 2017–21.

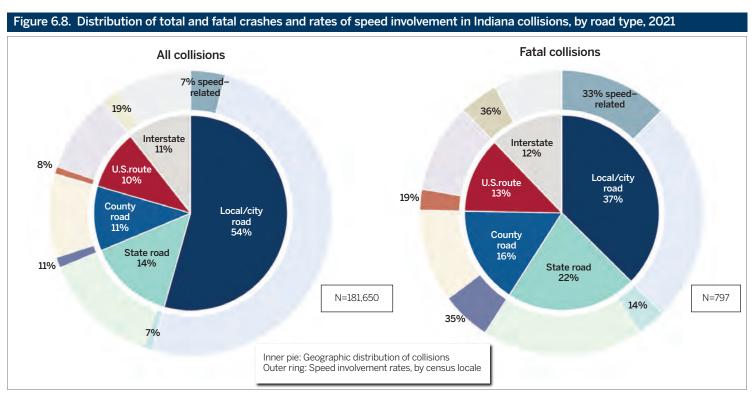
Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	% speed-relation by hour
12a.m.	12.8%	17.2%	10.6%	16.0%	12.0%	12.2%	10.4%	12.8%
1a.m.	13.1%	14.1%	14.0%	14.7%	10.9%	15.2%	12.7%	13.4%
2a.m.	13.9%	13.7%	10.5%	15.4%	13.9%	13.8%	17.4%	14.4%
3a.m.	14.9%	13.3%	10.0%	10.6%	12.6%	9.4%	12.6%	12.2%
4a.m.	15.9%	13.4%	7.8%	8.6%	11.3%	11.5%	8.9%	11.1%
5a.m.	10.5%	9.6%	5.7%	8.0%	9.8%	7.8%	9.7%	8.6%
6a.m.	12.6%	10.0%	5.2%	8.9%	9.3%	6.0%	10.2%	8.4%
7a.m.	12.3%	7.8%	5.3%	6.0%	7.1%	7.2%	9.6%	7.1%
8a.m.	12.5%	8.4%	5.3%	6.6%	6.2%	6.8%	12.5%	7.4%
9a.m.	13.7%	10.3%	6.9%	6.1%	7.3%	7.2%	6.7%	8.1%
10a.m.	11.6%	6.9%	6.0%	5.6%	6.2%	7.9%	5.8%	7.0%
11a.m.	8.2%	6.5%	4.5%	5.3%	4.7%	5.8%	5.8%	5.7%
12p.m.	6.9%	7.6%	6.5%	4.0%	5.2%	5.1%	6.0%	5.8%
1p.m.	7.6%	6.3%	6.9%	4.9%	6.5%	5.4%	6.1%	6.2%
2p.m.	8.1%	6.5%	7.9%	5.3%	5.7%	5.2%	6.8%	6.4%
3p.m.	8.0%	7.3%	6.2%	6.3%	7.0%	6.1%	6.5%	6.7%
4p.m.	7.5%	6.0%	5.4%	7.5%	7.7%	6.0%	5.8%	6.5%
5p.m.	9.0%	5.6%	4.9%	7.0%	7.1%	6.1%	7.5%	6.5%
6p.m.	6.9%	7.3%	6.5%	6.9%	6.6%	6.4%	7.5%	6.8%
7p.m.	8.7%	7.0%	7.0%	6.6%	7.3%	7.6%	8.6%	7.6%
8p.m.	12.1%	8.0%	7.2%	8.4%	8.2%	8.6%	7.4%	8.5%
9p.m.	9.5%	7.9%	8.8%	10.5%	9.3%	8.7%	8.3%	9.0%
10p.m.	13.4%	10.4%	12.4%	7.9%	12.1%	10.2%	10.2%	10.9%
11p.m.	14.1%	10.1%	13.9%	9.2%	11.5%	11.8%	11.8%	11.8%
speed- ated by day	10.1%	7.9%	6.7%	7.0%	7.4%	7.1%	8.1%	7.6%

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



### Notes:

- 1) See glossary for census locale definitions.
- 2) Excludes cases where locale could not be determined.



Source: 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 April 8, 2022.

Note: Includes only collisions where valid road class was reported.



# DATA SOURCES AND REFERENCES

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## **DATA SOURCES**

Data in this publication come from the following sources:

- Indiana State Police. Automated Reporting Information Exchange System (ARIES), current as of April 8, 2022.
- Indiana Bureau of Motor Vehicles, current as of May 25, 2022.
- Indiana Department of Transportation, County-level VMT (2020), current as of March 24, 2022.
- U.S. Census Bureau, Annual estimates of the resident population by single-year of age and sex for the United States and states (2020), provided by the Indiana Business Research Center, Indiana University.
- · U.S. Census Bureau, Population estimates for Indiana counties, 2017–21, provided by the Indiana Business Research Center, Indiana University.

## REFERENCES

Center for Road Safety. (2021). Indiana roadside observational survey of safety belt and motorcycle helmet use. Purdue University.

National Center for Statistics and Analysis. (2021). Seat belt use in 2021–Overall results (DOT HS 813 241). National Highway Traffic Safety Administration.

National Center for Statistics and Analysis. (2022, May). State alcohol-impaired-driving estimates, Traffic safety facts, 2020 data (DOT HS 813 301). National Highway Traffic Safety Administration (NHTSA).



# INDIANA STANDARD CRASH REPORT AND GLOSSARY

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

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Location					County	Township	City
Crash Date	Day of Wee	k	Crash Time		Date of Report	Latitude	Longitude
Weather Condition	Light Condit	ion			Locality	Inside Corporate Limits?	School Zone
Roadway Surface	Surface Cor	ndition			Roadway Classification		Train or Rail Equipment
Construction Zone	Construction	п Туре			Roadway Junction	Railroad Crossing #	Deer Deer
Time Notified	Time Arrived	Primary F	actor			Did this crash happen as a resu	alt of another incident?
Type of Crash	Other Location o	f Investigation		Investigati	on Photos taken	Total Estimate of all damage in	Crash:
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Assisting Officer							
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Indiana Officer's Standard Crash Report

Official copy obtained through buycrash.com

**End of Report** 

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## **GLOSSARY**

### **Aggressive Driving**

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

### **Alcohol-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 fatalities that happen in a crash that meets that criterion is deemed an alcohol-impaired fatality (NHTSA DOT HS 812 864, 2019, p. 1). By law, drivers in Indiana who have a BAC of at least 0.08 g/dL should receive—at minimum—a Class C misdemeanor (IC9-30-5-1). Indiana Code also says that drivers with BAC of at least 0.15 g/dL should receive a Class A misdemeanor (IC9-30-5-1). If the driver had a passenger under the age of 18 in the vehicle, they could face a Class D felony. This fact sheet does not explicitly consider these cases but does include them in summary statistics.

### Attributable/Attributablity

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

### **Blood Alcohol Concentration**

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

### Bus

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

### **Census-based Locale**

*Urban* is defined as Census 2010 Urban Areas, *suburban* as areas within 2.5 miles of urban boundaries, *exurban* as areas within 2.5 miles of suburban boundaries, and *rural* as areas beyond exurban boundaries (i.e., everything else).

### Cited/Citation

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

### **Combination Vehicle**

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

Commercial Vehicle

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

- 2. Bus: A motor vehicle designed to transport nine or more occupants.
- 3. Any Vehicle: Displaying a hazardous materials placard.

### **Contributing Circumstance**

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

### Collision/Crash

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

### Collision/Crash Severity

- 1. Fatal Crash: A police-reported crash involving a motor vehicle in transport on a trafficway in which at least one person dies within 30 days of the crash.
- 2. *Injury Crash:* A police-reported crash involving a motor vehicle in transport on a trafficway in which no one died but a least one person was reported to have: (1) an incapacitating injury; (2) a non-incapacitating injury; or (3) a possible, not visible injury.
- 3. Property Damage Only Crash: A police-reported crash involving a motor vehicle in transport on a trafficway in which no one involved in the crash suffered any injuries. Indiana statute states the estimated property damage must be \$1,000 or more.

### Dark (Lighted)

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

### Dark (Not lighted)

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

### Dav

From 6:00a to 5:59p.

### **Disregarding Traffic Signal**

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

### **Driver**

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

### **Ejection**

Refers to occupants being totally or partially thrown from the vehicle as a result of an impact or rollover.

### **Fatal Injury**

Any injury that results in death within a 30-day period after the crash occurred.

### **Fixed Object**

Stationary structures or substantial vegetation attached to the terrain. Examples include guardrail, bridge railing or abutments, trees, utility poles, ditches, culverts, and buildings.

### **Hazardous Materials**

Any substance or material which has been determined by the U.S. Department of Transportation, or other authorizing entity, to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Any motor vehicle transporting quantities of hazardous materials in quantities above the thresholds established by the USDOT, or other authorized entity, is required to display a hazardous materials placard.

### **Hazardous Materials Placard**

A sign that must be affixed to any motor vehicle transporting hazardous materials in quantities above the thresholds established by the USDOT, or other authorized entity. This placard identifies the hazard class division number, four-digit hazardous material identification number or name of the hazardous material being transported.

### **ICJ**

Indiana Criminal Justice Institute

### **Incapacitating Injury**

A nonfatal injury that prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred. Hospitalization is usually required. Examples are severe lacerations, broken limbs, skull fracture, crushed chest, internal injuries, etc. The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include *transported from scene for treatment*.

### Intersection

An area of roadway which is: (1) at a crossing or connection of two or more roadways not classified as a driveway; and (2) the area of the roadway measured less than 33 feet from the apex of two roadways at the curb or boundary line. Types of intersections noted on the Indiana Crash Report are: 1) T-intersections; 2) Y-intersections; 3) Four-way intersection; 4) Interchange; 5) Five points or more; 6) Ramp; and 7) Traffic circle/roundabout.

### **ISP**

Indiana State Police

### 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 over 10,000 pounds gross vehicle weight rating, including single unit trucks and truck tractors.

### **Licensed Drivers**

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

### **Light Trucks**

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

### Motorcycle

The category *motorcycle* includes the following:

- 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; and (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 Motor Driven Cycle Class A. 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 Motor Driven Cycle Class B. The term does not include an electric personal assistive mobility device.
- 4. ARIES includes two other *unit type* categories not defined by Indiana law (*motorized bicycle* and *moped*) that are also included in *motorcycles*.

### **Motor Vehicle in Transport**

A motor vehicle in motion on the trafficway or any other motor vehicle on the roadway, including stalled, disabled, or abandoned vehicles.

### Night

From 6:00p to 5:59a.

### Non-incapacitating Injury

An injury, other than a fatal or incapacitating injury, which is evident to the officer at the scene of the crash and may require medical treatment, although hospitalization is usually not required. Examples are abrasions, minor bleeding, and lacerations.

### Non-motorist

Any person who is not an occupant of a motor vehicle in transport and includes the following: (1) pedestrians, (2) pedalcyclists, and (3) persons riding in animal-drawn vehicles.

### **Not Injured**

Not injured status includes individuals involved in collisions reported as null values in the injury status code field. While reporting officers are instructed to enter all drivers in ARIES, passengers are only to be entered in the crash report if an injury occurs; therefore, not injured counts should be interpreted with caution.

### **Occupant**

Any person who is in or upon a motor vehicle in transport. Includes the driver, passengers, and persons riding on the exterior of a motor vehicle.

### Odds

Odds are calculated as the ratio of the count of an incident occurring to the count of the incident not occurring. For example, in 100 crashes, if there are 24 involving serious bodily injury, the odds of a serious bodily injury (SBI) collision = 24/76 = .32).

### **Odds ratio**

The ratio of the odds of an event occurring in one group to the odds of it occurring in another group. For example, if the odds of SBI for motorcycle riders and passenger car occupants is .21 and .01, respectively, the OR of motorcyclists compared to car occupants = .21/.01 = 19.2 (i.e., motorcyclists are 19.2 times more likely to experience an SBI than are car occupants).

### **Passenger**

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

### **Passenger Car**

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

### **Passenger Vehicles**

Passenger vehicles are defined as passenger cars, pickup trucks, SUVs, and vans.

### **Pedalcyclist**

A person on a bicycle or vehicle that is powered solely by pedals.

### **Pedestrian**

Any person walking or not in or upon a motor vehicle or other vehicle.

### Pickup Truck

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

### Possible Injury

Any injury reported or claimed which is not visible. Example: the complaint of back or neck pain (normally included in non-incapacitating injury category).

### **Primary Factor**

The single factor which the investigating officer believes to be the main or primary factor which contributed to the collision's occurrence. Each collision may have only one primary factor.

Driver: Unsafe actions include primary factors of following too closely, failure to yield right of way, unsafe backing, disregard signal/reg sign, improper turning, speed too fast for weather conditions, unsafe lane

movement, improper lane usage, unsafe speed, left of center, improper passing and wrong way on one way.

Driver: Loss of Control includes primary factors of ran off road right, ran off road left and overcorrecting/oversteering.

Driver: Distraction includes primary factors of driver distracted (explained in narrative), cell phone usage, other telematics in use and passenger distraction.

Driver: Cognitive Impairment includes primary factors of driver asleep or fatigued, driver illness, alcoholic beverages, prescription drugs, and illegal drugs.

Environmental includes primary factors of animal on roadway, roadway surface condition, view obstructed, other (explained in narrative)-environment, obstruction not marked, severe crosswinds, traffic control problem, holes/ruts in surface, glare, lane marking obscured, road under construction and shoulder defective.

Vehicle-related includes primary factors of brake failure or defective, other (explained in narrative)-vehicle, tire failure or defective, insecure/leaky load, steering failure, accelerator failure or defective, engine failure or defective, oversize/overweight load, headlight defective or not on, tow hitch failure and other lights defective.

All other includes primary factors of other (explained in narrative)-driver, pedestrian action, not a factor-driver, not a factor-vehicle, violation of license restriction and not a factor-environment.

Unknown includes primary factors of unknown and invalid.

### **Property Damage Collision**

A police-reported crash involving a motor vehicle in transport on a trafficway in which no one involved in the crash suffered any injuries but at least one vehicle or property was damaged.

### **Registered Vehicles**

The annual count of registered vehicles in a given location (e.g., county, state, or 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 percent of collisions involving speeding result in a fatality and one percent of collisions not involving speeding result in a fatality, the relative risk of a fatality when speed is involved equals two (2 percent/1 percent); that is, collisions that involve speeding are two times more likely to result in a fatality than those that do not. Relative risk is often used to measure the risk of a fatal injury but can be used to measure the risk of any type of injury.

### **Restraint Use**

The occupant's use of available vehicle restraints including lap belt, shoulder belt, or automatic belt.

### Roadway

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

### Rollover

Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. Includes rollovers occurring as a first harmful event or subsequent event.

### **Seating Position**

The location of the occupants in the vehicle. More than one can be assigned the same seat position; however, this is allowed only when a person is sitting on someone's lap.

### Semi-trailer

A trailer, other than a pole trailer, designed for carrying property and so constructed that part of its weight rest upon or is carried by the power unit.

### **Single-unit Truck**

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

### **Speed-related**

A collision is identified as speed-related if any one of the following conditions is met: (1) unsafe speed or speed too fast for weather conditions is listed as the primary or contributing factor of the collision; (2) a vehicle driver is issued a speeding citation.

### **Sport Utility Vehicle (SUV)**

A multi-purpose motor vehicle designed for carrying fewer than ten persons, which is constructed on a truck chassis or with special features for occasional off-road operation, other than a pickup truck. These vehicles are generally four-wheel-drive (4x4) and have increased ground clearance, and a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

### Tractor (Semi)

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

### **Traffic Circle/Roundabout**

An intersection of roads where vehicles must travel around a circle to continue on the same road or to connect to an intersecting road.

### **Traffic Control Signal**

A red/green/yellow and/or a flashing signal.

### Unit

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

### **Unknown Injury**

Injuries reported on the *Indiana Crash Report* as 1) *refused* (treatment), 2) *unknown*, 3) *not reported*, and 4) invalid codes.

### **Unsafe Backing**

Backing increases the risk for crash because it is much more difficult to see obstacles behind you and requires more space to maneuver. Common unsafe backing actions include: *improper body position, speed too fast, failure to yield and determine the path of travel is clear, failure to look back during the whole maneuver until the vehicle is completely stopped,* and *incorrect steering*.

### Van

A motor vehicle consisting primarily of a transport device that has a gross vehicle weight rating of 10,000 pounds or less and is basically a "box on wheels" that is identifiable by its enclosed passenger and/or cargo area, step-up floor, and relatively short (or nonexistent) hood. Examples are passenger vans, cargo or delivery vans, and van-based mini-motor homes.

### **Vehicle Miles Traveled**

The annual vehicle distance traveled in miles (VMT).

### Weekday

From 6:00 a.m. Monday to 5:59 p.m. Friday.

### Weekend

From 6:00 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 on the vehicles in a mobile maintenance activity) that mark the beginning and end of a construction, maintenance, or utility work activity.

It extends from the first warning sign, signal, or flashing lights to the END ROAD WORK sign or the last traffic control device pertinent for that work activity.

Work zones also include roadway sections where there is ongoing, moving (mobile) work activity such as lane line painting or roadside mowing only if the beginning of the ongoing, moving (mobile) work activity is designated by warning signs or signals.

### **Young Driver**

A driver of a motor vehicle whose age is between the ages of 15 and 20 years old.

