

# INDIANA CRASH FACTS



# 2008



## **INDIANA TRAFFIC SAFETY QUICK FACTS - 2008**

- 205,451 traffic collisions resulting in injury or property damage occurred, a 0.2 percent increase from 2007.
- 815 people were killed in 722 fatal traffic collisions.
- 48,837 people were known to have suffered incapacitating, non-incapacitating, or possible injuries in traffic collisions.
- 11 percent (22,819) of all collisions were speed-related, a 23 percent increase from 2007.
- 26 percent (188) of fatal collisions were speed-related.
- 4.6 percent (9,411) of all collisions were alcohol-related.
- 30.2 percent (218) of fatal collisions were alcohol-related, an increase of 1.3 percentage points from 2007 (28.9 percent).
- 246 people were killed in alcohol-related collisions; 225 people were killed in speed-related collisions.
- 35.4 percent of all collisions occurred in rural areas; 63.3 percent of fatal collisions occurred in rural areas.
- December had the highest frequency of collisions among all months (24,220, or 11.8 percent of all collisions in 2008).
- The 16 to 17 year old age group had the highest rate of drivers killed in 2008 (7.8 per 10,000 licensed drivers).
- 76 non-motorists were killed in collisions in 2008 (60 pedestrians and 16 pedalcyclists).
- 44 percent of persons killed in motor vehicle collisions were known to be restrained.\*
- There were 354,655 vehicles involved in collisions in 2008, a 0.5 percent decrease from 2007.
- The number of registered vehicles in Indiana decreased 1.6 percent from 6,482,078 in 2007 to 6,376,713 in 2008.
- There were 4,940,585 licensed drivers in Indiana in 2008.
- In 2008, the economic costs of motor vehicle crashes in Indiana exceeded \$4.6 billion.

\*excludes bicycles, pedestrians, farm vehicles, motorcycles, and mopeds.

Source: Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

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

The *Indiana Officer's Standard Crash Report*, completed by local and state law enforcement officers, contains over 200 data items for each collision reported. These include the date, time and location of the collision, the types of vehicle(s) involved, a description of the events prior to the collision, conditions at the time of the collision, as well as information on the driver and other passengers, pedestrians, and/or pedalcyclists 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.

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

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

## NOTES:

**In order to minimize misinterpretation of the data presented, please take note of the definitions provided in the glossary.**

**Data discrepancies may exist between this report and previous traffic safety publications. These differences can be attributed to updates to the ARIES database that have occurred since the original date of publication.**

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Cover design is a choropleth map of 2008 estimated costs per capita of Indiana collisions by county.



September 21, 2009

Dear Traffic Safety Advocates,

The Traffic Safety Division (TSD) of the Indiana Criminal Justice Institute (ICJI) is pleased to announce that Indiana has seen a reduction in roadway fatalities for five consecutive years. The TSD continues to build on previous accomplishments and relies on data to drive our focus and policy. In the past year, a new focus has been initiated to move the TSD from program *management* to program *development*. This change in philosophy and approach is placing an emphasis for the success and failure of traffic safety initiatives more directly into the hands of the local grantees. The idea is that all communities in Indiana have their own traffic safety issues and ways of addressing them. By allowing local communities to come up with local solutions to their particular traffic safety problems, we are empowering them to get more involved in taking ownership in addressing their particular traffic safety issues.

Building on this philosophy the results have been impressive:

- Seat belt use has increased from 81.2 percent in 2005 to 91.2 percent in 2008
- Impaired driving fatalities are down from 293 in 2005 to 246 in 2008
- Serious bodily injury crashes have fallen from 3,823 in 2005 to 3,379 in 2008

Indiana has the distinction as the *Crossroads of America*; as such, the safety of Hoosiers and those traveling on our roadways is a priority for the state. Our sincerest thanks and praise to those who have made traffic safety a priority in Indiana.

Moving forward, we would like to express our gratitude to the many traffic safety partners at the local, county, state and federal levels for their ongoing support and dedication to traffic safety programs and initiatives in Indiana. We hope that this latest version of *Indiana Crash Facts* serves as a guide for you in making Indiana a safer and healthier place to live.

Sincerely,

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Dear Fellow Hoosiers,

As Chairman of the Governor's Council on Impaired and Dangerous Driving (Council), I am proud to be part of an initiative that brings together such a diverse group of individuals who strive to fulfill the Council's mission of reducing death and injuries on Indiana's roadways. The Council continues to work with our partners to identify the top safety needs of the state through the application of action plans, strategies, projects and policies to improve safety on our roadways.

The Council realizes that the impact from a traffic crash not only affects those directly involved, it affects us all. It is estimated that in 2008, the medical, property and productivity losses to Indiana due to crashes topped \$3.7 billion, a huge drain on our economy. To continue our efforts at preventing crashes, the Council allocated \$8.5 million in grants to over 250 law enforcement agencies across the state in 2008 to support additional traffic safety enforcement. In total in 2008, over \$14 million was allocated toward research, media, program management and law enforcement for the advancement of traffic safety in Indiana. With reductions in alcohol-related crashes and nearly 500,000 additional Hoosiers buckling up over the past two years, fatalities and injuries continue to fall.

The Council is working harder than ever to help address our traffic safety challenges and ensure that resources are allocated where the need is greatest and where life-saving results can be achieved. As Chairman of the Governor's Council on Impaired and Dangerous Driving, I am proud of the Traffic Safety Division and their partners for their continued work in addressing roadway safety in Indiana. I look forward to continuing our progress in making Hoosier roadways even safer in the years to come.

Sincerely,

Curtis T. Hill, Jr., Chairman  
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The Governor's Council on Impaired and Dangerous Driving, a division of the Indiana Criminal Justice Institute, serves as the public opinion catalyst and the implementing body for statewide action to reduce death and injury on Indiana roadways. The Council provides grant funding, training, coordination and ongoing support to state and local traffic safety advocates.

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# PROBLEM IDENTIFICATION



## PROBLEM IDENTIFICATION, 2008

The mission of the Governor's Council on Impaired and Dangerous Driving (Governor's Council), a division of the Indiana Criminal Justice Institute (ICJI), is to reduce death, injury, property damage, and economic cost associated with traffic crashes on Indiana's roadways. The Traffic Safety Division (TSD) within ICJI, in conjunction with the Governor's Council, developed a set of benchmarks as part of the Highway Safety Plan for fiscal year 2010 to assess the state of traffic safety in Indiana. These benchmarks correspond to priority program areas established by the National Highway Traffic Safety

Administration (NHTSA), targeting the occurrence of fatal collisions as they relate to alcohol involvement, safety belt usage, young drivers, motorcycle safety, dangerous driving, children, and pedestrians. Within each area, ICJI has established specific goals and performance measures that relate to the occurrence of collisions and their impact on Indiana. The content of the *Traffic Safety Fact Sheets* series (produced in July to August for each year) is geared toward these areas, providing analytical context and serving as a resource for policy decision making. See the *Indiana Strategic Highway Safety Plan* for more information.<sup>1</sup>

*NOTE: Short-term and long-term goals discussed in subsequent sections are taken from the Indiana Strategic Highway Safety Plan 2010. This document uses data from the 2008 Fact Sheets series produced by the Center for Criminal Justice Research. These publications, including this Crash Book, were produced using the collision dataset current as of March 1, 2009. Alcohol-related data were extracted as of May 5, 2009. Discrepancies between figures presented in previous year Crash Books are due to updates that have occurred in the collision dataset since the date of these publications.*

### Fatalities

#### Short-term goals

- Reduce the number of traffic fatalities from 815 in 2008 to 789 in 2010
- Reduce the rate of fatalities per 100,000 from 12.78 in 2008 to 12.29 in 2010
- Reduce fatalities per 100M vehicle miles travelled (VMT) from 1.19 in 2008 to 1.00 in 2010 (not shown)

#### Long-term goals

- Reduce the number of traffic fatalities to 766 by 2012

- Reduce the rate of traffic fatalities per 100,000 to 12.01 by 2012
- Reduce fatalities per 100MVMT to 1.00 in 2012

#### Context

Traffic fatalities decreased 9.2 percent from 2007 to 2008 and 2.1 percent on average annually since 1999. Fatalities per 100,000 resident citizens have decreased 2.7 percent on average annually since 1999 in Indiana, but have been higher than the United States rate since 2004. The Indiana fatality rate was at a ten-year low in 2008.

<sup>1</sup>State of Indiana *Strategic Highway Safety Plan*, Federal Fiscal Year 2010, Indiana Criminal Justice Institute. *Pending publication.*

**Figure 1. Indiana traffic fatalities, 1999-2008**



**Sources:**

Indiana fatalities, 1999-2002  
 Indiana fatalities, 2003-2008  
 Indiana population, 1999

Indiana population, 2000-2008

US fatality rate

Fatality Analysis Reporting System (FARS), <http://www-fars.nhtsa.dot.gov/Trends/TrendsGeneral.aspx>  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Table CO-EST2001-12-00 - *Time Series of Intercensal State Population Estimates*: April 1, 1990 to April 1, 2000; Population Division, U.S. Census Bureau; Release Date: 4/11/2002  
 Table NST-EST2008-01 - *Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico*: April 1, 2000 to July 1, 2007; Population Division, U.S. Census Bureau; Release Date: 12/22/2008  
 Fatality Analysis Reporting System (FARS), <http://www-fars.nhtsa.dot.gov/Trends/TrendsGeneral.aspx>

**Alcohol**

**Short-term goals**

- Reduce the number of alcohol-related fatalities from 246 in 2008 to 238 in 2010
- Reduce the percent of driver fatalities in collisions with BAC of 0.08 or higher from 21.5 percent in 2008 to 20.7 percent in 2010
- Reduce the rate of fatalities with BAC of 0.08 or higher per 100mVMT from 0.250 in 2008 to 0.245 in 2010 (not shown)
- Reduce the number of fatalities involving a driver or motorcycle operator with BAC of 0.08 or higher from 172 in 2008 to 169 in 2010

**Long-term goals**

- Reduce the number of alcohol-related fatalities to 231 in 2012
- Reduce the percent of fatalities in collisions with BAC of 0.08 or higher to 19.9 percent in 2012

- Reduce the rate of fatalities with BAC of 0.08 or higher per 100mVMT to 0.235 in 2012
- Reduce the number of fatalities involving a driver or motorcycle operator with BAC of 0.08 or higher to 162 in 2012

**NHTSA national goal**

- Reduce the rate of fatalities per 100k population in highest BAC (0.08+) from 0.49 in 2007 to 0.46 by 2010

**Context**

Alcohol-related fatal collisions decreased by 15 from 2007 to 2008, continuing a three-year decline. On average since 2004, fatal collisions involving alcohol have decreased 4.3 percent annually. Per 100 million vehicle miles travelled, alcohol-related fatalities have decreased 1.4 percent on average since 2004. In 2008, 119 of 554 drivers (21.5 percent) killed in traffic collisions had a blood alcohol content (BAC) result of 0.08 grams per deciliter or greater. As a proportion of all individuals involved in collisions with an impaired driver, 3.5 percent were killed (an increase of 0.3 percentage points).

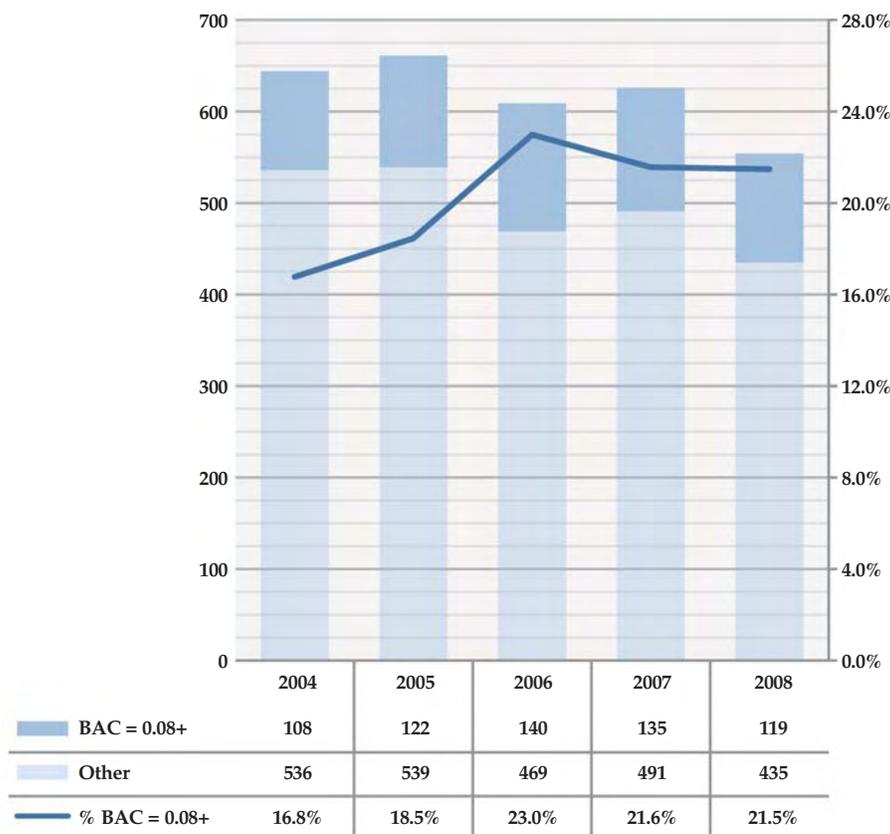
**Table 1. Indiana fatal collisions and fatalities, by alcohol involvement, 2004-2008**

	2004	2005	2006	2007	2008	Change ('07-'08)	Average annual % change
VMT (millions)	74,539	74,252	74,173	74,092	68,690	-5,402	-2.0%
Fatal collisions	857	855	817	804	722	-82	-4.1%
Alcohol-related	260	262	250	233	218	-15	-4.3%
% Alcohol-related	30.3%	30.6%	30.6%	29.0%	30.2%	1.2	-0.1%
Per 100mVMT	0.35	0.35	0.34	0.31	0.32	0.00	-2.3%
Fatalities	947	938	899	898	815	-83	-3.6%
Alcohol-related	284	293	274	254	246	-8	-3.4%
% Alcohol-related	30.0%	31.2%	30.5%	28.3%	30.2%	1.9	0.3%
Per 100mVMT	0.38	0.39	0.37	0.34	0.36	0.02	-1.4%

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009  
 Indiana Department of Transportation, as of April 15, 2009

**Figure 2. Drivers killed in Indiana traffic collisions, by blood alcohol content (BAC) results, 2004-2008**



**Notes:**

BAC = 0.08+ includes drivers with BAC = 0.08 - 0.59 g/dL.

Other includes drivers with no BAC result reported, BAC < 0.08, and invalid BAC results (BAC > 0.59).

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

**Table 2. Individuals involved in traffic collisions with an impaired driver, by person type and injury status, 2004-2008**

	2004	2005	2006	2007	2008	Change ('07-'08)
<b>Fatal</b>	<b>163</b>	<b>199</b>	<b>198</b>	<b>186</b>	<b>172</b>	<b>-14</b>
Driver, impaired	108	122	140	135	119	-16
Driver, not impaired	9	23	13	10	12	2
Driver, TOTAL	117	145	153	145	131	-14
Vehicle passenger	41	51	41	38	34	-4
Non-motorist	5	3	4	3	7	4
<b>Non-fatal injury / Not injured</b>	<b>6,400</b>	<b>7,503</b>	<b>6,769</b>	<b>5,759</b>	<b>4,775</b>	<b>-984</b>
Driver, impaired	4,113	4,913	4,583	3,876	3,284	-592
Driver, not impaired	1,650	1,927	1,601	1,354	1,099	-255
Driver, TOTAL	5,763	6,840	6,184	5,230	4,383	-847
Vehicle passenger	594	629	547	508	370	-138
Non-motorist	43	34	38	21	22	1
<b>% Fatal</b>	<b>2.5%</b>	<b>2.6%</b>	<b>2.8%</b>	<b>3.1%</b>	<b>3.5%</b>	<b>0.3</b>
Driver, impaired	2.6%	2.4%	3.0%	3.4%	3.5%	0.1
Driver, not impaired	0.5%	1.2%	0.8%	0.7%	1.1%	0.3
Driver, TOTAL	2.0%	2.1%	2.4%	2.7%	2.9%	0.2
Vehicle passenger	6.5%	7.5%	7.0%	7.0%	8.4%	1.5
Non-motorist	10.4%	8.1%	9.5%	12.5%	24.1%	11.6

**Note:**

Impaired driver defined as a driver with BAC = 0.08 - 0.59 g/dL.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

**Safety belt usage**

**Short-term goals**

- Decrease the number of unrestrained passenger vehicle fatalities from 267 in 2008 to 256 in 2010
- Increase the observed seat belt usage rate for all vehicles from 91.3 percent in December of 2008 (not shown in exhibits) to 94.8 percent in 2010
- Increase the observed seat belt usage rate for pickup truck occupants from 80.5 percent in December of 2008<sup>2</sup> (not shown in exhibits) to 86.9 percent in 2010

**Long-term goals**

- Decrease the number of unrestrained passenger vehicle fatalities to 251 in 2012
- Increase the observed seat belt usage rate for all vehicles to 96.3 percent in 2012
- Increase the observed seat belt usage rate for pickup truck occupants to 88.6 percent in 2012

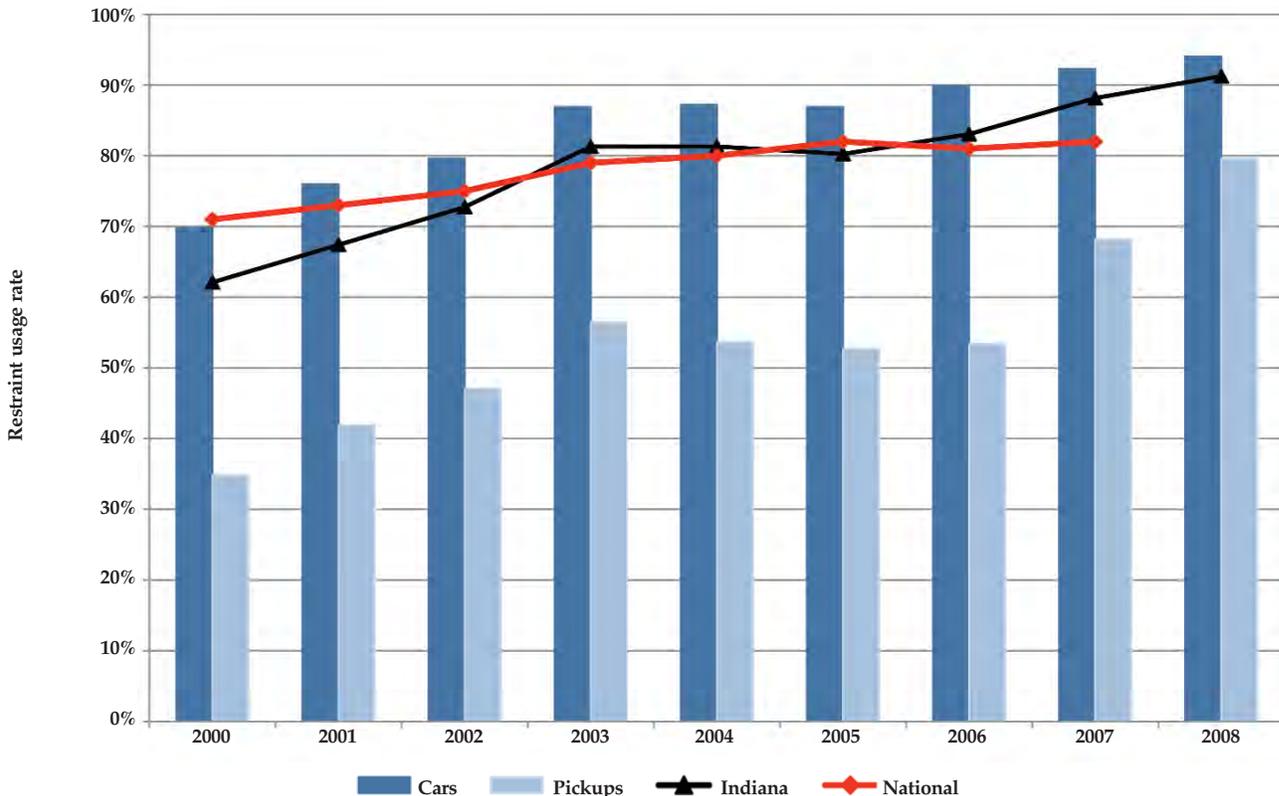
**NHTSA national goal**

- Increase seat belt use to 84 percent in 2010
- Increase child passenger restraint to 87 percent for the 0-7 age group in 2010

**Context**

Since 2004, restraint use has generally increased, both in observational surveys and among individuals involved in traffic collisions. Observed restraint usage rates continue to rise among pickup truck occupants (from 68.2 percent in 2007 to 79.6 percent in 2008), since the passage of HB 1237 that removed the pickup truck occupant seat belt exemption, but remain considerably lower than rates among other passenger vehicle occupants. Observed restraint use among Indiana passenger car occupants reached an all time high of 94 percent in 2008. The number of passenger vehicle occupants killed in collisions that were unrestrained decreased 4.6 percent on average each year since 2004.

**Figure 3: Observed seat belt use rates in passenger vehicles, 2000-2008**



**Notes:**

Indiana data represent the average annual rates of observed restraint use among all Indiana passenger vehicle occupants in a study conducted by ICJI twice per year. Car and pickup truck restraint usage rates are specific to Indiana only.

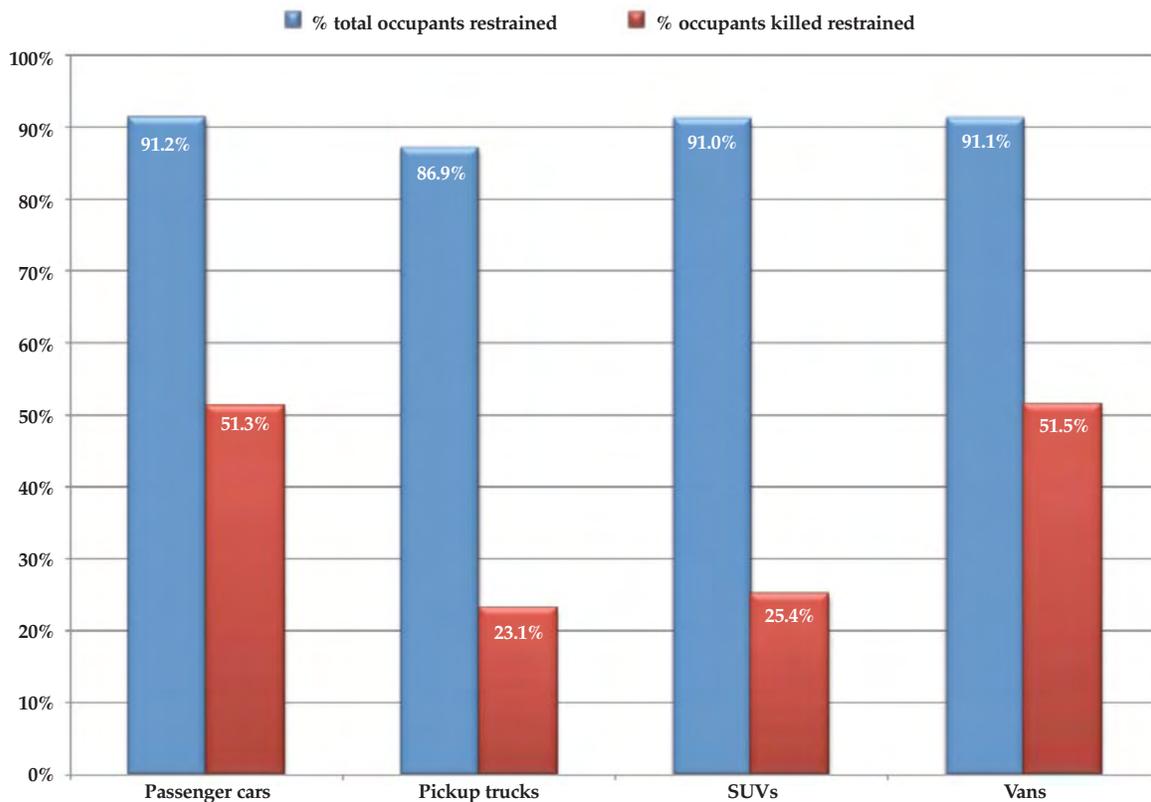
National data represent the rates of observed restraint use among all passenger vehicle occupants. National data were not available for 2008. Passenger vehicles are defined as passenger cars, pickup trucks, SUVs, and vans.

**Sources:**

Indiana: Indiana Criminal Justice Institute (*Observational Seatbelt Use Survey*), January 2009  
 National: National Center for Statistics and Analysis, National Highway Traffic Safety Administration, *National Occupant Protection Use Survey*, 2007

<sup>2</sup>Indiana Criminal Justice Institute (*Observational Seatbelt Use Survey*), January 2009.

Figure 4: Restraint use rates among Indiana passenger vehicle occupants involved in collisions, by vehicle type, 2008



**Notes:**

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

Restraint use rates are based on injury totals that include individuals reported to have an unknown or invalid safety equipment type.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Table 3. Restraint use among passenger vehicle occupants killed in collisions in Indiana, 2004-2008**

Vehicle type/ restraint use	2004	2005	2006	2007	2008	Change ('07-'08)	Average annual % change
<b>Fatalities</b>							
<b>Passenger car</b>	<b>465</b>	<b>410</b>	<b>405</b>	<b>374</b>	<b>396</b>	<b>22</b>	<b>-3.7%</b>
Restrained	230	207	198	201	203	2	-3.0%
Unrestrained	178	155	158	134	153	19	-3.0%
Unknown	57	48	49	39	40	1	-7.9%
<b>Pickup truck</b>	<b>117</b>	<b>165</b>	<b>118</b>	<b>139</b>	<b>91</b>	<b>-48</b>	<b>-1.0%</b>
Restrained	21	32	21	39	21	-18	14.4%
Unrestrained	82	110	78	79	56	-23	-5.7%
Unknown	14	23	19	21	14	-7	6.0%
<b>Van</b>	<b>52</b>	<b>54</b>	<b>43</b>	<b>57</b>	<b>33</b>	<b>-24</b>	<b>-6.5%</b>
Restrained	20	27	17	33	17	-16	10.9%
Unrestrained	20	23	18	19	14	-5	-6.9%
Unknown	12	4	8	5	2	-3	-16.0%
<b>SUV</b>	<b>78</b>	<b>82</b>	<b>90</b>	<b>100</b>	<b>68</b>	<b>-32</b>	<b>-1.5%</b>
Restrained	21	30	25	22	17	-5	-2.1%
Unrestrained	44	46	54	60	45	-15	2.0%
Unknown	13	6	11	18	6	-12	6.6%
<b>All passenger vehicles</b>	<b>712</b>	<b>711</b>	<b>656</b>	<b>670</b>	<b>588</b>	<b>-82</b>	<b>-4.5%</b>
Restrained	292	296	261	295	258	-37	-2.5%
Unrestrained	324	334	308	292	268	-24	-4.5%
Unknown	96	81	87	83	62	-21	-9.5%
<b>Restraint use rates</b>							
<b>Passenger car</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>0.0%</b>	<b>--</b>
Restrained	49.5%	50.5%	48.9%	53.7%	51.3%	-2.5%	1.1%
Unrestrained	38.3%	37.8%	39.0%	35.8%	38.6%	2.8%	0.4%
Unknown	12.3%	11.7%	12.1%	10.4%	10.1%	-0.3%	-4.5%
<b>Pickup truck</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>0.0%</b>	<b>--</b>
Restrained	17.9%	19.4%	17.8%	28.1%	23.1%	-5.0%	9.9%
Unrestrained	70.1%	66.7%	66.1%	56.8%	61.5%	4.7%	-2.9%
Unknown	12.0%	13.9%	16.1%	15.1%	15.4%	0.3%	6.9%
<b>Van</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>0.0%</b>	<b>--</b>
Restrained	38.5%	50.0%	39.5%	57.9%	51.5%	-6.4%	11.1%
Unrestrained	38.5%	42.6%	41.9%	33.3%	42.4%	9.1%	4.0%
Unknown	23.1%	7.4%	18.6%	8.8%	6.1%	-2.7%	-0.1%
<b>SUV</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>0.0%</b>	<b>--</b>
Restrained	26.9%	36.6%	27.8%	22.0%	25.4%	3.4%	1.6%
Unrestrained	56.4%	56.1%	60.0%	60.0%	65.7%	5.7%	4.0%
Unknown	16.7%	7.3%	12.2%	18.0%	9.0%	-9.0%	2.0%
<b>All passenger vehicles</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>0.0%</b>	<b>--</b>
Restrained	41.0%	41.6%	39.8%	44.0%	44.0%	-0.1%	1.9%
Unrestrained	45.5%	47.0%	47.0%	43.6%	45.5%	1.9%	0.1%
Unknown	13.5%	11.4%	13.3%	12.4%	10.6%	-1.8%	-5.1%

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

**Source:**  
Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2009

**Young Drivers (15 to 20 years old)**

**Short-term goals**

- Decrease the number of fatalities that occurred in collisions involving drivers ages 15 to 20 from 157 in 2008 to 154 in 2010

**Long-term goals**

- Decrease the number of fatalities that occurred in collisions involving drivers ages 15 to 20 to 148 in 2012

**Context**

The incidence of young drivers involved in fatal collisions decreased from 2007 to 2008 by 9 (6 percent) and 8.4 percent on average since 2004. Within this age group, the incidence of 16 year-olds involved in fatal collisions increased by 7 (43.8 percent) in 2008. Per 10,000 licensed drivers, this age group (15 – 20) had a fatal collision involvement rate of 4.9. Sixteen and seventeen year-olds had the highest fatal collision involvement rates (32.7 and 14.3 per 10,000 licensed drivers, respectively). In 2008, 42.7 percent of young drivers killed in traffic collisions were not restrained. Within the young driver age group, non-restraint use rates were highest among 18 year-olds (63.6 percent) and 20 year-olds (50 percent).

**Table 4. Drivers involved in fatal collisions, by age group, 2004-2008**

Age	2004	2005	2006	2007	2008	Change ('07-'08)	Average annual % change	2008 licensed drivers	Per 10,000 licensed
15-20	207	165	179	151	142	-9	-8.4%	291,605	4.9
15	3	1	0	0	1	1	n/a	--	--
16	47	22	33	16	23	7	-2.7%	7,041	32.7
17	33	37	32	33	25	-8	-5.6%	17,452	14.3
18	51	31	39	39	32	-7	-7.8%	64,443	5.0
19	29	41	38	38	32	-6	4.6%	95,242	3.4
20	44	33	37	25	29	4	-7.3%	107,427	2.7
21-24	140	159	126	105	105	0	-6.0%	392,919	2.7
25-34	260	257	232	232	215	-17	-4.6%	870,522	2.5
35-44	233	222	232	221	197	-24	-4.0%	899,250	2.2
45-54	208	227	205	228	221	-7	1.9%	978,674	2.3
55-64	142	134	134	146	123	-23	-3.1%	756,464	1.6
65-74	68	77	73	82	62	-20	-1.0%	434,420	1.4
75+	74	60	56	66	44	-22	-10.3%	316,731	1.4
<b>Total</b>	<b>1,332</b>	<b>1,301</b>	<b>1,237</b>	<b>1,231</b>	<b>1,109</b>	<b>-122</b>	<b>-4.4%</b>	<b>4,940,585</b>	<b>2.2</b>

**Notes:**

Includes drivers with valid age reported (i.e., 15-109).

Fifteen year-old licensed driver counts are excluded due to data discrepancies with permit/licensed drivers in this age category.

Statistics on licensed drivers for 2007 and 2008 were provided in a different format from previous years; significant changes over this time are likely due to this format change.

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

Indiana Bureau of Motor Vehicles, as of February 16, 2009

**Table 5. Drivers killed in traffic collisions in Indiana, and restraint non-use rates, by age, 2004-2008**

Age						Change	Average annual change
	2004	2005	2006	2007	2008		
<b>Total killed</b>							
15-20	99	81	89	68	75	7	-5.4%
15	2	0	0	0	1	1	n/a
16	24	14	17	5	11	6	7.3%
17	14	24	14	10	8	-2	-4.7%
18	22	16	18	22	22	0	1.9%
19	13	18	22	18	17	-1	9.2%
20	24	9	18	13	16	3	8.2%
21-24	73	80	61	49	56	7	-4.9%
25-34	122	118	100	118	114	-4	-1.0%
35-44	91	110	114	100	75	-25	-3.2%
45-54	92	103	92	110	102	-8	3.4%
55-64	71	79	75	77	62	-15	-2.7%
65-74	41	42	37	47	31	-16	-4.1%
75+	51	46	40	52	35	-17	-6.4%
<b>ALL AGES</b>	<b>640</b>	<b>659</b>	<b>608</b>	<b>621</b>	<b>550</b>	<b>-71</b>	<b>-3.5%</b>
<b>% not restrained</b>							
15-20	41.4%	35.8%	57.3%	48.5%	42.7%	-5.9	0.05
15	50.0%	n/a	n/a	n/a	100.0%	n/a	n/a
16	41.7%	35.7%	64.7%	60.0%	18.2%	-41.8	-2.5
17	28.6%	29.2%	57.1%	30.0%	12.5%	-17.5	-2.0
18	40.9%	31.3%	55.6%	31.8%	63.6%	31.8	27.9
19	53.8%	55.6%	59.1%	66.7%	41.2%	-25.5	-4.0
20	45.8%	22.2%	50.0%	61.5%	50.0%	-11.5	19.5
21-24	47.9%	61.3%	45.9%	65.3%	57.1%	-8.2	8.1
25-34	59.8%	57.6%	57.0%	58.5%	64.9%	6.4	2.2
35-44	52.7%	67.3%	66.7%	57.0%	56.0%	-1.0	2.6
45-54	50.0%	58.3%	50.0%	50.0%	50.0%	0.0	0.6
55-64	54.9%	41.8%	38.7%	41.6%	41.9%	0.4	-5.8
65-74	46.3%	26.2%	29.7%	38.3%	35.5%	-2.8	-2.1
75+	27.5%	28.3%	32.5%	26.9%	40.0%	13.1	12.3
<b>ALL AGES</b>	<b>49.4%</b>	<b>51.1%</b>	<b>51.2%</b>	<b>49.9%</b>	<b>51.5%</b>	<b>1.5</b>	<b>1.1</b>

**Note:**

Includes drivers reported with valid age (i.e., 15-109); therefore, excludes fatalities under 15 years.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Table 6. Injuries in collisions involving young drivers (ages 15 to 20), 2004-2008**

Injury status	Person type	2004	2005	2006	2007	2008
All	Young drivers	59,017	56,949	52,100	53,024	50,885
	Other	42,382	40,166	36,927	36,664	34,196
	All	101,399	97,115	89,027	89,688	85,081
Fatality	Young drivers	99	81	89	68	75
	Other	122	106	103	106	82
	All	221	187	192	174	157
Incapacitating	Young drivers	436	401	381	369	338
	Other	602	576	589	504	468
	All	1,038	977	970	873	806
Non-incapacitating	Young drivers	7,724	7,147	6,741	6,137	5,314
	Other	10,133	9,559	9,199	8,605	7,297
	All	17,857	16,706	15,940	14,742	12,611
Other injury	Young drivers	5,333	6,055	3,824	1,473	1,015
	Other	3,625	4,158	2,638	969	710
	All	8,958	10,213	6,462	2,442	1,725
Not injured	Young drivers	45,425	43,265	41,065	44,977	44,143
	Other	27,900	25,767	24,398	26,480	25,639
	All	73,325	69,032	65,463	71,457	69,782

**Notes:**

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

*Other injury* status includes *not reported*, *unknown*, *refused* (treatment), or invalid (+) injury status codes.

*Not injured* status includes individuals involved in collisions reported as null values in the injury status code field and should only apply to drivers involved in collisions.

*Other* person type includes *drivers* (excluding drivers ages 15 to 20), *vehicle passengers*, *pedestrians*, and *pedalcyclists*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Motorcycle Safety**

**Short-term goals**

- Reduce the number of motorcycle fatalities from 130 in 2008 to 127 in 2010
- Decrease the rate of motorcycle fatalities per 10,000 motorcycle registrations from 6.5 in 2008 to 6.4 in 2010
- Reduce the number of unhelmeted motorcycle fatalities from 83 in 2008 to 81 in 2010

**Long-term goals**

- Reduce the number of motorcycle fatalities to 122 in 2012
- Decrease the rate of motorcycle fatalities per 10,000 motorcycle registrations to 6.2 by 2012
- Reduce the number of unhelmeted motorcycle fatalities to 78 in 2012

**Context**

Although motorcycle involvement in fatal collisions has increased 8.1 percent on average since 1999, the rate of involvement (per 10,000 motorcycle registrations) has increased only one percent over the same time frame. Motorcyclist fatalities were at a ten-year high in 2008, as were motorcycles involved in fatal collisions.

Among motorcycle operators involved in traffic collisions, operators ages 15 to 20 were most likely to not have been properly licensed. In general, 49.1 percent of operators involved in collisions in 2008 did not have proper motorcycle licensing, a 2.6 percentage point decrease from 2007. Among operators killed in traffic collisions, 50 percent did not have proper licensing. Nearly 77 percent of 15 to 20 year-old operators killed in collisions did not have proper licensing.

The proportion of motorcyclist fatalities not using a helmet decreased 1.1 percentage points from 2007 to 2008, whereas the proportion for moped riders increased. In the last five years among moped riders killed in traffic collisions, only one of 55 (1.8 percent) was wearing a helmet.

**Table 7. Motorcycles and motorcyclist fatalities in Indiana traffic collisions, 1999-2008**

Year	Registered motorcycles	Motorcycles involved in fatal collisions	Motorcyclist fatalities	Involved per 10,000 registered	Fatalities per 10,000 registered
1999	108,716	67	67	6.16	6.16
2000	118,796	73	73	6.14	6.14
2001	128,130	85	85	6.63	6.63
2002	134,881	89	88	6.60	6.52
2003	145,948	78	77	5.34	5.28
2004	154,739	105	108	6.79	6.98
2005	164,423	114	112	6.93	6.81
2006	162,683	113	108	6.95	6.64
2007	185,048	121	122	6.54	6.59
2008	200,387	128	130	6.39	6.49
Change ('07 - '08)	15,339	7	8	-0.15	-0.11
Average annual % change	7.1%	8.1%	8.5%	1.0%	1.3%

**Note:**  
Data include mopeds.

**Sources:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Indiana Bureau of Motor Vehicles, as of February 16, 2009

**Table 8. Motorcycle and moped operators involved in Indiana traffic collisions without proper licensing and percent not properly licensed, by age group, 2004-2008**

Age group						Change ('07 - '08)	Average annual % change
	2004	2005	2006	2007	2008		
<b>Operators not properly licensed</b>							
15 - 20	238	215	242	273	289	16	5.4%
21 - 24	218	207	174	203	205	2	-0.8%
25 - 34	391	383	306	365	363	-2	-0.9%
35 - 44	401	424	361	347	363	16	-2.1%
45 - 54	370	336	336	326	349	23	-1.3%
55 - 64	155	144	164	133	140	7	-1.7%
65 - 74	27	22	43	41	35	-6	14.4%
75 +	8	8	7	6	8	2	1.6%
<b>ALL AGES</b>	<b>1,831</b>	<b>1,780</b>	<b>1,671</b>	<b>1,756</b>	<b>1,800</b>	<b>44</b>	<b>-0.3%</b>
<b>Not properly licensed as percent of all motorcycle and moped operators</b>							
15 - 20	81.2%	78.8%	76.6%	74.8%	69.8%	-5.0	-3.7%
21 - 24	74.1%	73.9%	62.4%	60.2%	58.4%	-1.8	-5.6%
25 - 34	75.2%	70.5%	61.3%	54.3%	52.9%	-1.4	-8.3%
35 - 44	67.3%	67.3%	56.7%	49.0%	47.0%	-2.1	-8.4%
45 - 54	67.5%	59.2%	54.4%	42.8%	41.5%	-1.2	-11.2%
55 - 64	63.5%	56.0%	48.0%	36.1%	31.8%	-4.3	-15.7%
65 - 74	64.3%	47.8%	55.1%	39.4%	37.2%	-2.2	-11.1%
75 +	61.5%	61.5%	50.0%	46.2%	47.1%	0.9	-6.1%
<b>ALL AGES</b>	<b>71.0%</b>	<b>67.0%</b>	<b>59.2%</b>	<b>51.7%</b>	<b>49.1%</b>	<b>-2.6</b>	<b>-8.8%</b>

**Notes:**

*Properly licensed* defined as motorcycle operator with any one of the following license types: *Chauffeur w/mc Endorsement, Learner Motorcycle, Motorcycle, Operators w/Motorcycle Endorsement, PP Chauffeur w/mc Endorsement.*

Counts exclude cases where an unknown, invalid, or no license type was reported.

*All ages* includes drivers with invalid or no age reported; consequently, sum of age-group counts may not equal *all ages*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Table 9. Motorcycle and moped operators killed in Indiana traffic collisions without proper licensing and percent not properly licensed, by age group, 2004-2008**

Age group	2004	2005	2006	2007	2008	Change ('07 - '08)	Average annual % change
<b>Operators not properly licensed</b>							
15 - 20	8	4	6	4	10	6	29.2%
21 - 24	8	11	5	2	10	8	80.7%
25 - 34	12	13	4	15	10	-5	45.2%
35 - 44	15	25	19	14	8	-6	-6.6%
45 - 54	7	13	11	10	11	1	17.8%
55 - 64	9	4	6	8	7	-1	3.8%
65 - 74	1	0	1	2	1	-1	--
75 +	1	0	0	0	0	0	--
All ages	62	71	52	56	58	2	-0.2%
<b>ALL AGES</b>	<b>62</b>	<b>71</b>	<b>52</b>	<b>56</b>	<b>58</b>	<b>2</b>	<b>-0.2%</b>
<b>Not properly licensed as percent of all motorcycle and moped operators</b>							
15 - 20	72.7%	66.7%	100.0%	57.1%	76.9%	19.8	8.4%
21 - 24	88.9%	73.3%	62.5%	66.7%	76.9%	10.3	-2.6%
25 - 34	60.0%	76.5%	40.0%	68.2%	45.5%	-22.7	4.2%
35 - 44	62.5%	69.4%	63.3%	48.3%	38.1%	-10.2	-10.6%
45 - 54	50.0%	65.0%	52.4%	38.5%	47.8%	9.4	2.1%
55 - 64	69.2%	36.4%	50.0%	50.0%	36.8%	-13.2	-9.1%
65 - 74	50.0%	0.0%	33.3%	33.3%	50.0%	16.7	--
75 +	100.0%	--	--	0.0%	0.0%	0.0	--
<b>ALL AGES</b>	<b>65.3%</b>	<b>66.4%</b>	<b>57.8%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>0.0</b>	<b>-6.2%</b>

**Notes:**

Properly licensed defined as motorcycle operator with any one of the following license types: *Chauffeur w/mc Endorsement, Learner Motorcycle, Motorcycle, Operators w/Motorcycle Endorsement, PP Chauffeur w/mc Endorsement.*

Counts exclude cases where an unknown, invalid, or no license type was reported.

All ages includes drivers with invalid or no age reported; consequently, sum of age-group counts may not equal all ages.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Table 10. Motorcycle and moped rider fatalities, by helmet use, 2004-2008**

Vehicle type/helmet use	Count of rider fatalities					Change ('07-'08)
	2004	2005	2006	2007	2008	
<b>Motorcycle (MC)</b>	<b>97</b>	<b>103</b>	<b>96</b>	<b>115</b>	<b>114</b>	<b>-1</b>
Helmet used	27	20	19	30	31	1
Helmet not used	70	83	77	85	83	-2
<b>Moped (MP)</b>	<b>11</b>	<b>9</b>	<b>12</b>	<b>7</b>	<b>16</b>	<b>9</b>
Helmet used	1	0	0	0	0	0
Helmet not used	10	9	12	7	16	9
<b>MC + MP</b>	<b>108</b>	<b>112</b>	<b>108</b>	<b>122</b>	<b>130</b>	<b>8</b>
Helmet used	28	20	19	30	31	1
Helmet not used	80	92	89	92	99	7
<b>% Helmet not used</b>						
Motorcycle	72.2%	80.6%	80.2%	73.9%	72.8%	-1.1
Moped	90.9%	100.0%	100.0%	100.0%	100.0%	0.0
MC + MP	74.1%	82.1%	82.4%	75.4%	76.2%	0.7

**Notes:**

Helmet not used includes all safety equipment types other than helmet.

Counts limited to individuals listed as driver or injured occupant on the crash report.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Dangerous Driving**

**Short-term goals**

- Reduce the number of speed-related fatalities from 225 in 2008 to 221 in 2010
- Reduce the percentage of speed-related fatal collisions from 26 percent in 2008 to 25.6 percent in 2010
- Reduce the number of collisions caused by a vehicle that disregarded a traffic signal from 4,343 in 2008 to 4,189 in 2010
- Reduce the number of aggressive driving collisions from 3,007 in 2008 to 2,947 in 2010

**Long-term goals**

- Reduce the number of speed-related traffic fatalities to 212 in 2012
- Reduce the percentage of speed-related fatal collisions to 24.5 percent in 2012
- Reduce the number of collisions caused by disregarded a traffic signal to 4,082 by 2012

- Reduce the number of aggressive driving collisions to 2,827 by 2012

**Context**

As a proportion of all collisions from 2007 to 2008, aggressive driving collisions did not change by a significant margin, whereas speed-related collisions (as a proportion of all collisions) increased 2.1 percentage points. The number of speed-related fatalities increased more than 20 percent from 2007 (187) to 2008 (225). Fatalities increased by eight from 2007 to 2008 in collisions involving aggressive driving and by 38 in speed-related collisions. As a proportion of all fatalities, speed-related fatalities increased 6.8 percentage points from 2007 to 2008 and 1.2 percentage points for aggressive driving collisions. Fatalities in collisions involving a vehicle disregarding a traffic signal decreased by 11 from 2007 to 2008 (a one percentage point decrease).

**Table 11. Collisions and fatalities in collisions, by dangerous driving involvement, 2004-2008**

Outcome	2004	2005	2006	2007	2008	Change ('07-'08)
<b>Total collisions</b>	<b>208,682</b>	<b>208,359</b>	<b>192,721</b>	<b>204,999</b>	<b>205,451</b>	<b>452</b>
Aggressive driving	4,111	3,582	3,240	3,045	3,007	-38
% Aggressive driving	2.0%	1.7%	1.7%	1.5%	1.5%	< 0.1
Speed-related	18,812	20,010	14,570	18,491	22,819	4,328
% Speed-related	9.0%	9.6%	7.6%	9.0%	11.1%	2.1
Disregard signal	5,115	4,517	2,855	4,797	4,343	-454
% Disregard signal	2.5%	2.2%	1.5%	2.3%	2.1%	-0.2
<b>Fatal collisions</b>	<b>857</b>	<b>855</b>	<b>817</b>	<b>804</b>	<b>722</b>	<b>-82</b>
Aggressive driving	29	23	11	21	23	2
% Aggressive driving	3.4%	2.7%	1.3%	2.6%	3.2%	0.6
Speed-related	177	203	159	165	188	23
% Speed-related	20.7%	23.7%	19.5%	20.5%	26.0%	5.5
Disregard signal	17	12	15	23	16	-7
% Disregard signal	2.0%	1.4%	1.8%	2.9%	2.2%	-0.6
<b>Fatalities</b>	<b>947</b>	<b>938</b>	<b>899</b>	<b>898</b>	<b>815</b>	<b>-83</b>
Aggressive driving	32	26	14	21	29	8
% Aggressive driving	3.4%	2.8%	1.6%	2.3%	3.6%	1.2
Speed-related	207	229	174	187	225	38
% Speed-related	21.9%	24.4%	19.4%	20.8%	27.6%	6.8
Disregard signal	18	13	15	27	16	-11
% Disregard signal	1.9%	1.4%	1.7%	3.0%	2.0%	-1.0

**Note:**  
See glossary for definitions of *aggressive driving*, *speeding*, and *disregard signal*.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Children**

**Short-term goals**

- Reduce the number of fatalities ages 15 and younger from 47 in 2008 to 46 in 2010
- Reduce the number of serious bodily injuries for children 15 and younger from 249 in 2008 to 244 in 2010

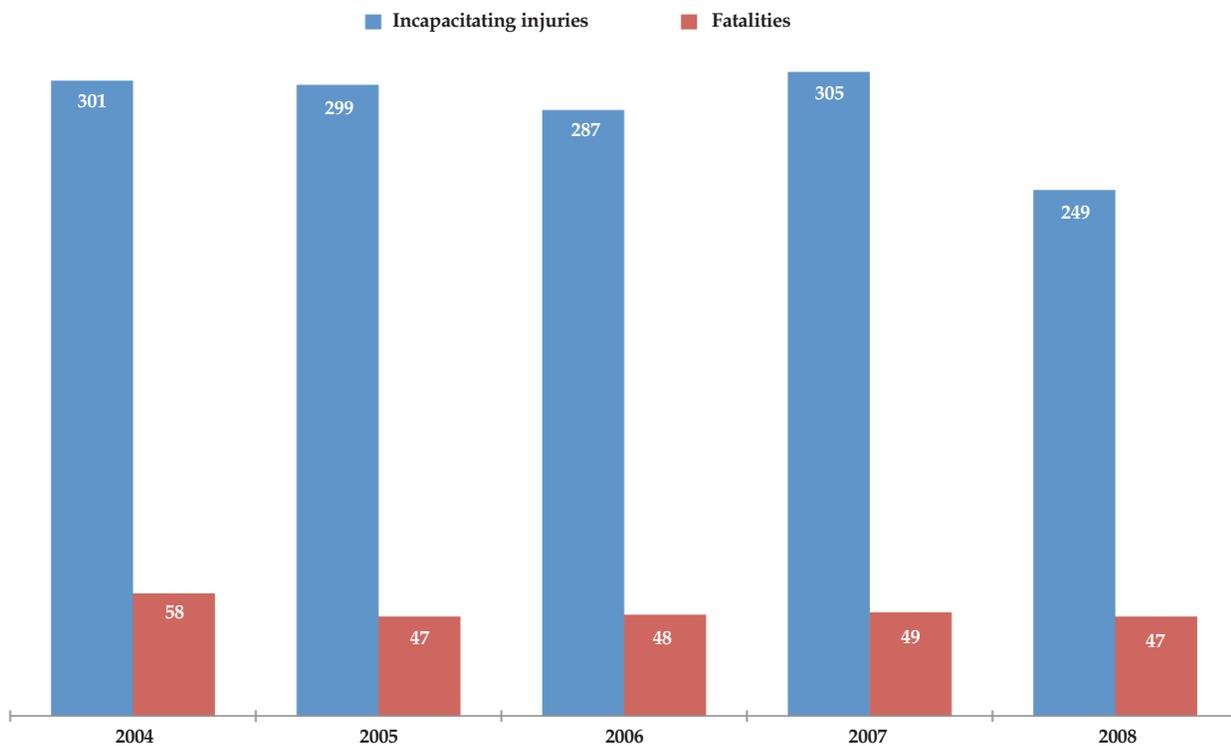
**Long-term goals**

- Reduce the number of fatalities ages 15 and younger to 44 in 2012
- Reduce the number of serious bodily injuries for age 15 and younger to 234 in 2012

**Context**

In 2008, approximately 5 percent of the more than 6,000 children (ages 0 to 15) involved in Indiana traffic collisions experienced serious or life threatening injuries, 47 were fatal and 249 were reported as incapacitating. The number of incapacitating child traffic injuries in 2008 was at a five-year low, while the number of child traffic fatalities has generally remained steady since 2005.

**Figure 5. Children (ages 0 to 15) seriously injured in Indiana traffic collisions, 2004-2008**



**Note:** Seriously injured applies to individuals suffering fatal or incapacitating injuries.

**Source:** Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

**Pedestrians**

**Short-term goal**

- Reduce the number of fatalities of pedestrians from 60 in 2008 to 58 in 2010

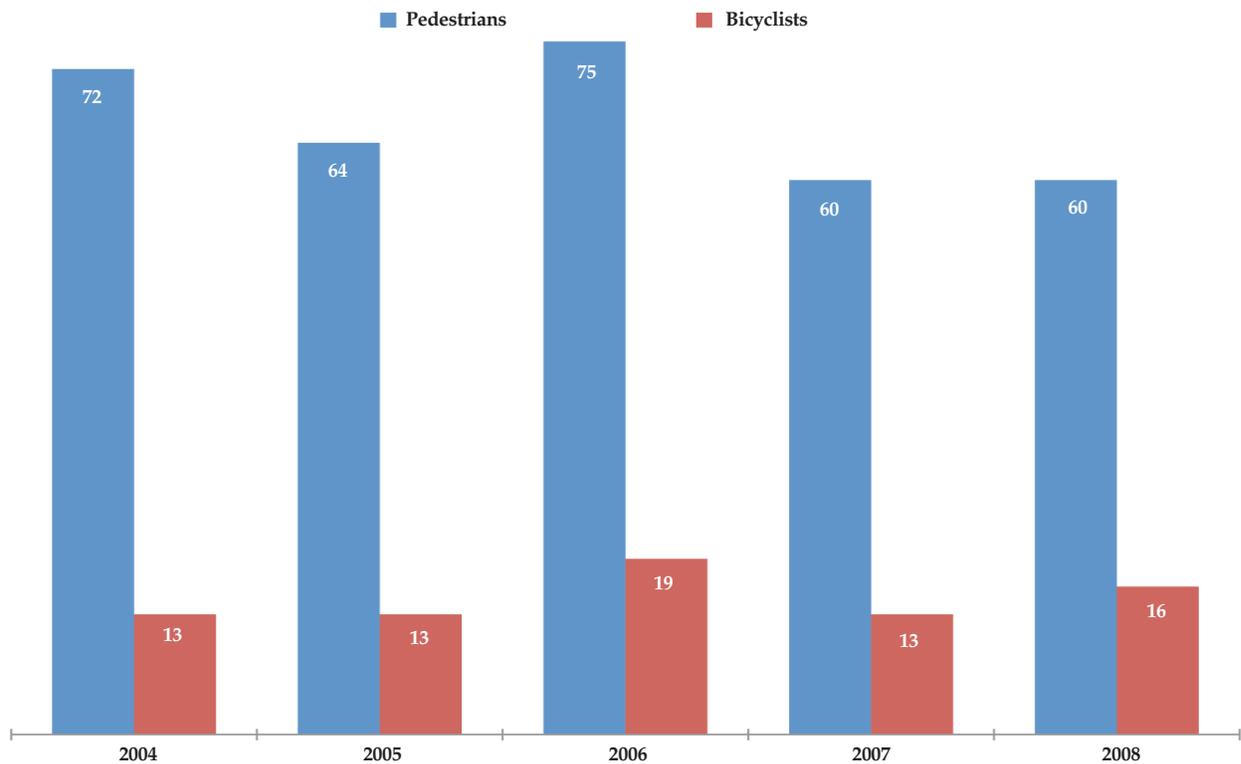
**Long-term goal**

- Reduce the number of fatalities of pedestrians to 56 in 2012

**Context**

In 2008, 60 pedestrians were killed in Indiana traffic collisions, a number unchanged from 2007. Pedestrians represented more than three-fourths of all 2008 Indiana non-motorist traffic fatalities. The total number of pedestrian traffic-related fatalities decreased nearly 17 percent between 2004 and 2008.

**Figure 6. Non-motorists (pedestrians and bicyclists) killed in Indiana traffic collisions, 2004-2008**



Source: Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

# GENERAL TRENDS



## GENERAL TRENDS, 2008

The General Trends section provides a time series analysis of Indiana collisions based on various parameters that describe the conditions and circumstances of those collisions. Collision data are categorized by the most severe injury involved (*fatal* collisions involve at least one fatality; *incapacitating* collisions involve no fatalities but at least one incapacitating injury; etc.). Trends in collisions involving alcohol, speeding, and aggressive driving are included, as are analyses by time, date, location, road type, harmful events, and other relevant variables.

### HIGHLIGHTS

Indiana traffic fatalities per 100m vehicle miles travelled (VMT) were at a five-year low.

The rate of fatalities at the national level was on average 1.2 times higher than that of Indiana over the last 10 years.

On average over the last five years, there were 75 fatalities or 1.3 traffic fatalities per 100m VMT per month.

Per 100m VMT, fatal injuries decreased by 0.03 from 2007 to 2008.

Drivers killed in 2008 represented 68 percent of all traffic fatalities, down 1.7 percent from 2007.

Fatal collisions and fatalities involving alcohol were at five-year lows in 2008.

In 2008, 3.6 percent of all fatalities were in collisions involving aggressive driving, a five-year high.

Per 100m VMT, collisions involving a vehicle disregarding a signal decreased from 2007 to 2008.

In 2008, 3.6 percent of all fatalities were in hit-and-run collisions, the highest level since 2005.

From 2007 to 2008 speed-related collisions increased by 8.26 per 100m VMT.

The incidence of rural alcohol-related and speed-related fatalities decreased 13.2 percentage points each from 2007 to 2008, the largest drop among all collision types.

- From 2007 to 2008, fatal collisions and fatalities decreased 10.2 percent and 9.2 percent, respectively.
- When normalized by driver licenses, vehicle registrations, and vehicle miles travelled, Indiana traffic fatalities have generally decreased since 1999.
- All fatality rates for 2008 were ten-year lows, with the exception of fatalities per 100m VMT (five-year low).

**Table 12. Indiana traffic collisions, fatalities, and demographic trends, 1999-2008**

Year	Total collisions	Fatal collisions	Fatalities	Resident population (000s)	Fatalities, per 100,000 population	Licensed drivers (000s)	Fatalities, per 100,000 licensed	Registered vehicles (000s)	Fatalities per 100,000 registered	Vehicle miles travelled (VMT) (1m)	Fatalities, per 100m VMT
1999	217,340	892	1,020	6,045	16.9	3,856	2.6	5,687	17.9	69,129	1.48
2000	220,883	793	886	6,091	14.5	3,976	2.2	5,982	14.8	70,040	1.26
2001	--	825	909	6,124	14.8	4,117	2.2	6,143	14.8	70,862	1.28
2002	--	714	792	6,147	12.9	4,221	1.9	6,180	12.8	71,802	1.10
2003	211,731	753	833	6,179	13.5	4,536	1.8	6,344	13.1	72,523	1.15
2004	208,682	857	947	6,211	15.2	4,521	2.1	6,432	14.7	74,539	1.27
2005	208,359	855	938	6,249	15.0	4,965	1.9	6,557	14.3	74,252	1.26
2006	192,721	817	899	6,294	14.3	5,324	1.7	6,309	14.2	74,173	1.21
2007	204,999	804	898	6,336	14.2	5,105	1.8	6,482	13.9	74,092	1.21
2008	205,451	722	815	6,377	12.8	4,942	1.6	6,377	12.8	68,690	1.19
% Change ('07 - '08)	0.2%	-10.2%	-9.2%	0.6%	-9.8%	-3.2%	-6.3%	-1.6%	-7.7%	-7.3%	-2.1%

**Notes:**

Collision data for 2001 and 2002 omitted because of incomplete records within state records database. Statistics on licensed drivers for 2007 and 2008 were provided in a different format from previous years; decreases are likely due to this format change.

**Sources:**

*Collisions* 1999-2000: *Indiana Crash Facts, 2000*  
 2003-2008: Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

*Fatal collisions* 1999-2002: Fatality Analysis Reporting System  
 2003-2008: Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

*Resident population* 1999: Table CO-EST2001-12-00 - *Time Series of Intercensal State Population Estimates: April 1, 1990 to April 1, 2000*; Population Division, U.S. Census Bureau; Release Date: 4/11/2002  
 2000-2008: Table NST-EST2008-01 - *Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2007*; Population Division, U.S. Census Bureau; Release Date: 12/22/2008

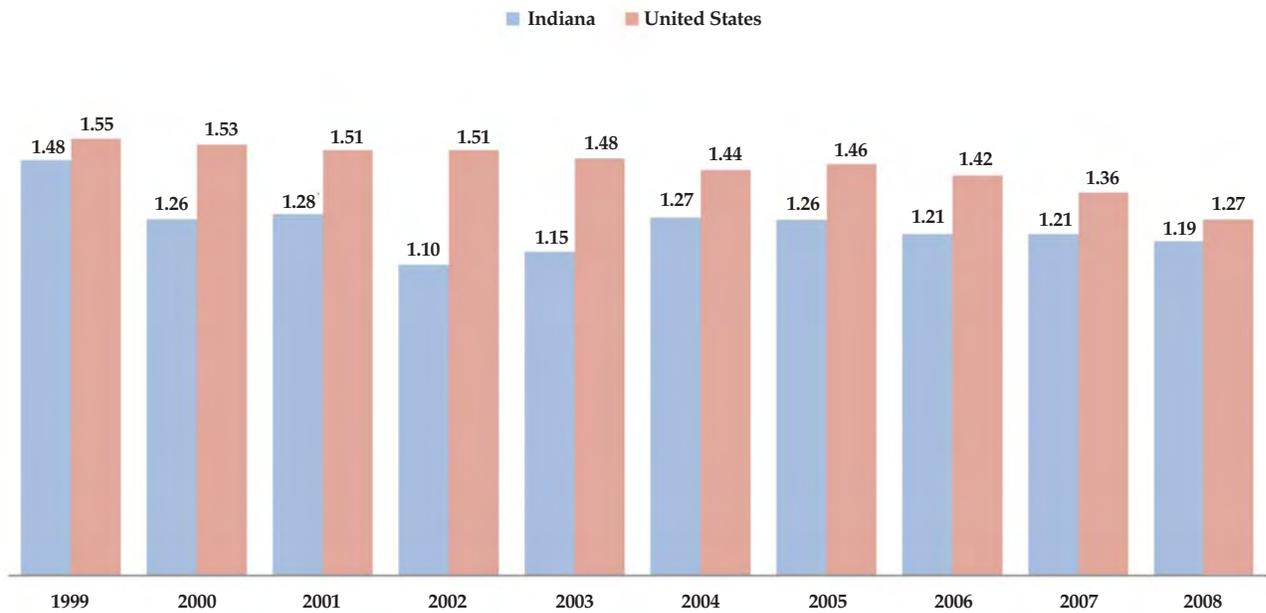
*Licensed drivers* 1999-2002: Federal Highway Administration, *Highway Statistics*  
 2003-2008: Indiana Bureau of Motor Vehicles, as of February 1, 2009

*Registered vehicles* Indiana Bureau of Motor Vehicles, as of February 16, 2009

*Vehicle miles travelled* 1999-2002: Federal Highway Administration, *Highway Statistics*  
 2003-2008: Indiana Department of Transportation, as of April 15, 2009

- The Indiana fatality rate decreased 2.1 percent from 2007 to 2008 and two percent on average from 1999 to 2008.
- On average from 1999 to 2008, the United States fatality rate was 1.2 times higher than that of Indiana.

Figure 7. Traffic fatalities, per 100m vehicle miles travelled (VMT), 1999-2008



**Sources:**

*Fatal collisions* 1999-2002: Fatality Analysis Reporting System  
 2003-2008: Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

*Vehicle miles travelled* 1999-2002: Federal Highway Administration, *Highway Statistics*  
 2003-2008: Indiana Department of Transportation, as of April 15, 2009

- Fatal collisions and non-fatal injury collisions were at five-year lows in 2008, while property damage only collisions were at a five-year high.
- Fatal collisions and fatal injuries both decreased by 0.03 per 100m VMT from 2007 to 2008.
- Drivers killed in 2008 represented 68 percent of all traffic fatalities, a 1.7 percentage point decrease from 2007 (69.7 percent).

**Table 13. Traffic collisions in Indiana and individuals involved, 2004-2008**

	2004	2005	2006	2007	2008	Per 100m VMT		
						2007	2008	Change ('07-'08)
<b>All collisions</b>	<b>208,682</b>	<b>208,359</b>	<b>192,721</b>	<b>204,999</b>	<b>205,451</b>	<b>276.68</b>	<b>299.10</b>	<b>22.42</b>
Fatal	857	855	817	804	722	1.09	1.05	-0.03
Non-fatal injury	43,303	41,761	38,849	37,416	35,358	50.50	51.47	0.98
Property damage only	164,522	165,743	153,055	166,779	169,371	225.10	246.57	21.48
<b>Injuries</b>	<b>62,599</b>	<b>60,188</b>	<b>56,095</b>	<b>53,363</b>	<b>49,652</b>	<b>72.02</b>	<b>72.28</b>	<b>0.26</b>
<b>Fatal</b>	<b>947</b>	<b>938</b>	<b>899</b>	<b>898</b>	<b>815</b>	<b>1.21</b>	<b>1.19</b>	<b>-0.03</b>
Drivers	644	661	609	626	554	0.84	0.81	-0.04
Vehicle passengers	218	200	196	199	185	0.27	0.27	< 0.01
Non-motorists	85	77	94	73	76	0.10	0.11	0.01
<b>Incapacitating</b>	<b>3,961</b>	<b>3,823</b>	<b>3,807</b>	<b>3,661</b>	<b>3,382</b>	<b>4.94</b>	<b>4.92</b>	<b>-0.02</b>
Drivers	2,745	2,562	2,583	2,490	2,343	3.36	3.41	0.05
Vehicle passengers	936	962	913	870	750	1.17	1.09	-0.08
Non-motorists	280	299	311	301	289	0.41	0.42	0.01
<b>Non-incapacitating</b>	<b>57,691</b>	<b>55,427</b>	<b>51,389</b>	<b>48,804</b>	<b>45,455</b>	<b>65.87</b>	<b>66.17</b>	<b>0.30</b>
Drivers	40,475	39,077	36,016	33,703	31,554	45.49	45.94	0.45
Vehicle passengers	15,248	14,520	13,427	12,853	11,710	17.35	17.05	-0.30
Non-motorists	1,968	1,830	1,946	2,248	2,191	3.03	3.19	0.16

**Notes:**

*Non-fatal injury collisions* are those with no fatalities and at least one *incapacitating, non-incapacitating, or possible injury*.  
*Non-incapacitating* includes *non-incapacitating* and *possible injury* status codes.

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Indiana Department of Transportation, as of April 15, 2009

- Fatal collisions and fatalities involving alcohol were at five-year lows in 2008.
- In 2008, 30.2 percent of all traffic fatalities (246 of 815) involved alcohol, up 1.9 percentage points from 2007.
- Per 100m VMT, the incidence of alcohol-related fatalities increased while non-fatal injuries decreased from 2007 to 2008.

**Table 14. Alcohol-related traffic collisions in Indiana and individuals involved, 2004-2008**

	2004	2005	2006	2007	2008	Per 100m VMT		
						2007	2008	Change ('07-'08)
<b>Alcohol-related collisions</b>	<b>13,436</b>	<b>13,684</b>	<b>11,855</b>	<b>9,943</b>	<b>9,411</b>	<b>13.42</b>	<b>13.70</b>	<b>0.28</b>
Fatal	260	262	250	233	218	0.31	0.32	< 0.01
Non-fatal injury	4,676	4,696	4,200	3,557	3,225	4.80	4.70	-0.11
Property damage	8,500	8,726	7,405	6,153	5,968	8.30	8.69	0.38
<b>Injuries</b>	<b>6,877</b>	<b>6,920</b>	<b>6,152</b>	<b>5,241</b>	<b>4,735</b>	<b>7.07</b>	<b>6.89</b>	<b>-0.18</b>
<b>Fatal</b>	<b>284</b>	<b>293</b>	<b>274</b>	<b>254</b>	<b>246</b>	<b>0.34</b>	<b>0.36</b>	<b>0.02</b>
Drivers	195	200	192	184	167	0.25	0.24	< 0.01
Vehicle passengers	61	77	57	54	57	0.07	0.08	0.01
Non-motorists	28	16	25	16	22	0.02	0.03	0.01
<b>Incapacitating</b>	<b>720</b>	<b>704</b>	<b>720</b>	<b>646</b>	<b>582</b>	<b>0.87</b>	<b>0.85</b>	<b>-0.02</b>
Drivers	512	471	479	467	396	0.63	0.58	-0.05
Vehicle passengers	173	202	199	138	134	0.19	0.20	< 0.01
Non-motorists	35	31	42	41	52	0.06	0.08	0.02
<b>Non-incapacitating</b>	<b>5,873</b>	<b>5,923</b>	<b>5,158</b>	<b>4,341</b>	<b>3,907</b>	<b>5.86</b>	<b>5.69</b>	<b>-0.17</b>
Drivers	4,258	4,317	3,792	3,060	2,809	4.13	4.09	-0.04
Vehicle passengers	1,473	1,473	1,211	1,142	950	1.54	1.38	-0.16
Non-motorists	142	133	155	139	148	0.19	0.22	0.03
	<b>Alcohol-related injuries as % total, by injury status</b>							
Fatal	30.0%	31.2%	30.5%	28.3%	30.2%			
Incapacitating	18.2%	18.4%	18.9%	17.6%	17.2%			
Non-incapacitating	10.2%	10.7%	10.0%	8.9%	8.6%			

**Notes:**

See glossary for definition of *alcohol-related*.

*Non-fatal injury* collisions are those with no fatalities and at least one *incapacitating*, *non-incapacitating*, or *possible* injury.

*Non-incapacitating* includes *non-incapacitating* and *possible* injury status codes.

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

Indiana Department of Transportation, as of April 15, 2009

- In 2008, 3.6 percent of all fatalities were in collisions involving aggressive driving, a five-year high.
- Per 100m VMT from 2007 to 2008, fatalities involving aggressive driving increased slightly, whereas non-fatal injuries decreased.
- The proportion of aggressive driving collisions that involved one or more fatalities was at a five-year high in 2008 (0.8 percent, or 23 of 3,007).

**Table 15. Aggressive driving collisions in Indiana and individuals involved, 2004-2008**

	2004	2005	2006	2007	2008	Per 100m VMT		
						2007	2008	Change ('07-'08)
<b>Aggressive driving collisions</b>	<b>4,111</b>	<b>3,582</b>	<b>3,240</b>	<b>3,045</b>	<b>3,007</b>	<b>4.11</b>	<b>4.38</b>	<b>0.27</b>
Fatal	29	23	11	21	23	0.03	0.03	< 0.01
Non-fatal injury	1,140	967	947	832	801	1.12	1.17	0.04
Property damage only	2,942	2,592	2,282	2,192	2,183	2.96	3.18	0.22
<b>Injuries</b>	<b>1,854</b>	<b>1,603</b>	<b>1,547</b>	<b>1,385</b>	<b>1,256</b>	<b>1.87</b>	<b>1.83</b>	<b>-0.04</b>
<b>Fatal</b>	<b>32</b>	<b>26</b>	<b>14</b>	<b>21</b>	<b>29</b>	<b>0.03</b>	<b>0.04</b>	<b>0.01</b>
Drivers	23	17	9	18	18	0.02	0.03	< 0.01
Vehicle passengers	9	9	4	2	6	< 0.01	< 0.01	< 0.01
Non-motorists	0	0	1	1	5	< 0.01	< 0.01	< 0.01
<b>Incapacitating</b>	<b>109</b>	<b>92</b>	<b>130</b>	<b>105</b>	<b>87</b>	<b>0.14</b>	<b>0.13</b>	<b>-0.02</b>
Drivers	83	63	81	66	53	0.09	0.08	-0.01
Vehicle passengers	24	28	48	37	32	0.05	0.05	< 0.01
Non-motorists	2	1	1	2	2	< 0.01	< 0.01	< 0.01
<b>Non-incapacitating</b>	<b>1,713</b>	<b>1,485</b>	<b>1,403</b>	<b>1,259</b>	<b>1,140</b>	<b>1.70</b>	<b>1.66</b>	<b>-0.04</b>
Drivers	1,168	1,031	993	862	782	1.16	1.14	-0.02
Vehicle passengers	529	445	404	382	336	0.52	0.49	-0.03
Non-motorists	16	9	6	15	22	0.02	0.03	0.01
<b>Aggressive driving injuries as % total, by injury status</b>								
Fatal	3.4%	2.8%	1.6%	2.3%	3.6%			
Incapacitating	2.8%	2.4%	3.4%	2.9%	2.6%			
Non-incapacitating	3.0%	2.7%	2.7%	2.6%	2.5%			

**Notes:**

See glossary for definition of *aggressive driving*.

*Non-fatal injury* include collisions with no fatalities and at least one *incapacitating*, *non-incapacitating*, or *possible injury*.

*Non-incapacitating* includes *non-incapacitating* and *possible injury* status codes.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- From 2007 to 2008 speed-related collisions increased by 8.26 per 100m VMT.
- Per 100m VMT from 2007 to 2008, the incidence of all injury types in speed-related collisions increased.
- In 2008, 27.6 percent of all fatalities were speed-related, a five-year high.

**Table 16. Speed-related collisions in Indiana and individuals involved, 2004-2008**

	2004	2005	2006	2007	2008	Per 100m VMT		
						2007	2008	Change ('07-'08)
<b>Speed-related collisions</b>	<b>18,812</b>	<b>20,010</b>	<b>14,570</b>	<b>18,491</b>	<b>22,819</b>	<b>24.96</b>	<b>33.22</b>	<b>8.26</b>
Fatal	177	203	159	165	188	0.22	0.27	0.05
Non-fatal injury	5,212	5,107	4,317	4,376	4,711	5.91	6.86	0.95
Property damage only	13,423	14,700	10,094	13,950	17,920	18.83	26.09	7.26
<b>Injuries</b>	<b>7,878</b>	<b>7,717</b>	<b>6,514</b>	<b>6,585</b>	<b>6,984</b>	<b>8.89</b>	<b>10.17</b>	<b>1.28</b>
<b>Fatal</b>	<b>207</b>	<b>229</b>	<b>174</b>	<b>187</b>	<b>225</b>	<b>0.25</b>	<b>0.33</b>	<b>0.08</b>
Drivers	140	161	128	136	153	0.18	0.22	0.04
Vehicle passengers	64	64	40	47	67	0.06	0.10	0.03
Non-motorists	3	4	6	4	5	< 0.01	< 0.01	< 0.01
<b>Incapacitating</b>	<b>563</b>	<b>617</b>	<b>607</b>	<b>559</b>	<b>585</b>	<b>0.75</b>	<b>0.85</b>	<b>0.10</b>
Drivers	403	406	415	375	428	0.51	0.62	0.12
Vehicle passengers	154	195	163	171	144	0.23	0.21	-0.02
Non-motorists	6	16	29	13	13	0.02	0.02	< 0.01
<b>Non-incapacitating</b>	<b>7,108</b>	<b>6,871</b>	<b>5,733</b>	<b>5,839</b>	<b>6,174</b>	<b>7.88</b>	<b>8.99</b>	<b>1.11</b>
Drivers	4,929	4,777	3,975	3,948	4,271	5.33	6.22	0.89
Vehicle passengers	2,120	2,040	1,712	1,818	1,835	2.45	2.67	0.22
Non-motorists	59	54	46	73	68	0.10	0.10	< 0.01
	<b>Speed-related injuries as % total, by injury status</b>							
Fatal	21.9%	24.4%	19.4%	20.8%	27.6%			
Incapacitating	14.2%	16.1%	15.9%	15.3%	17.3%			
Non-incapacitating	12.3%	12.4%	11.2%	12.0%	13.6%			

**Notes:**

See glossary for definition of *speed-related*.

*Non-fatal injury* collisions are those with no fatalities and at least one *incapacitating*, *non-incapacitating*, or *possible* injury.

*Non-incapacitating* includes *non-incapacitating* and *possible* injury status codes.

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

Indiana Department of Transportation, as of April 15, 2009

- Per 100m VMT, at all severity levels collisions involving a vehicle disregarding a signal decreased from 2007 to 2008.
- Per 100m VMT, fatalities in collisions involving a vehicle disregarding a signal decreased by 0.01 from 2007 to 2008.
- In 2008, two percent of all fatalities were in collisions involving vehicles disregarding a signal.

**Table 17. Disregarding a traffic signal collisions in Indiana and individuals involved, 2004-2008**

	2004	2005	2006	2007	2008	Per 100m VMT		
						2007	2008	Change ('07-'08)
<b>Collisions</b>	<b>5,115</b>	<b>4,517</b>	<b>2,855</b>	<b>4,797</b>	<b>4,343</b>	<b>6.47</b>	<b>6.32</b>	<b>-0.15</b>
Fatal	17	12	15	23	16	0.03	0.02	- < 0.01
Non-fatal injury	2,062	1,859	1,149	1,772	1,590	2.39	2.31	-0.08
Property damage	3,036	2,646	1,691	3,002	2,737	4.05	3.98	-0.07
<b>Injuries</b>	<b>3,381</b>	<b>3,044</b>	<b>1,903</b>	<b>2,905</b>	<b>2,559</b>	<b>3.92</b>	<b>3.73</b>	<b>-0.20</b>
<b>Fatal</b>	<b>18</b>	<b>13</b>	<b>15</b>	<b>27</b>	<b>16</b>	<b>0.04</b>	<b>0.02</b>	<b>-0.01</b>
Drivers	14	9	13	18	12	0.02	0.02	< 0.01
Vehicle passengers	4	4	2	8	4	0.01	< 0.01	< 0.01
Non-motorists	0	0	0	1	0	< 0.01	0.00	0.00
<b>Incapacitating</b>	<b>218</b>	<b>142</b>	<b>100</b>	<b>155</b>	<b>162</b>	<b>0.21</b>	<b>0.24</b>	<b>0.03</b>
Drivers	155	95	64	114	109	0.15	0.16	< 0.01
Vehicle passengers	60	46	36	39	53	0.05	0.08	0.02
Non-motorists	3	1	0	2	0	< 0.01	0.00	0.00
<b>Non-incapacitating</b>	<b>3,145</b>	<b>2,889</b>	<b>1,788</b>	<b>2,723</b>	<b>2,381</b>	<b>3.68</b>	<b>3.47</b>	<b>-0.21</b>
Drivers	2,223	2,021	1,250	1,895	1,683	2.56	2.45	-0.11
Vehicle passengers	908	863	532	809	680	1.09	0.99	-0.10
Non-motorists	14	5	6	19	18	0.03	0.03	< 0.01
<b>Disregarding a signal injuries as % total, by injury status</b>								
Fatal	1.9%	1.4%	1.7%	3.0%	2.0%			
Incapacitating	5.5%	3.7%	2.6%	4.2%	4.8%			
Non-incapacitating	5.5%	5.2%	3.5%	5.6%	5.2%			

**Notes:**

See glossary for definition of *disregarding a traffic signal*.

Non-fatal injury collisions are those with no fatalities and at least one *incapacitating, non-incapacitating, or possible* injury.

*Non-incapacitating* includes *non-incapacitating* and *possible* injury status codes.

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

Indiana Department of Transportation, as of April 15, 2009

- In 2008, 3.6 percent of all fatalities were in hit-and-run collisions, the highest level since 2005.
- Per 100m VMT, all injury types in hit-and-run collisions increased from 2007 to 2008.

**Table 18. Hit-and-run collisions in Indiana and individuals involved, 2004-2008**

	2004	2005	2006	2007	2008	Per 100m VMT		
						2007	2008	Change ('07-'08)
<b>Hit-and-run collisions</b>	<b>28,349</b>	<b>27,450</b>	<b>23,924</b>	<b>25,220</b>	<b>25,121</b>	<b>34.04</b>	<b>36.57</b>	<b>2.53</b>
Fatal	34	34	27	19	26	0.03	0.04	0.01
Non-fatal injury	2,680	2,559	2,131	2,055	1,982	2.77	2.89	0.11
Property damage only	25,635	24,857	21,766	23,146	23,113	31.24	33.65	2.41
<b>Injuries</b>	<b>3,466</b>	<b>3,222</b>	<b>2,665</b>	<b>2,598</b>	<b>2,442</b>	<b>3.51</b>	<b>3.56</b>	<b>0.05</b>
<b>Fatal</b>	<b>35</b>	<b>36</b>	<b>27</b>	<b>19</b>	<b>29</b>	<b>0.03</b>	<b>0.04</b>	<b>0.02</b>
Drivers	16	13	11	5	7	< 0.01	0.01	< 0.01
Vehicle passengers	6	7	5	2	9	< 0.01	0.01	0.01
Non-motorists	13	16	11	12	13	0.02	0.02	< 0.01
<b>Incapacitating</b>	<b>196</b>	<b>207</b>	<b>173</b>	<b>138</b>	<b>146</b>	<b>0.19</b>	<b>0.21</b>	<b>0.03</b>
Drivers	104	95	77	59	70	0.08	0.10	0.02
Vehicle passengers	53	63	49	36	28	0.05	0.04	< 0.01
Non-motorists	39	49	47	43	48	0.06	0.07	0.01
<b>Non-incapacitating</b>	<b>3,235</b>	<b>2,979</b>	<b>2,465</b>	<b>2,441</b>	<b>2,267</b>	<b>3.29</b>	<b>3.30</b>	<b>&lt; 0.01</b>
Drivers	2,044	1,963	1,529	1,459	1,374	1.97	2.00	0.03
Vehicle passengers	844	734	606	649	557	0.88	0.81	-0.07
Non-motorists	347	282	330	333	336	0.45	0.49	0.04
	<b>Hit-and-run injuries as % total, by injury status</b>							
Fatal	3.7%	3.8%	3.0%	2.1%	3.6%			
Incapacitating	4.9%	5.4%	4.5%	3.8%	4.3%			
Non-incapacitating	5.6%	5.4%	4.8%	5.0%	5.0%			

**Notes:**

*Non-fatal injury* collisions are those with no fatalities and at least one *incapacitating*, *non-incapacitating*, or *possible* injury. *Non-incapacitating* includes *non-incapacitating* and *possible* injury status codes.

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Indiana Department of Transportation, as of April 15, 2009

- Since 2006, fatalities in hit-and-run collisions were more likely to occur in urban areas than in rural areas.
- In general, fatalities in all other collision types listed, with the exception of disregarding a traffic signal, were more likely in rural areas.
- The incidence of rural alcohol-related and speed-related fatalities decreased 13.2 percentage points each from 2007 to 2008, the largest drop of all collision types.

**Table 19. Traffic fatalities in Indiana, by collision type and locality, 2004-2008**

Collision type/locality	2004	2005	2006	2007	2008
<b>ALL</b>	<b>947</b>	<b>938</b>	<b>899</b>	<b>898</b>	<b>815</b>
Rural	693	688	648	636	524
Urban	254	250	251	262	291
% Rural	73.2%	73.3%	72.1%	70.8%	64.3%
<b>Alcohol-related</b>	<b>284</b>	<b>293</b>	<b>274</b>	<b>254</b>	<b>246</b>
Rural	193	205	197	176	138
Urban	91	88	77	78	108
% Rural	68.0%	70.0%	71.9%	69.3%	56.1%
<b>Aggressive driving</b>	<b>32</b>	<b>26</b>	<b>14</b>	<b>21</b>	<b>29</b>
Rural	20	20	10	9	15
Urban	12	6	4	12	14
% Rural	62.5%	76.9%	71.4%	42.9%	51.7%
<b>Speed-related</b>	<b>207</b>	<b>229</b>	<b>174</b>	<b>187</b>	<b>225</b>
Rural	144	176	119	131	128
Urban	63	53	55	56	97
% Rural	69.6%	76.9%	68.4%	70.1%	56.9%
<b>Disregard signal</b>	<b>18</b>	<b>13</b>	<b>15</b>	<b>27</b>	<b>16</b>
Rural	6	5	4	8	3
Urban	12	8	11	19	13
% Rural	33.3%	38.5%	26.7%	29.6%	18.8%
<b>Hit-and-run</b>	<b>35</b>	<b>36</b>	<b>27</b>	<b>19</b>	<b>29</b>
Rural	15	21	12	7	13
Urban	20	15	15	12	16
% Rural	42.9%	58.3%	44.4%	36.8%	44.8%

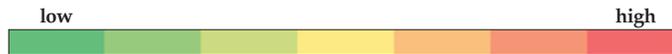
**Note:**

Rural collisions are those that occurred outside the incorporated limits of a city.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In general, December has the highest frequency of collisions of all months.
- Fatal collisions were generally most likely in warm weather months.



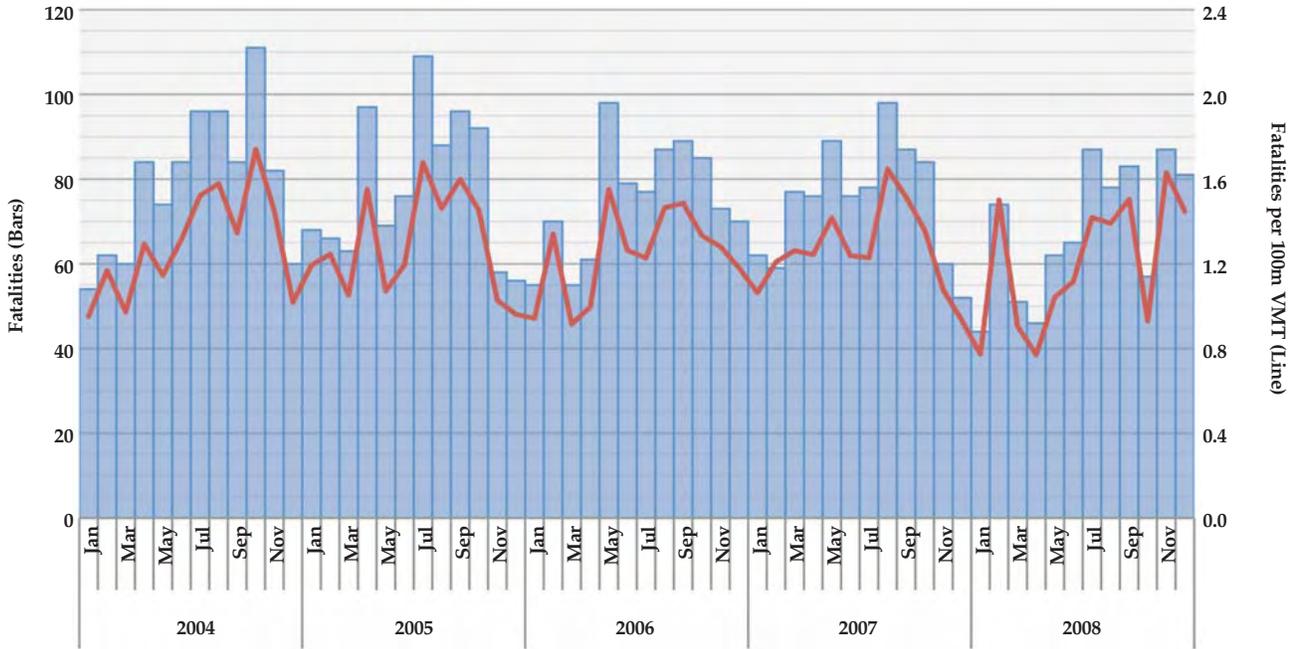
**Table 20. Indiana traffic collisions, by month, 2004-2008**

Month	Total collisions					Fatal collisions				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
January	18,942	20,056	15,529	18,023	18,769	50	60	55	59	43
February	15,464	15,364	14,310	19,743	20,656	57	62	64	52	66
March	15,162	16,240	14,994	15,573	15,641	55	59	51	67	47
April	15,694	15,497	15,151	14,778	14,263	73	85	48	62	39
May	17,735	16,767	16,778	15,819	16,044	68	66	87	86	54
June	17,065	16,993	16,266	15,104	15,470	75	71	75	70	60
July	16,710	16,416	15,193	15,440	14,804	89	96	66	70	75
August	16,781	16,781	15,763	16,355	14,877	84	73	79	86	76
September	16,182	15,507	15,672	16,068	14,793	75	90	80	77	73
October	18,917	17,528	18,486	18,242	17,252	104	88	78	75	56
November	19,765	19,481	18,084	19,054	18,662	72	54	72	56	75
December	20,265	21,729	16,495	20,800	24,220	55	51	62	44	58
<b>Annual</b>	<b>208,682</b>	<b>208,359</b>	<b>192,721</b>	<b>204,999</b>	<b>205,451</b>	<b>857</b>	<b>855</b>	<b>817</b>	<b>804</b>	<b>722</b>
Monthly average	17,390	17,363	16,060	17,083	17,121	71	71	68	67	60
High month	December	December	October	December	December	October	July	May	May	August
Low month	March	February	February	April	April	January	December	April	December	April

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- On average, there were 75 fatalities or 1.3 traffic fatalities per 100m VMT per month since 2004.
- The highest fatality rate in the last five years (1.7 per 100m VMT) occurred in October 2004.
- The lowest fatality rate in the last five years (0.8 per 100m VMT) occurred in January and April 2008.

Figure 8. Indiana traffic fatalities per 100m vehicle miles travelled (VMT), by month, 2004-2008



Sources:  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Federal Highway Administration, *Traffic Volume Trends*; accessed June 23, 2009 at <http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm>

- On average since 2004, July 4th has had the highest proportion of alcohol-related fatal collisions (50.5 percent).
- The highest number of alcohol-related fatal collisions of any holiday in the last five years was Labor Day, 2005 (9).
- The highest number of fatalities of any holiday in the last five years was July 4th, 2005 (19).

**Table 21. Fatal collisions and fatalities on legal holidays, by alcohol involvement, 2004-2008**

Holiday/Year	Effective holiday date range		Fatal collisions			Fatalities		
	Begin	End	Total	Alcohol-related	% alcohol-related	Total	Alcohol-related	% alcohol-related
<b>New Year's</b>								
2004	Wed, 12/31/03	Mon, 1/5/04	8	1	12.5%	9	1	11.1%
2005	Fri, 12/31/04	Mon, 1/3/05	1	1	100.0%	1	1	100.0%
2006	Fri, 12/30/05	Mon, 1/2/06	5	2	40.0%	5	2	40.0%
2007	Fri, 12/29/06	Tue, 1/2/07	12	4	33.3%	12	4	33.3%
2008	Fri, 12/28/07	Wed, 1/2/08	6	1	16.7%	7	1	14.3%
<b>Memorial Day</b>								
2004	Fri, 5/28	Tue, 6/1	9	5	55.6%	11	7	63.6%
2005	Fri, 5/27	Tue, 5/31	10	6	60.0%	10	6	60.0%
2006	Fri, 5/26	Tue, 5/30	11	4	36.4%	12	4	33.3%
2007	Fri, 5/25	Tue, 5/29	8	4	50.0%	9	5	55.6%
2008	Fri, 5/23	Tue, 5/27	6	2	33.3%	6	2	33.3%
<b>July 4th</b>								
2004	Fri, 7/2	Mon, 7/5	8	7	87.5%	9	7	77.8%
2005	Fri, 7/1	Tue, 7/5	17	5	29.4%	19	6	31.6%
2006	Fri, 6/30	Wed, 7/5	13	5	38.5%	15	5	33.3%
2007	Tue, 7/3	Thu, 7/5	2	1	50.0%	2	1	50.0%
2008	Thu, 7/3	Mon, 7/7	5	3	60.0%	5	3	60.0%
<b>Labor Day</b>								
2004	Fri, 9/3	Tue, 9/7	8	0	0.0%	8	0	0.0%
2005	Fri, 9/2	Tue, 9/6	15	9	60.0%	16	9	56.3%
2006	Fri, 9/1	Tue, 9/5	12	5	41.7%	13	5	38.5%
2007	Fri, 8/31	Tue, 9/4	9	2	22.2%	11	2	18.2%
2008	Fri, 8/29	Tue, 9/2	9	7	77.8%	9	7	77.8%
<b>Thanksgiving</b>								
2004	Wed, 11/24	Mon, 11/29	15	7	46.7%	17	7	41.2%
2005	Wed, 11/23	Mon, 11/28	9	5	55.6%	10	5	50.0%
2006	Wed, 11/22	Mon, 11/27	11	5	45.5%	11	5	45.5%
2007	Wed, 11/21	Mon, 11/26	8	2	25.0%	10	2	20.0%
2008	Wed, 11/26	Mon, 12/1	12	8	66.7%	15	11	73.3%
<b>Christmas</b>								
2004	Fri, 12/24	Mon, 12/27	1	0	0.0%	1	0	0.0%
2005	Fri, 12/23	Mon, 12/26	4	0	0.0%	5	0	0.0%
2006	Fri, 12/22	Tue, 12/26	6	5	83.3%	8	5	62.5%
2007	Fri, 12/21	Wed, 12/26	7	2	28.6%	9	2	22.2%
2008	Wed, 12/24	Mon, 12/29	8	3	37.5%	13	4	30.8%

**Notes:**  
 Holiday ranges begin at 6pm of the first day and end at 5:59am of the last day.  
 Data limited to collisions with valid date and time, as marked on the crash report.

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

# COLLISIONS



## COLLISIONS, 2008

This section provides an analysis of Indiana crashes in 2008, based on various parameters that describe the conditions and circumstances of those collisions as marked by the reporting officer. Collision data are categorized by the most severe injury involved (i.e., *fatal* collisions involve at least one fatality; *inca-pacitating* collisions involve no fatalities but at least one inca-pacitating injury; etc.). Included are analyses by contributing circumstances, ambient conditions, road characteristics, time, date, location, road type, and manner of collision. Estimated economic costs associated with traffic collisions are also estimated. See Appendix A for details on cost methodologies.

### HIGHLIGHTS

In 2008, there were 205,451 collisions in Indiana, a 0.2 percent increase from 2007 (204,999). Additionally, there were 722 fatal collisions, down 10.2 percent from 2007 (804).

Fatal collisions (722) comprised 0.4 percent of all collisions. In general, fatalities and non-fatal injuries were most likely in collisions involving motorcycles, mopeds, and non-motorists.

Collisions involving motorcycles/mopeds were at least 3.7 times more likely to have resulted in a fatality than collisions involving any other vehicle type.

Driver-related factors accounted for 81 percent of all collisions and 94 percent of fatal collisions. Proportional to all fatal collisions, *ran off road right* was listed as the most common primary factor. Collisions with *pedestrian action* or *wrong way on one way* as the primary factor were most likely to have resulted in a fatality.

Collisions with *ran off road* as the manner of collision accounted for 14 percent of all collisions and 30.7 percent of fatal collisions in 2008. *Alcohol-related* and *hit-and-run* collisions were most likely to have occurred from 12a - 5:59a on Saturdays and Sundays. *Aggressive driving* collisions were most likely to have occurred from 12p - 5:59p.

*Local/city* roads had the highest collision and fatal collision rates of any road class.

Economic costs associated with traffic collisions in 2008 totaled \$4.69 billion. Alcohol-related fatalities comprised 30.2 percent of all collision costs and 54 percent of alcohol-related collision costs.

- Collisions involving non-motorists were over 53 times more likely to have resulted in a fatality than collisions without non-motorists.
- Nearly 5 percent of collisions that involved an alcohol-impaired driver resulted in a fatality.
- Whereas only 4.6 percent of total collisions were alcohol-related, 30.2 percent of fatal collisions were alcohol-related.

Table 22. Indiana traffic collisions, by collision type and severity, 2008

Collision type	Count of collisions, by severity				Fatal, as % total	Fatal collision risk-factor
	Total	Fatal	Non-fatal injury	Property damage only		
<b>TOTAL</b>	<b>205,451</b>	<b>722</b>	<b>35,358</b>	<b>169,371</b>	<b>0.4%</b>	<b>--</b>
Nighttime (6p - 5:59a)	66,043	338	11,120	54,585	0.5%	1.9
Weekend (Fri 6p - Mon 5:59a)	56,942	256	10,381	46,305	0.4%	1.4
Rural	72,778	457	13,082	59,239	0.6%	3.1
Alcohol-related	9,411	218	3,225	5,968	2.3%	9.0
Alcohol-impaired	3,394	155	878	2,361	4.6%	16.3
Speed-related	22,819	188	4,711	17,920	0.8%	2.8
Aggressive driving	3,007	23	801	2,183	0.8%	2.2
Motorcycle/moped involved	3,822	125	2,646	1,051	3.3%	11.0
Light truck involved	103,052	320	17,567	85,165	0.3%	0.8
Large truck involved	13,266	117	1,130	12,019	0.9%	2.8
Young driver involved	1,010	17	129	864	1.7%	4.9
Children involved	181	11	62	108	6.1%	17.5
Non-motorist involved	54	10	38	6	18.5%	53.4
<b>As % total</b>						
Nighttime	32.1%	46.8%	31.4%	32.2%		
Weekend	27.7%	35.5%	29.4%	27.3%		
Rural	35.4%	63.3%	37.0%	35.0%		
Alcohol-related	4.6%	30.2%	9.1%	3.5%		
Alcohol-impaired	1.7%	21.5%	2.5%	1.4%		
Speed-related	11.1%	26.0%	13.3%	10.6%		
Aggressive driving	1.5%	3.2%	2.3%	1.3%		
Motorcycle/moped involved	1.9%	17.3%	7.5%	0.6%		
Light truck involved	50.2%	44.3%	49.7%	50.3%		
Large truck involved	6.5%	16.2%	3.2%	7.1%		
Young driver involved	0.5%	2.4%	0.4%	0.5%		
Children involved	0.1%	1.5%	0.2%	0.1%		
Non-motorist involved	0.0%	1.4%	0.1%	0.0%		

**Notes:**

See glossary for definitions of *alcohol-related*, *alcohol-impaired*, *speed-related*, *light truck*, and *large truck*.

*Fatal collision risk factor* defined as ratio of *fatal, as % total* for collision type to *fatal, as % total* for collisions not involving that characteristic.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- *Failure to yield right of way, following too closely, and (avoiding) animal on the roadway* were the most common - primary factors in Indiana collisions in 2008.
- Driver-related factors accounted for 81 percent of all collisions and 94 percent of fatal collisions.
- Proportional to all fatal collisions, *ran off road right* was listed as the most common primary factor.
- Proportional to factor totals, *pedestrian action* and *wrong way on one way* were most likely to have resulted in a fatality.

**Table 23. Indiana traffic collisions and injuries, by primary factor and collision severity, 2008**

	Collisions					Injuries			
	Factor total	As % all collisions	Fatal	As % all fatal collisions	As % factor total	Non-fatal injury	Property damage only	Fatal	Non-fatal
<b>All collisions</b>	<b>205,451</b>	<b>100%</b>	<b>722</b>	<b>100%</b>	<b>0.4%</b>	<b>35,358</b>	<b>169,371</b>	<b>815</b>	<b>48,837</b>
<b>Driver</b>	<b>165,718</b>	<b>80.7%</b>	<b>678</b>	<b>93.9%</b>	<b>0.4%</b>	<b>31,695</b>	<b>133,345</b>	<b>767</b>	<b>44,119</b>
Failure to yield right of way	30,309	14.8%	83	11.5%	0.3%	7,282	22,944	98	10,844
Following too closely	25,725	12.5%	10	1.4%	< 0.1%	4,460	21,255	10	6,005
Unsafe backing	16,354	8.0%	1	0.1%	< 0.1%	299	16,054	1	339
Speed too fast for weather conditions	12,355	6.0%	38	5.3%	0.3%	1,990	10,327	53	2,685
Ran off road right	11,586	5.6%	145	20.1%	1.3%	3,001	8,440	155	3,694
Driver distracted	7,139	3.5%	10	1.4%	0.1%	1,454	5,675	10	2,018
Disregard signal/reg sign	7,009	3.4%	40	5.5%	0.6%	2,470	4,499	48	4,018
Improper lane usage	6,917	3.4%	14	1.9%	0.2%	588	6,315	18	838
Improper turning	5,652	2.8%	6	0.8%	0.1%	456	5,190	6	610
Unsafe speed	4,752	2.3%	86	11.9%	1.8%	1,369	3,297	98	1,986
Alcoholic beverages	3,508	1.7%	19	2.6%	0.5%	1,093	2,396	21	1,436
Overcorrecting/oversteering	3,493	1.7%	25	3.5%	0.7%	794	2,674	26	1,053
Left of center	3,116	1.5%	81	11.2%	2.6%	890	2,145	98	1,601
Improper passing	2,007	1.0%	9	1.2%	0.4%	207	1,791	9	292
Driver asleep or fatigued	1,891	0.9%	6	0.8%	0.3%	589	1,296	6	761
Pedestrian action	1,047	0.5%	34	4.7%	3.2%	830	183	35	862
Driver illness	971	0.5%	8	1.1%	0.8%	519	444	9	606
Cell phone, other telematics	680	0.3%	1	0.1%	0.1%	157	522	1	202
Wrong way on one way	219	0.1%	7	1.0%	3.2%	58	154	8	117
Prescription drugs	142	0.1%	0	0.0%	0.0%	32	110	0	39
Illegal drugs	134	0.1%	2	0.3%	1.5%	56	76	2	87
Passenger distraction	122	0.1%	0	0.0%	0.0%	32	90	0	46
Ran off road left	102	< 0.1%	0	0.0%	0.0%	30	72	0	41
Jackknifing	91	< 0.1%	0	0.0%	0.0%	7	84	0	8
Violation of license restriction	22	< 0.1%	0	0.0%	0.0%	7	15	0	9
<b>Vehicle</b>	<b>5,011</b>	<b>2.4%</b>	<b>6</b>	<b>0.8%</b>	<b>0.1%</b>	<b>677</b>	<b>4,328</b>	<b>7</b>	<b>934</b>
Brake failure or defective	1,346	0.7%	1	0.1%	0.1%	269	1,076	1	376
Tire failure or defective	579	0.3%	1	0.1%	0.2%	91	487	1	143
Insecure/leaky load	370	0.2%	0	0.0%	0.0%	19	351	0	26
Steering failure	212	0.1%	0	0.0%	0.0%	39	173	0	47
Accelerator failure or defective	171	0.1%	1	0.1%	0.6%	41	129	1	55
Engine failure or defective	166	0.1%	0	0.0%	0.0%	13	153	0	19
Oversize/overweight load	151	0.1%	0	0.0%	0.0%	6	145	0	16
Tow hitch failure	92	< 0.1%	0	0.0%	0.0%	3	89	0	8
Headlight defective or not on	62	< 0.1%	0	0.0%	0.0%	22	40	0	34
Other lights defective	26	< 0.1%	0	0.0%	0.0%	2	24	0	3
Window/windshield defective	11	< 0.1%	0	0.0%	0.0%	1	10	0	1
<b>Environment</b>	<b>33,472</b>	<b>16.3%</b>	<b>36</b>	<b>5.0%</b>	<b>0.1%</b>	<b>2,948</b>	<b>30,488</b>	<b>39</b>	<b>3,742</b>
Animal on roadway	19,217	9.4%	5	0.7%	< 0.1%	900	18,312	5	1,084
Roadway surface condition	10,773	5.2%	18	2.5%	0.2%	1,515	9,240	20	1,961
View obstructed	709	0.3%	0	0.0%	0.0%	112	597	0	141
Glare	450	0.2%	4	0.6%	0.9%	82	364	5	115
Holes/ruts in surface	140	0.1%	0	0.0%	0.0%	25	115	0	29
Obstruction not marked	128	0.1%	0	0.0%	0.0%	15	113	0	23
Severe crosswinds	115	0.1%	0	0.0%	0.0%	16	99	0	16
Traffic control problem	66	< 0.1%	0	0.0%	0.0%	22	44	0	40
Road under construction	64	< 0.1%	0	0.0%	0.0%	8	56	0	11
Utility work	15	< 0.1%	0	0.0%	0.0%	0	15	0	0
Lane marking obscured	13	< 0.1%	0	0.0%	0.0%	0	13	0	0
Shoulder defective	10	< 0.1%	0	0.0%	0.0%	4	6	0	5

**Notes:**

Factor-categorical totals include collisions where primary factor not identified or marked as *other*; therefore, primary factors may not add to factor - categorical subtotals.

*Non-fatal injury* collisions are those with no fatalities and at least one *incapacitating, non-incapacitating, or possible* injury type.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- By weather condition, a fatal collision was most likely when *fog/smoke/smog* was present (1.6 percent of all collisions with that weather type).
- By light condition, a fatal collision was most likely when the light condition was *dark (not lighted)*.
- In 2008, 51.2 percent of all fatal collisions occurred in *daylight* conditions.

Table 24. Indiana traffic collisions and injuries, by ambient conditions and collision severity, 2008

Conditions	Collisions						Injuries		
	Condition total	As % all collisions	Fatal collisions	As % all fatal collisions	As % condition total	Non-fatal injury	Property damage only	Fatal	Non-fatal
<b>All collisions</b>	<b>205,451</b>	<b>100%</b>	<b>722</b>	<b>100%</b>	<b>0.4%</b>	<b>35,358</b>	<b>169,371</b>	<b>815</b>	<b>48,837</b>
<b>By weather condition</b>									
Clear	115,039	56.0%	457	63.3%	0.4%	20,783	93,799	504	28,761
Cloudy	44,752	21.8%	134	18.6%	0.3%	7,503	37,115	152	10,418
Rain	19,858	9.7%	54	7.5%	0.3%	3,493	16,311	66	4,885
Snow	12,844	6.3%	25	3.5%	0.2%	1,704	11,115	28	2,214
Sleet/hail/freezing rain	7,236	3.5%	22	3.0%	0.3%	1,087	6,127	27	1,453
Blowing sand/soil/snow	3,736	1.8%	10	1.4%	0.3%	506	3,220	14	723
Fog/smoke/smog	1,146	0.6%	18	2.5%	1.6%	209	919	22	294
Severe crosswind	408	0.2%	2	0.3%	0.5%	68	338	2	84
Unknown	432	0.2%	0	0.0%	0.0%	5	427	0	5
<b>By light condition</b>									
Daylight	131,967	64.2%	370	51.2%	0.3%	24,016	107,581	417	33,294
Dark (not lighted)	32,972	16.0%	236	32.7%	0.7%	4,944	27,792	269	6,729
Dark (lighted)	28,951	14.1%	87	12.0%	0.3%	4,740	24,124	97	6,585
Dawn/dusk	10,146	4.9%	29	4.0%	0.3%	1,637	8,480	32	2,206
Unknown	1,415	0.7%	0	0.0%	0.0%	21	1,394	0	18
<b>By surface condition</b>									
Dry	137,388	66.9%	541	74.9%	0.4%	24,901	111,946	599	34,569
Wet	31,689	15.4%	96	13.3%	0.3%	5,480	26,113	115	7,588
Ice	18,529	9.0%	45	6.2%	0.2%	2,648	15,836	59	3,580
Snow/slush	15,340	7.5%	30	4.2%	0.2%	1,878	13,432	32	2,486
Loose material on road	1,043	0.5%	4	0.6%	0.4%	263	776	4	346
Water (standing or moving)	877	0.4%	4	0.6%	0.5%	148	725	4	218
Muddy	173	0.1%	0	0.0%	0.0%	29	144	0	37
Unknown	412	0.2%	2	0.3%	0.5%	11	399	2	13

**Note:**  
Non-fatal includes *incapacitating, non-incapacitating, and possible* injury categories.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Nearly 45 percent of all collisions occurred on *local/city roads*.
- Seventy-four percent of all fatal collisions occurred at road segments with no junction.
- A collision was 2.5 times more likely to have resulted in a fatality when it occurred on a *curved road* (0.8 percent) versus a *straight road* (0.3 percent).

Table 25. Indiana traffic collisions and injuries, by road characteristics and collision severity, 2008

Road characteristic	Collisions						Injuries		
	Characteristic total	As % all collisions	Fatal collisions	As % all fatal collisions	As % characteristic total	Non-fatal injury	Property damage only	Fatal	Non-fatal
<b>All collisions</b>	<b>205,451</b>	<b>100%</b>	<b>722</b>	<b>100%</b>	<b>0.4%</b>	<b>35,358</b>	<b>169,371</b>	<b>815</b>	<b>48,837</b>
<b>By road class</b>									
Local/city	91,696	44.6%	195	27.0%	0.2%	16,690	74,811	216	22,378
State	29,982	14.6%	173	24.0%	0.6%	6,102	23,707	193	8,989
County	27,095	13.2%	162	22.4%	0.6%	5,234	21,699	179	7,177
Unknown road class	22,609	11.0%	8	1.1%	< 0.1%	1,301	21,300	9	1,513
US route	19,109	9.3%	115	15.9%	0.6%	3,977	15,017	135	5,919
Interstate	14,960	7.3%	69	9.6%	0.5%	2,054	12,837	83	2,861
<b>By junction type</b>									
No junction involved	138,922	67.6%	534	74.0%	0.4%	21,242	117,146	606	28,703
Four-way intersection	39,752	19.3%	104	14.4%	0.3%	9,310	30,338	118	13,627
T-intersection	20,972	10.2%	58	8.0%	0.3%	3,792	17,122	65	5,172
Ramp	3,232	1.6%	13	1.8%	0.4%	521	2,698	13	639
Interchange	766	0.4%	2	0.3%	0.3%	160	604	2	222
Y-intersection	731	0.4%	5	0.7%	0.7%	159	567	5	220
Five point or more	563	0.3%	5	0.7%	0.9%	136	422	5	209
Traffic circle/roundabout	398	0.2%	0	0.0%	0.0%	34	364	0	40
Unknown	115	0.1%	1	0.1%	0.9%	4	110	1	5
<b>By road character</b>									
Straight	178,172	86.7%	551	76.3%	0.3%	30,575	147,046	622	42,522
Level	147,019	71.6%	415	57.5%	0.3%	25,040	121,564	464	34,805
Graded	24,517	11.9%	110	15.2%	0.4%	4,344	20,063	132	6,029
Hillcrest	6,636	3.2%	26	3.6%	0.4%	1,191	5,419	26	1,688
Curved	21,226	10.3%	167	23.1%	0.8%	4,444	16,615	188	5,930
Level	12,455	6.1%	104	14.4%	0.8%	2,603	9,748	119	3,496
Graded	7,342	3.6%	51	7.1%	0.7%	1,579	5,712	54	2,075
Hillcrest	1,429	0.7%	12	1.7%	0.8%	262	1,155	15	359
Non-roadway crash	5,861	2.9%	4	0.6%	0.1%	326	5,531	5	371
Unknown	192	0.1%	0	0.0%	0.0%	13	179	0	14

**Note:**

Non-fatal includes *incapacitating, non-incapacitating, and possible* injury categories.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- *Ran off road* as the manner of collision accounted for 13.9 percent of all collisions and 30.7 percent of fatal collisions in 2008.
- *Ran off road* and *head on* collisions were most likely to have resulted in a fatality (0.8 percent for each).

Table 26. Indiana traffic collisions and injuries, by manner of collision and collision severity, 2008

Manner of collision	Collisions						Injuries		
	Manner total	As % all collisions	Fatal collisions	As % all fatal collisions	As % manner total	Non-fatal injury	Property damage only	Fatal	Non-fatal
<b>All collisions</b>	<b>205,451</b>	<b>100%</b>	<b>722</b>	<b>100%</b>	<b>0.4%</b>	<b>35,358</b>	<b>169,371</b>	<b>815</b>	<b>48,837</b>
Rear end	44,787	21.8%	57	7.9%	0.1%	8,452	36,278	59	11,801
Right angle	34,513	16.8%	150	20.8%	0.4%	7,985	26,378	183	12,089
Ran off road	28,512	13.9%	222	30.7%	0.8%	6,964	21,326	246	8,719
Head on	22,459	10.9%	178	24.7%	0.8%	4,033	18,248	205	5,820
Backing	19,343	9.4%	1	0.1%	< 0.1%	419	18,923	1	462
Same direction sideswipe	18,850	9.2%	22	3.0%	0.1%	1,244	17,584	23	1,533
Left turn	9,954	4.8%	18	2.5%	0.2%	2,238	7,698	18	3,279
Opposite direction sideswipe	5,469	2.7%	12	1.7%	0.2%	645	4,812	15	891
Non-collision	3,072	1.5%	15	2.1%	0.5%	799	2,258	16	949
Right turn	2,858	1.4%	1	0.1%	< 0.1%	312	2,545	1	384
Left/right turn	2,456	1.2%	3	0.4%	0.1%	318	2,135	3	442
Rear to rear	420	0.2%	0	0.0%	0.0%	52	368	0	70
Unknown/other	12,758	6.2%	43	6.0%	0.3%	1,897	10,818	45	2,398

**Note:**  
Non-fatal includes *incapacitating*, *non-incapacitating*, and *possible* injury categories.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Nearly 72 percent of all collisions and 59 percent of fatal collisions involved passenger cars.
- Collisions involving motorcycles/mopeds were at least 3.7 times more likely to have resulted in a fatality than collisions involving any other vehicle type.
- By vehicle type, collisions involving motorcycles/mopeds or non-motorists were most likely to have been a fatal collision.

Table 27. Indiana traffic collisions and injuries, by vehicle type involved and collision severity, 2008

Vehicle type involved	Collisions					Injuries			
	Vehicle involvement total	As % all collisions	Fatal collisions	As % all fatal collisions	As % vehicle involvement total	Non-fatal injury	Property damage only	Fatal	Non-fatal
<b>All collisions</b>	<b>205,451</b>	<b>100%</b>	<b>722</b>	<b>100%</b>	<b>0.4%</b>	<b>35,358</b>	<b>169,371</b>	<b>815</b>	<b>48,837</b>
Passenger car	147,468	71.8%	425	58.9%	0.3%	25,113	121,930	493	35,494
Motorcycle/moped	3,822	1.9%	125	17.3%	3.3%	2,646	1,051	133	3,084
Light truck	103,052	50.2%	320	44.3%	0.3%	17,567	85,165	358	25,124
Large truck	13,266	6.5%	117	16.2%	0.9%	1,130	12,019	144	1,574
Commercial vehicle	15,127	7.4%	119	16.5%	0.8%	1,300	13,708	146	1,961
Bus	1,892	0.9%	4	0.6%	0.2%	180	1,708	8	432
Non-motorist	2,874	1.4%	77	10.7%	2.7%	2,388	409	79	2,573

**Notes:**  
Non-fatal includes *incapacitating*, *non-incapacitating*, and *possible* injury categories.  
Vehicle type categories may overlap; consequently, sum of vehicle-type collisions/injuries will not equal total collisions/injuries.  
See glossary for specific vehicle type definitions.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Collisions at *railroad crossings* and sections with an *officer/crossing guard/flagman* had the highest likelihood of any traffic control type for being a fatal collision.
- *Lane control* collisions comprised 55 percent of fatal collisions with some type of traffic control (calculated from table).

**Table 28 Indiana traffic collisions and injuries, by traffic control type and collision severity, 2008**

Traffic control type	Collisions						Injuries		
	Type total	As % all collisions	Fatal collisions	As % all fatal collisions	As % type total	Non-fatal injury	Property damage only	Fatal	Non-fatal
<b>All collisions</b>	<b>205,451</b>	<b>100%</b>	<b>722</b>	<b>100%</b>	<b>0.4%</b>	<b>35,358</b>	<b>169,371</b>	<b>815</b>	<b>48,837</b>
None	89,405	43.5%	252	34.9%	0.3%	12,181	76,972	266	15,934
Lane control	50,456	24.6%	258	35.7%	0.5%	8,810	41,388	298	12,236
Traffic control signal	33,163	16.1%	53	7.3%	0.2%	7,431	25,679	56	10,650
Stop sign	20,336	9.9%	74	10.2%	0.4%	4,499	15,763	92	6,590
No passing zone	6,008	2.9%	53	7.3%	0.9%	1,367	4,588	61	1,869
Other regulatory sign/markings	1,456	0.7%	7	1.0%	0.5%	256	1,193	7	343
Flashing signal	1,339	0.7%	7	1.0%	0.5%	314	1,018	12	485
Yield sign	1,296	0.6%	2	0.3%	0.2%	223	1,071	4	328
Railroad crossing	453	0.2%	9	1.2%	2.0%	75	369	12	123
Officer/crossing guard/flagman	285	0.1%	5	0.7%	1.8%	67	213	5	98
Unknown	1,254	0.6%	2	0.3%	0.2%	135	1,117	2	181

**Note:**  
Non-fatal includes *incapacitating, non-incapacitating, and possible* injury categories.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, 1.9 percent (14 of 722) of fatal collisions were in a construction zone; 1.1 percent of all fatal collisions were in a school zone.
- Collisions in *lane closure* road sections had the highest likelihood of any construction zone for being a fatal collision.

**Table 29. Indiana traffic collisions and injuries, by special traffic sections and collision severity, 2008**

Traffic section type	Collisions					Injuries			
	Traffic section total	As % all collisions	Fatal collisions	As % all fatal collisions	As % traffic section total	Non-fatal injury	Property damage only	Fatal	Non-fatal
<b>All collisions</b>	<b>205,451</b>	<b>100%</b>	<b>722</b>	<b>100%</b>	<b>0.4%</b>	<b>35,358</b>	<b>169,371</b>	<b>815</b>	<b>48,837</b>
<b>In a construction zone</b>	<b>4,907</b>	<b>2.4%</b>	<b>14</b>	<b>1.9%</b>	<b>0.3%</b>	<b>835</b>	<b>4,058</b>	<b>14</b>	<b>1,182</b>
Lane closure	2,201	1.1%	8	1.1%	0.4%	391	1,802	8	554
Work on shoulder	910	0.4%	2	0.3%	0.2%	166	742	2	221
Intermittent or moving work	489	0.2%	1	0.1%	0.2%	88	400	1	128
Crossover/lane shift	373	0.2%	1	0.1%	0.3%	68	304	1	106
Unknown section type	934	0.5%	2	0.3%	0.2%	122	810	2	173
<b>In a school zone</b>	<b>6,232</b>	<b>3.0%</b>	<b>8</b>	<b>1.1%</b>	<b>0.1%</b>	<b>1,002</b>	<b>5,222</b>	<b>8</b>	<b>1,338</b>

**Note:**  
Non-fatal includes *incapacitating, non-incapacitating, and possible* injury categories.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In general, non-fatal collisions were most common during afternoon rush hour (3pm-5pm) on weekdays.
- Fatal collisions exhibit a random pattern but are generally most common during afternoon rush hour on weekdays and on Sunday morning (12am-2am).
- When considering collisions by day and hour, collisions that occurred at 2am on Wednesdays resulted in the highest percentage of fatal collisions in 2008 (seven of 288 total, or 2.4 percent).

**Table 30. Indiana traffic collisions, by day, time, and severity, 2008**

Collision severity/ day of week	<div style="display: flex; justify-content: space-around; align-items: center;"> <span>Low</span> <span>&lt;</span> <span>&lt;</span> <span>&gt;</span> <span>&gt;</span> <span>High</span> </div>											
	12am-	1am-	2am-	3am-	4am-	5am-	6am-	7am-	8am	9am-	10am-	11am-
<b>All collisions</b>	<b>3,945</b>	<b>2,977</b>	<b>2,696</b>	<b>2,834</b>	<b>2,533</b>	<b>3,861</b>	<b>6,510</b>	<b>11,369</b>	<b>9,094</b>	<b>7,895</b>	<b>8,754</b>	<b>10,435</b>
Monday	357	234	173	187	275	576	1,065	1,989	1,399	1,171	1,162	1,358
Tuesday	453	331	304	310	344	641	1,171	2,158	1,686	1,231	1,366	1,623
Wednesday	483	327	288	305	337	624	1,225	2,311	1,799	1,359	1,326	1,542
Thursday	410	311	278	288	283	524	994	1,964	1,393	1,117	1,158	1,443
Friday	525	416	359	385	391	662	1,122	1,919	1,495	1,377	1,533	1,833
Saturday	877	685	655	677	466	443	512	648	840	1,042	1,409	1,759
Sunday	840	673	639	682	437	391	421	380	482	598	800	877
<b>Fatal collisions</b>	<b>37</b>	<b>19</b>	<b>30</b>	<b>24</b>	<b>16</b>	<b>27</b>	<b>27</b>	<b>29</b>	<b>18</b>	<b>22</b>	<b>20</b>	<b>32</b>
Monday	2	3	2	0	1	2	6	3	3	4	2	4
Tuesday	4	3	1	1	1	4	6	3	2	4	1	6
Wednesday	4	0	7	2	1	6	4	4	4	3	4	6
Thursday	2	1	2	5	4	4	4	5	4	1	0	5
Friday	6	1	3	3	2	4	1	6	3	6	8	2
Saturday	8	1	7	8	5	3	2	3	2	4	4	7
Sunday	11	10	8	5	2	4	4	5	0	0	1	2
<b>Non-fatal injury collisions</b>	<b>657</b>	<b>560</b>	<b>434</b>	<b>483</b>	<b>367</b>	<b>564</b>	<b>930</b>	<b>1,862</b>	<b>1,389</b>	<b>1,291</b>	<b>1,490</b>	<b>1,779</b>
Monday	55	40	20	28	36	82	160	344	204	181	208	227
Tuesday	71	55	42	42	52	90	162	355	272	193	227	296
Wednesday	74	55	55	47	32	84	180	368	258	204	237	272
Thursday	67	63	44	48	28	65	119	318	216	194	177	238
Friday	71	70	56	64	65	90	182	306	209	212	233	281
Saturday	159	134	105	126	82	93	75	100	142	196	251	310
Sunday	160	143	112	128	72	60	52	71	88	111	157	155
<b>Property damage only collisions</b>	<b>3,251</b>	<b>2,398</b>	<b>2,232</b>	<b>2,327</b>	<b>2,150</b>	<b>3,270</b>	<b>5,553</b>	<b>9,478</b>	<b>7,687</b>	<b>6,582</b>	<b>7,244</b>	<b>8,624</b>
Monday	300	191	151	159	238	492	899	1,642	1,192	986	952	1,127
Tuesday	378	273	261	267	291	547	1,003	1,800	1,412	1,034	1,138	1,321
Wednesday	405	272	226	256	304	534	1,041	1,939	1,537	1,152	1,085	1,264
Thursday	341	247	232	235	251	455	871	1,641	1,173	922	981	1,200
Friday	448	345	300	318	324	568	939	1,607	1,283	1,159	1,292	1,550
Saturday	710	550	543	543	379	347	435	545	696	842	1,154	1,442
Sunday	669	520	519	549	363	327	365	304	394	487	642	720

**Notes:**  
Color comparisons are only valid within crash-severity categories.  
Excludes collisions with unknown day and/or time.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

12pm-	1pm-	2pm-	3pm-	4pm-	5pm-	6pm-	7pm-	8pm-	9pm	10pm-	11pm-	Total	% total
<b>11,899</b>	<b>11,599</b>	<b>13,084</b>	<b>17,103</b>	<b>15,938</b>	<b>15,673</b>	<b>12,145</b>	<b>8,974</b>	<b>7,632</b>	<b>7,503</b>	<b>6,152</b>	<b>4,791</b>	<b>205,396</b>	<b>100%</b>
1,566	1,532	1,825	2,545	2,369	2,409	1,722	1,244	1,047	989	789	558	28,541	13.9%
1,898	1,966	2,314	3,325	3,004	2,870	2,032	1,456	1,176	1,038	893	649	34,239	16.7%
1,735	1,651	1,902	2,719	2,473	2,422	1,806	1,137	1,073	987	739	564	31,134	15.2%
1,576	1,562	1,812	2,507	2,472	2,457	1,726	1,272	1,096	1,054	790	621	29,108	14.2%
2,045	1,975	2,348	3,216	2,873	2,772	2,168	1,558	1,204	1,323	1,179	911	35,589	17.3%
1,850	1,741	1,702	1,654	1,549	1,532	1,507	1,316	1,100	1,216	1,125	1,021	27,326	13.3%
1,229	1,172	1,181	1,137	1,198	1,211	1,184	991	936	896	637	467	19,459	9.5%
<b>30</b>	<b>27</b>	<b>37</b>	<b>48</b>	<b>54</b>	<b>40</b>	<b>28</b>	<b>30</b>	<b>38</b>	<b>31</b>	<b>35</b>	<b>23</b>	<b>722</b>	<b>100%</b>
7	3	4	9	7	6	5	5	6	7	2	3	96	13.3%
5	9	9	8	10	6	4	7	7	3	4	2	110	15.2%
4	5	3	6	11	4	5	2	1	6	4	3	99	13.7%
5	2	3	6	5	5	3	3	7	2	9	5	92	12.7%
3	3	7	11	5	5	2	5	3	7	8	3	107	14.8%
4	1	7	6	6	5	4	5	8	3	6	6	115	15.9%
2	4	4	2	10	9	5	3	6	3	2	1	103	14.3%
<b>2,052</b>	<b>2,163</b>	<b>2,396</b>	<b>3,147</b>	<b>2,865</b>	<b>2,870</b>	<b>2,090</b>	<b>1,525</b>	<b>1,331</b>	<b>1,255</b>	<b>1,034</b>	<b>820</b>	<b>35,354</b>	<b>100%</b>
263	293	368	466	465	399	280	203	187	197	144	89	4,939	14.0%
355	365	389	589	481	521	336	236	195	155	125	98	5,702	16.1%
287	284	319	487	458	433	294	218	197	167	118	96	5,224	14.8%
252	305	328	446	432	475	288	210	183	202	127	83	4,908	13.9%
328	341	414	543	508	489	399	247	215	221	190	163	5,897	16.7%
312	319	331	355	288	296	274	223	187	194	221	194	4,967	14.0%
255	256	247	261	233	257	219	188	167	119	109	97	3,717	10.5%
<b>9,817</b>	<b>9,409</b>	<b>10,651</b>	<b>13,908</b>	<b>13,019</b>	<b>12,763</b>	<b>10,027</b>	<b>7,419</b>	<b>6,263</b>	<b>6,217</b>	<b>5,083</b>	<b>3,948</b>	<b>169,320</b>	<b>100%</b>
1,296	1,236	1,453	2,070	1,897	2,004	1,437	1,036	854	785	643	466	23,506	13.9%
1,538	1,592	1,916	2,728	2,513	2,343	1,692	1,213	974	880	764	549	28,427	16.8%
1,444	1,362	1,580	2,226	2,004	1,985	1,507	917	875	814	617	465	25,811	15.2%
1,319	1,255	1,481	2,055	2,035	1,977	1,435	1,059	906	850	654	533	24,108	14.2%
1,714	1,631	1,927	2,662	2,360	2,278	1,767	1,306	986	1,095	981	745	29,585	17.5%
1,534	1,421	1,364	1,293	1,255	1,231	1,229	1,088	905	1,019	898	821	22,244	13.1%
972	912	930	874	955	945	960	800	763	774	526	369	15,639	9.2%

- Proportional to total collisions by month, alcohol-related collisions were least likely in winter months (December - February). Aggressive driving collisions were proportionally most likely during summer months.
- Speed-related collisions were proportionally most likely during winter months.
- The monthly variation in speed-related collisions (standard deviation = 7.1 percent) is over six times greater than the range of any other collision type shown.

**Table 31. Indiana traffic collisions, by month and collision type, 2008**

Month	Count of collisions						As percent monthly total				
	Monthly total	Alcohol-related	Aggressive driving	Speed-related	Disregard signal	Hit-and-run	Alcohol-related	Aggressive driving	Speed-related	Disregard signal	Hit-and-run
January	18,769	757	219	3,077	364	2,311	4.0%	1.2%	16.4%	1.9%	12.3%
February	20,656	767	224	4,806	404	2,319	3.7%	1.1%	23.3%	2.0%	11.2%
March	15,641	802	219	1,717	355	2,056	5.1%	1.4%	11.0%	2.3%	13.1%
April	14,263	771	236	752	353	1,883	5.4%	1.7%	5.3%	2.5%	13.2%
May	16,044	833	299	945	362	2,095	5.2%	1.9%	5.9%	2.3%	13.1%
June	15,470	756	293	827	372	2,011	4.9%	1.9%	5.3%	2.4%	13.0%
July	14,804	725	250	795	366	1,927	4.9%	1.7%	5.4%	2.5%	13.0%
August	14,877	828	254	747	307	2,011	5.6%	1.7%	5.0%	2.1%	13.5%
September	14,793	758	265	883	366	1,912	5.1%	1.8%	6.0%	2.5%	12.9%
October	17,252	805	273	863	408	2,015	4.7%	1.6%	5.0%	2.4%	11.7%
November	18,662	833	244	1,699	350	2,001	4.5%	1.3%	9.1%	1.9%	10.7%
December	24,220	776	231	5,708	336	2,580	3.2%	1.0%	23.6%	1.4%	10.7%
<b>Total</b>	<b>205,451</b>	<b>9,411</b>	<b>3,007</b>	<b>22,819</b>	<b>4,343</b>	<b>25,121</b>	<b>4.6%</b>	<b>1.5%</b>	<b>11.1%</b>	<b>2.1%</b>	<b>12.2%</b>
Mean	17,121	784	251	1,902	362	2,093	4.7%	1.5%	10.1%	2.2%	12.4%
Median	15,843	774	247	914	363	2,013	4.9%	1.6%	5.9%	2.3%	13.0%
Std deviation	2,986	35	27	1,717	27	207	0.7%	0.3%	7.1%	0.3%	1.0%

**Note:**  
Color comparisons are only valid within crash-type categories.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The highest percentage of *alcohol-related* and *hit-and-run* collisions occurred from 12a - 5:59a on Saturdays and Sundays.
- The highest percentage of *aggressive driving* collisions occurred from 12p - 5:59p.
- The highest percentage of *speed-related* collisions occurred on Tuesdays.
- Collisions involving vehicles *disregarding a signal* were most likely to have occurred on Sundays.

**Table 32. Indiana traffic collisions, by day, hour, and collision type, 2008**

		Low < < > > High										
Day	Time	Count of collisions					As % day/time total					
		Day/time total	Alcohol-related	Aggressive driving	Speed-related	Disregard signal	Hit-and-run	Alcohol-related	Aggressive driving	Speed-related	Disregard signal	Hit-and-run
M	12a - 5:59a	1,802	154	14	205	13	314	8.5%	0.8%	11.4%	0.7%	17.4%
	6a - 11:59a	8,144	45	93	1,049	204	656	0.6%	1.1%	12.9%	2.5%	8.1%
	12p - 5:59p	12,246	180	235	967	280	1,254	1.5%	1.9%	7.9%	2.3%	10.2%
	6p - 11:59p	6,349	414	74	843	134	921	6.5%	1.2%	13.3%	2.1%	14.5%
Tu	12a - 5:59a	2,383	298	21	412	31	458	12.5%	0.9%	17.3%	1.3%	19.2%
	6a - 11:59a	9,235	69	123	1,430	220	712	0.7%	1.3%	15.5%	2.4%	7.7%
	12p - 5:59p	15,377	191	240	2,190	299	1,387	1.2%	1.6%	14.2%	1.9%	9.0%
	6p - 11:59p	7,244	374	78	1,164	135	968	5.2%	1.1%	16.1%	1.9%	13.4%
W	12a - 5:59a	2,364	286	19	414	30	436	12.1%	0.8%	17.5%	1.3%	18.4%
	6a - 11:59a	9,562	67	131	1,441	260	772	0.7%	1.4%	15.1%	2.7%	8.1%
	12p - 5:59p	12,902	155	247	1,015	277	1,202	1.2%	1.9%	7.9%	2.1%	9.3%
	6p - 11:59p	6,306	434	101	572	112	926	6.9%	1.6%	9.1%	1.8%	14.7%
Th	12a - 5:59a	2,094	342	19	246	24	451	16.3%	0.9%	11.7%	1.1%	21.5%
	6a - 11:59a	8,069	75	107	806	184	661	0.9%	1.3%	10.0%	2.3%	8.2%
	12p - 5:59p	12,386	221	234	864	265	1,225	1.8%	1.9%	7.0%	2.1%	9.9%
	6p - 11:59p	6,559	476	73	664	123	951	7.3%	1.1%	10.1%	1.9%	14.5%
F	12a - 5:59a	2,738	471	29	451	36	615	17.2%	1.1%	16.5%	1.3%	22.5%
	6a - 11:59a	9,279	87	123	1,258	208	768	0.9%	1.3%	13.6%	2.2%	8.3%
	12p - 5:59p	15,229	228	249	1,279	304	1,426	1.5%	1.6%	8.4%	2.0%	9.4%
	6p - 11:59p	8,343	717	117	800	140	1,327	8.6%	1.4%	9.6%	1.7%	15.9%
Sa	12a - 5:59a	3,803	1,025	38	500	57	1,222	27.0%	1.0%	13.1%	1.5%	32.1%
	6a - 11:59a	6,210	159	89	876	175	667	2.6%	1.4%	14.1%	2.8%	10.7%
	12p - 5:59p	10,028	310	192	861	213	1,194	3.1%	1.9%	8.6%	2.1%	11.9%
	6p - 11:59p	7,285	768	90	654	143	1,217	10.5%	1.2%	9.0%	2.0%	16.7%
Su	12a - 5:59a	3,662	1,044	43	485	64	1,121	28.5%	1.2%	13.2%	1.7%	30.6%
	6a - 11:59a	3,558	136	52	419	99	489	3.8%	1.5%	11.8%	2.8%	13.7%
	12p - 5:59p	7,128	221	120	550	188	907	3.1%	1.7%	7.7%	2.6%	12.7%
	6p - 11:59p	5,111	461	56	399	124	853	9.0%	1.1%	7.8%	2.4%	16.7%
M	All	28,546	793	416	3,064	631	3,146	2.8%	1.5%	10.7%	2.2%	11.0%
Tu	All	34,245	934	462	5,196	686	3,528	2.7%	1.3%	15.2%	2.0%	10.3%
W	All	31,149	942	498	3,442	679	3,340	3.0%	1.6%	11.1%	2.2%	10.7%
Th	All	29,113	1,114	433	2,581	596	3,291	3.8%	1.5%	8.9%	2.0%	11.3%
F	All	35,601	1,503	518	3,792	688	4,139	4.2%	1.5%	10.7%	1.9%	11.6%
Sa	All	27,331	2,262	409	2,891	588	4,303	8.3%	1.5%	10.6%	2.2%	15.7%
Su	All	19,466	1,863	271	1,853	475	3,374	9.6%	1.4%	9.5%	2.4%	17.3%
All	All	205,451	9,411	3,007	22,819	4,343	25,121	4.6%	1.5%	11.1%	2.1%	12.2%

**Notes:**

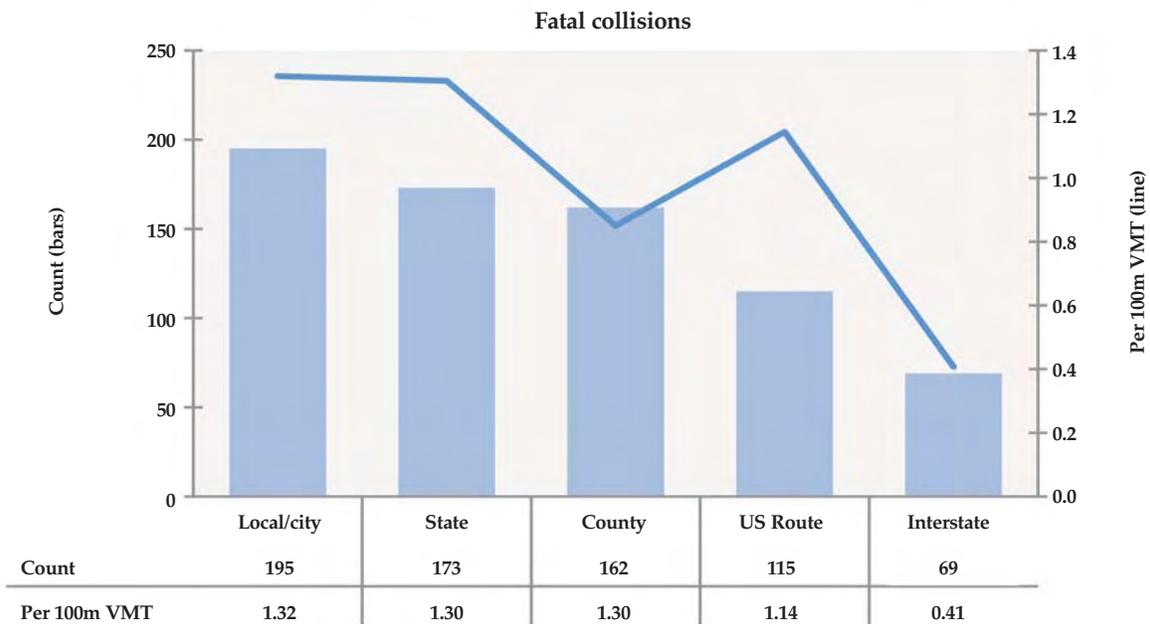
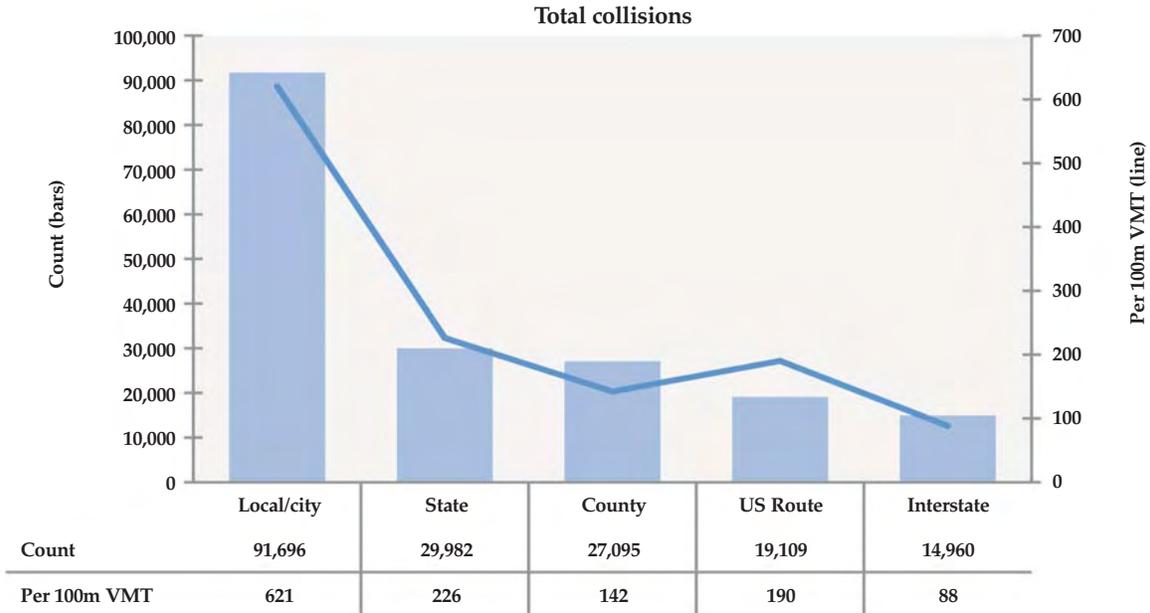
Daily totals include collisions with invalid time reported.  
Color comparisons are only valid within crash-type categories.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- *Local/city* roads had the highest collision and fatal collision rates of any road class.
- In all collisions, the *local/city* road collision rate was 2.7 times higher than the *state* road rate; in fatal collisions, it was nearly identical.

Figure 9. Indiana traffic collisions and collision rates (per 100m VMT), by collision severity and road class, 2008



**Note:**  
Excludes collisions with unknown road classification.

**Sources:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Indiana Department of Transportation, as of April 15, 2009

- Costs associated with alcohol-related fatalities comprised 30.2 percent of all fatal collision costs and 54 percent of alcohol-related collision costs.
- Costs associated with speed-related fatalities comprised 27.6 percent of all fatal collision costs and 37.5 percent of speed-related collision costs.

**Table 33. Estimated economic costs of Indiana traffic collisions, by collision type, 2008**

Collision type	Individuals injured, by injury status				Property damage only vehicles	Total	Fatal, as % total
	Fatal	Incapacitating	Non-incapacitating	Other injury status			
<b>All collisions</b>							
Incidence	815	3,382	45,455	276,122	315,520		
Costs, millions (est.)	\$955	\$356	\$1,300	\$1,122	\$952	\$4,686	20.4%
<b>Alcohol-related</b>							
Incidence	246	582	3,907	9,163	10,846		
Costs, millions (est.)	\$288	\$61	\$113	\$39	\$33	\$534	54.0%
As % total costs	30.2%	17.2%	8.7%	3.5%	3.4%	11.4%	
<b>Aggressive driving</b>							
Incidence	29	87	1,140	4,945	5,193		
Costs, millions (est.)	\$34	\$9	\$33	\$20	\$16	\$112	30.4%
As % total costs	3.6%	2.6%	2.5%	1.8%	1.6%	2.4%	
<b>Speed-related</b>							
Incidence	225	585	6,174	27,413	30,129		
Costs, millions (est.)	\$264	\$62	\$178	\$110	\$91	\$704	37.5%
As % total costs	27.6%	17.3%	13.7%	9.8%	9.5%	15.0%	
<b>Disregard signal</b>							
Incidence	16	162	2,381	6,978	6,950		
Costs, millions (est.)	\$19	\$17	\$68	\$29	\$21	\$154	12.2%
As % total costs	2.0%	4.8%	5.2%	2.6%	2.2%	3.3%	
<b>Hit-and-run</b>							
Incidence	29	146	2,267	17,088	44,629		
Costs, millions (est.)	\$34	\$15	\$65	\$72	\$135	\$321	10.6%
As % total costs	3.6%	4.3%	5.0%	6.4%	14.1%	6.9%	

**Notes:**

See Appendix A for details on cost calculations.

*Non-incapacitating* includes *non-incapacitating* and *possible* injury codes.

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

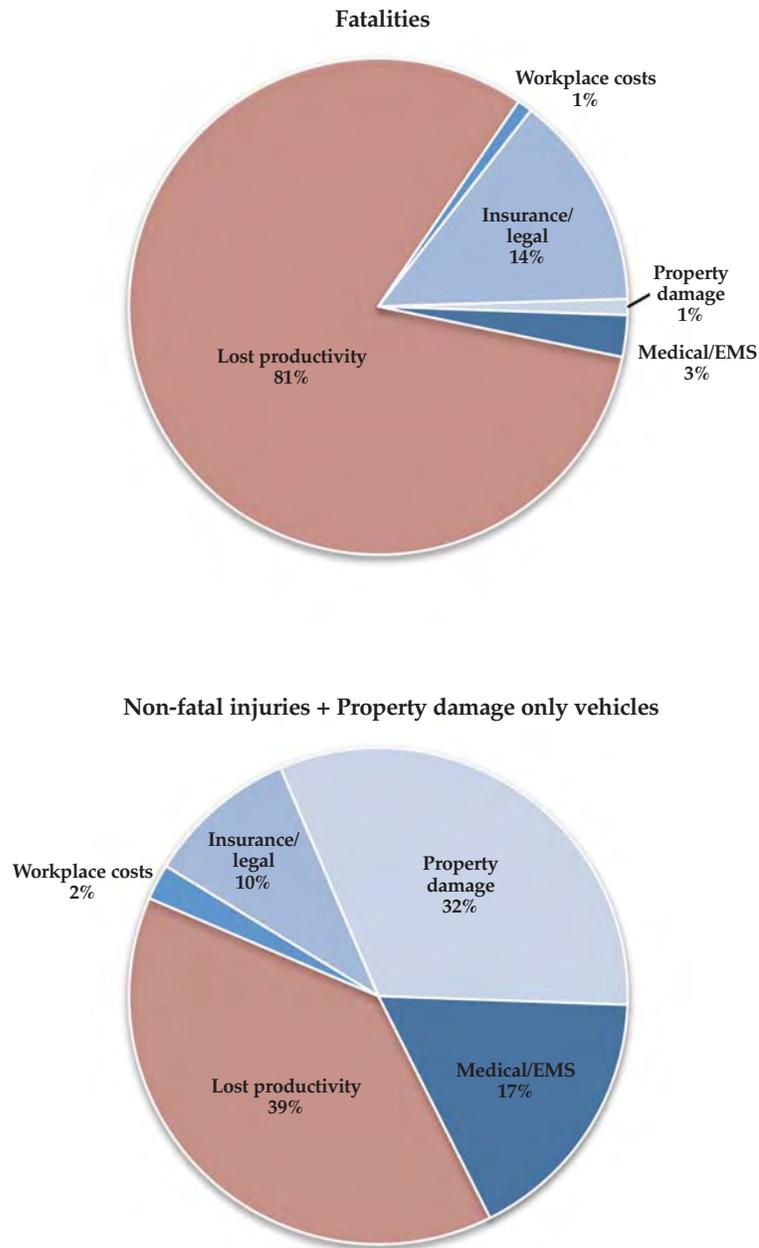
*Property damage only* vehicles denote vehicles with property damage only (i.e., no *fatal, incapacitating, non-incapacitating, or possible* injuries).

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

► Lost productivity costs accounted for 81 percent of costs associated with fatalities, compared to 39 percent for other injury and non-injury categories.

Figure 10. Estimated economic costs of traffic collisions, by injury type and cost category, 2008



**Notes:**

See Appendix A for discussion of cost calculations.

*Property damage only vehicles* denote vehicles with property damage only (i.e., no *fatal, incapacitating, non-incapacitating, or possible* injuries).

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

# VEHICLES



## VEHICLES, 2008

The vehicle section summarizes data on various types of motor vehicles involved in Indiana collisions in 2008. Special emphasis is given to passenger vehicles (passenger cars, pickup trucks, sport utility vehicles, and vans), large trucks, and school buses. Except as noted, motorcycles and mopeds are described in the motorcycle section of this report. Vehicle data are categorized by collision severity, vehicle use, locality (rural/urban), road class, weather and light conditions, and primary factors. Alcohol- and speed-related collisions are also analyzed by vehicle type.

### HIGHLIGHTS

Vehicles involved in Indiana collisions per 100,000 registered vehicles decreased on average between 2004 and 2008.

In 2008, large trucks accounted for slightly over 4 percent of the vehicles involved in all collisions, and nearly 12 percent of the vehicles involved in fatal collisions.

Nearly 49 percent of all collisions involving passenger vehicles and large trucks occurred on local/city roads.

*Failure to yield right of way* was the collision primary factor with the largest number of vehicles involved in serious injury collisions across all passenger vehicle types.

Eighty-nine percent of school buses involved in collisions collided with another vehicle.

- After a 6.4 percent increase from 2006 to 2007 in motor vehicles involved in collisions, 2007 to 2008 showed a decrease of 0.5 percent.
- While the number of registered vehicles decreased from 2007 to 2008, the number of involved vehicles per 100,000 registered increased slightly for the same time frame.
- Per 100,000 registered vehicles, the frequency of vehicles involved in collisions decreased 0.56 percent on average annually from 2004 to 2008.

Table 34. Motor vehicles involved in Indiana collisions, 2004-2008

Year	Motor vehicles involved	Registered vehicles	Involved, per 100,000 registered
2004	366,552	6,432,212	5,699
2005	362,726	6,556,762	5,532
2006	335,065	6,309,100	5,311
2007	356,529	6,482,078	5,500
2008	354,655	6,376,713	5,562
Average annual change	-0.70%	-0.18%	-0.56%

**Notes:**

Counts exclude unit types reported as *bicycles* and *pedestrians*. However, motor vehicles involved in collisions with *bicycles* and *pedestrians* are included in the vehicle counts.

Registered vehicles excludes *special machinery*, *watercraft*, and *unknown* vehicle types.

**Sources:**

*Motor vehicles involved* Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
*Registered vehicles* Indiana Bureau of Motor Vehicles, as of February 16, 2009

- Over 91 percent of vehicles involved in all collisions in 2008 were passenger vehicles, whereas 75 percent of vehicles involved in fatal collisions were passenger vehicles.
- Among all vehicle types, motorcycles were most likely to have been involved in a fatal collision in 2008 (32.7 per 1,000 total involved).
- In 2008, large trucks accounted for slightly over 4 percent of the vehicles involved in all collisions, but nearly 12 percent of the vehicles involved in fatal collisions.
- Whereas 2.7 passenger vehicles per 1,000 were involved in fatal collisions, 3.3 pickup trucks per 1,000 pickup trucks involved in all collisions were involved in fatal collisions.
- While motorcycles/mopeds represented only 1 percent of all vehicles involved in all collisions, they accounted for over 11 percent of vehicles involved in fatal collisions.

**Table 35. Motor vehicles involved in Indiana collisions, by collision severity, 2008**

Vehicle type	Vehicles involved in...										Vehicles in fatal collisions per 1,000 in all collisions
	All collisions		Fatal collisions		Incapacitating injury collisions		Non-incapacitating injury collisions		Property damage only collisions		
	Count	% Total	Count	% Total	Count	% Total	Count	% Total	Count	% Total	
<b>Passenger vehicles</b>	<b>324,144</b>	<b>91.4%</b>	<b>862</b>	<b>75.2%</b>	<b>3,998</b>	<b>84.2%</b>	<b>52,823</b>	<b>93.0%</b>	<b>266,461</b>	<b>91.3%</b>	<b>2.7</b>
Passenger car	200,024	56.4%	508	44.3%	2,345	49.4%	32,875	57.9%	164,296	56.3%	2.5
Pickup truck	50,950	14.4%	168	14.6%	664	14.0%	7,755	13.7%	42,363	14.5%	3.3
Sport utility vehicle (SUV)	47,543	13.4%	119	10.4%	631	13.3%	7,861	13.8%	38,932	13.3%	2.5
Van	25,627	7.2%	67	5.8%	358	7.5%	4,332	7.6%	20,870	7.1%	2.6
<b>Other vehicles</b>	<b>30,511</b>	<b>8.6%</b>	<b>285</b>	<b>24.8%</b>	<b>749</b>	<b>15.8%</b>	<b>3,983</b>	<b>7.0%</b>	<b>25,494</b>	<b>8.7%</b>	<b>9.3</b>
Buses	1,927	0.5%	4	0.3%	15	0.3%	171	0.3%	1,737	0.6%	2.1
Large trucks	14,796	4.2%	133	11.6%	194	4.1%	1,043	1.8%	13,426	4.6%	9.0
Motorcycle/moped	3,915	1.1%	128	11.2%	475	10.0%	2,235	3.9%	1,077	0.4%	32.7
Other vehicle types	908	0.3%	5	0.4%	15	0.3%	110	0.2%	778	0.3%	5.5
Unknown vehicle type	8,965	2.5%	15	1.3%	50	1.1%	424	0.7%	8,476	2.9%	1.7
<b>Total vehicles</b>	<b>354,655</b>	<b>100.0%</b>	<b>1,147</b>	<b>100.0%</b>	<b>4,747</b>	<b>100.0%</b>	<b>56,806</b>	<b>100.0%</b>	<b>291,955</b>	<b>100.0%</b>	

**Notes:**

Counts exclude unit types reported as *bicycles* and *pedestrians*. However, motor vehicles involved in collisions with *bicycles* and *pedestrians* are included in the vehicle counts.

*Large trucks* are defined as *tractor (cab only, no trailer)*, *tractor/double trailer*, *tractor/one semi-trailer*, *tractor/triple trailer*, *truck (single 2 axle, 6 tires)*, *truck (single 3 or more axles)*, *truck/trailer (not semi)*, and *pickup trucks* with GVWR of more than 10,000 pounds.

*Passenger vehicles* are defined as those reported as *passenger cars*, *pickup trucks* (10,000 lbs. or under), *SUVs*, and *vans*.

*Unknown vehicle type* includes vehicles reported as unknown, blank, or invalid codes.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Vehicles used for *personal* use represented the highest percentage of vehicles involved in collisions across all collision severity categories.
- Per 1,000 involved in all collisions, 25 *military* use vehicles were involved in fatal collisions.
- Nearly 12 percent of vehicles involved in fatal collisions were designated as *commercial* use.

**Table 36. Motor vehicles involved in Indiana collisions, by vehicle use and collision severity, 2008**

Vehicle use	Vehicles involved in...										
	All collisions		Fatal collisions		Incapacitating injury collisions		Non-incapacitating injury collisions		Property damage only collisions		Vehicles in fatal collisions per 1,000 in all collisions
	Count	% Total	Count	% Total	Count	% Total	Count	% Total	Count	% Total	
Personal	322,026	90.8%	980	85.4%	4,437	93.5%	54,269	95.5%	262,340	89.9%	3.0
Commercial (buses, taxis, etc.)	13,922	3.9%	137	11.9%	189	4.0%	1,025	1.8%	12,571	4.3%	9.8
Other (includes government, postal, etc.)	2,840	0.8%	6	0.5%	33	0.7%	302	0.5%	2,499	0.9%	2.1
Police	2,802	0.8%	3	0.3%	22	0.5%	365	0.6%	2,412	0.8%	1.1
Rental, not leased	1,752	0.5%	5	0.4%	10	0.2%	214	0.4%	1,523	0.5%	2.9
School	1,311	0.4%	3	0.3%	11	0.2%	93	0.2%	1,204	0.4%	2.3
Highway department	649	0.2%	2	0.2%	9	0.2%	61	0.1%	577	0.2%	3.1
Ambulance	415	0.1%	0	0.0%	4	0.1%	56	0.1%	355	0.1%	0.0
Public utilities (gas, electric, etc.)	365	0.1%	2	0.2%	5	0.1%	21	0.0%	337	0.1%	5.5
Fire	287	0.1%	1	0.1%	2	0.0%	19	0.0%	265	0.1%	3.5
Military	80	0.0%	2	0.2%	1	0.0%	10	0.0%	67	0.0%	25.0
Unknown	8,206	2.3%	6	0.5%	24	0.5%	371	0.7%	7,805	2.7%	0.7
<b>Total vehicles</b>	<b>354,655</b>	<b>100.0%</b>	<b>1,147</b>	<b>100.0%</b>	<b>4,747</b>	<b>100.0%</b>	<b>56,806</b>	<b>100.0%</b>	<b>291,955</b>	<b>100.0%</b>	

**Notes:**

Counts exclude unit types reported as *bicycles* and *pedestrians*. However, motor vehicles involved in collisions with *bicycles* and *pedestrians* are included in the vehicle counts.

*Unknown* vehicle use includes vehicles reported as *unknown*, blank, or invalid codes.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, 19.4 percent of the vehicles involved in serious injury collisions in rural locales were pickup trucks, compared to 13.1 percent in urban locales.
- Nearly twice as many large trucks were involved in serious injury collisions in rural as urban locales.
- Passenger cars were involved in serious injury collisions in urban (57 percent) more than rural (43 percent) locales overall, and in all months except November.

**Table 37. Motor vehicles involved in Indiana serious injury collisions, by locality, vehicle type, and month, 2008**

		Low		<		<		>		>		High				
		Passenger cars		Pickup trucks		SUVs		Vans		Large trucks		% Rural				
Month	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Passenger cars	Pickup trucks	SUVs	Vans	Large trucks	
January	99	131	31	32	23	25	17	21	16	11	43.0%	49.2%	47.9%	44.7%	59.3%	
February	122	141	47	24	42	33	13	16	33	8	46.4%	66.2%	56.0%	44.8%	80.5%	
March	79	108	33	17	32	37	20	25	16	6	42.2%	66.0%	46.4%	44.4%	72.7%	
April	81	130	32	28	16	31	8	14	13	5	38.4%	53.3%	34.0%	36.4%	72.2%	
May	91	138	47	33	25	28	13	23	9	11	39.7%	58.8%	47.2%	36.1%	45.0%	
June	94	134	39	45	25	36	13	29	16	11	41.2%	46.4%	41.0%	31.0%	59.3%	
July	89	123	31	36	26	31	17	14	24	7	42.0%	46.3%	45.6%	54.8%	77.4%	
August	120	147	40	30	30	40	20	22	18	15	44.9%	57.1%	42.9%	47.6%	54.5%	
September	80	155	29	29	11	33	7	34	17	17	34.0%	50.0%	25.0%	17.1%	50.0%	
October	107	157	31	33	29	41	12	21	15	11	40.5%	48.4%	41.4%	36.4%	57.7%	
November	125	120	47	30	30	24	17	13	14	4	51.0%	61.0%	55.6%	56.7%	77.8%	
December	138	143	64	24	58	44	18	18	22	8	49.1%	72.7%	56.9%	50.0%	73.3%	
<b>TOTAL</b>	<b>1,225</b>	<b>1,627</b>	<b>471</b>	<b>361</b>	<b>347</b>	<b>403</b>	<b>175</b>	<b>250</b>	<b>213</b>	<b>114</b>						
<b>% vehicle type</b>	<b>43.0%</b>	<b>57.0%</b>	<b>56.6%</b>	<b>43.4%</b>	<b>46.3%</b>	<b>53.7%</b>	<b>41.2%</b>	<b>58.8%</b>	<b>65.1%</b>	<b>34.9%</b>						
<b>% of total rural/urban</b>	<b>50.4%</b>	<b>59.1%</b>	<b>19.4%</b>	<b>13.1%</b>	<b>14.3%</b>	<b>14.6%</b>	<b>7.2%</b>	<b>9.1%</b>	<b>8.8%</b>	<b>4.1%</b>						

**Notes:**

Includes only those where locality was known (urban/rural).

Urban locality collisions are those that occurred within the incorporated limits of a city.

Rural locality collisions occurred outside the incorporated limits of a city.

Serious injury collisions are defined as those collisions where one or more occupants obtained injuries reported as fatal or incapacitating.

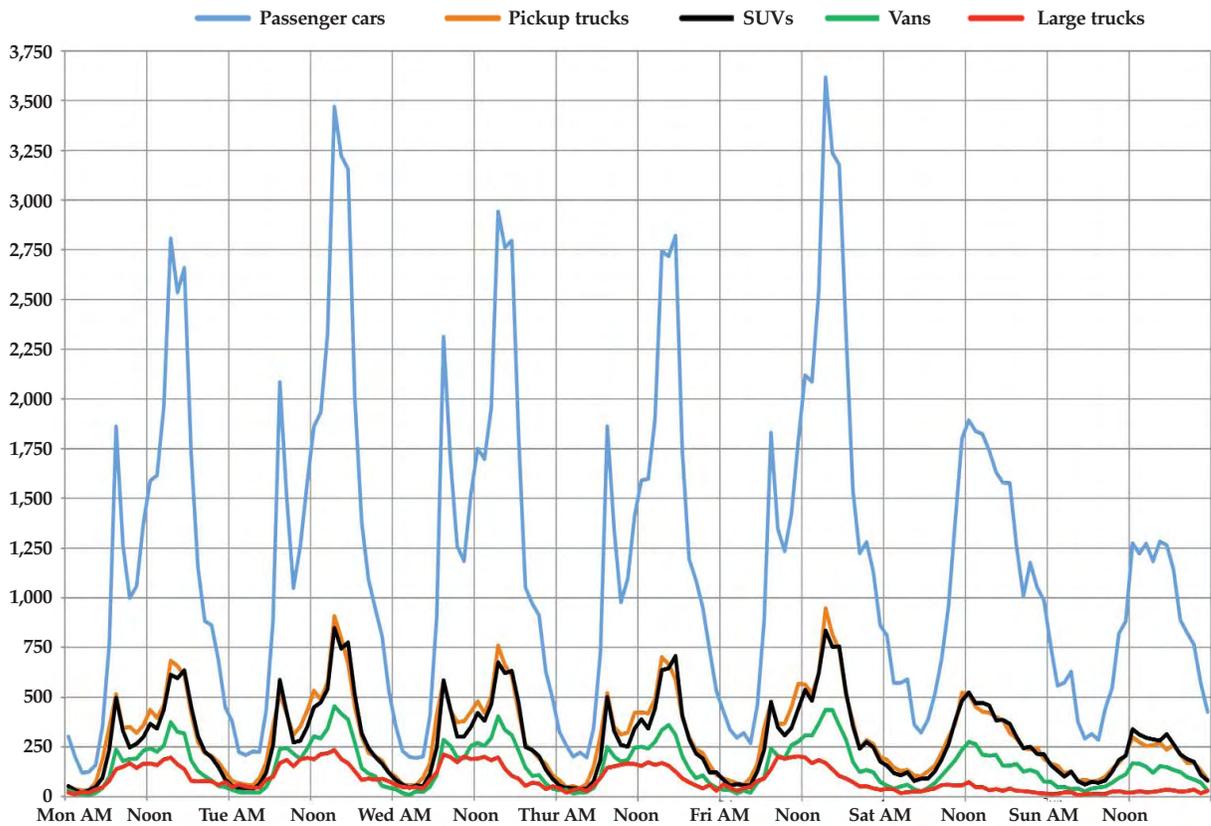
Large trucks are defined as tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks with GVWR of more than 10,000 pounds.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The distribution of passenger vehicles (excluding large trucks) involved in Indiana collisions in 2008 followed similar patterns across all vehicle types.
- For passenger cars, pickup trucks, and SUVs, the highest number of vehicles involved in collisions occurred on Friday afternoons.
- Tuesday afternoons held the highest number of vehicles involved in collisions for large trucks and vans, and the second largest for passenger cars, pickups, and SUVs.
- Large trucks were involved in collisions mainly Monday through Friday between 7am and 5pm.

Figure 11. Motor vehicles involved in collisions, by time of day and day of week, 2008



**Notes:**

Passenger vehicles are defined as those reported as passenger cars, pickup trucks (10,000 lbs. or under), SUVs, and vans.

Large trucks are defined as tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks with GVWR of more than 10,000 pounds.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Nearly 49 percent of all passenger vehicles and large trucks involved in all collisions occurred on *local/city roads*.
- Nearly 27 percent of pickup trucks involved in fatal collisions occurred on *county roads* and an additional 26 percent occurred on *state roads*.
- For every 1,000 large trucks involved in collisions, 18.5 were involved in fatal collisions on *state roads* and 16.5 on *U.S. routes*.
- Twenty-eight percent of large trucks involved in all collisions and 33 percent involved in fatal collisions occurred on *interstates*.
- For every 1,000 passenger cars involved in collisions, 5.6 were involved in fatal collisions on *county roads*.

**Table 38. Motor vehicles involved in Indiana collisions, by vehicle type, road class, and collision severity, 2008**

Vehicle type	Vehicles involved in...										Vehicles in fatal collisions per 1,000 in all collisions
	All collisions		Fatal collisions		Incapacitating injury collisions		Non-incapacitating injury collisions		Property damage only collisions		
	Count	% Total	Count	% Total	Count	% Total	Count	% Total	Count	% Total	
<b>Passenger cars</b>	<b>200,024</b>	<b>100.0%</b>	<b>508</b>	<b>100.0%</b>	<b>2,345</b>	<b>100.0%</b>	<b>32,875</b>	<b>100.0%</b>	<b>164,296</b>	<b>100.0%</b>	<b>2.5</b>
County road	18,230	9.1%	102	20.1%	304	13.0%	3,144	9.6%	14,680	8.9%	5.6
Local/city road	103,495	51.7%	146	28.7%	1,082	46.1%	17,994	54.7%	84,273	51.3%	1.4
State road	26,214	13.1%	132	26.0%	442	18.8%	5,420	16.5%	20,220	12.3%	5.0
U.S. route	18,058	9.0%	77	15.2%	327	13.9%	3,742	11.4%	13,912	8.5%	4.3
Interstate	12,132	6.1%	45	8.9%	125	5.3%	1,607	4.9%	10,355	6.3%	3.7
Unknown	21,895	10.9%	6	1.2%	65	2.8%	968	2.9%	20,856	12.7%	0.3
<b>Pickup trucks</b>	<b>50,950</b>	<b>100.0%</b>	<b>168</b>	<b>100.0%</b>	<b>664</b>	<b>100.0%</b>	<b>7,755</b>	<b>100.0%</b>	<b>42,363</b>	<b>100.0%</b>	<b>3.3</b>
County road	7,252	14.2%	45	26.8%	120	18.1%	1,220	15.7%	5,867	13.8%	6.2
Local/city road	21,602	42.4%	30	17.9%	231	34.8%	3,341	43.1%	18,000	42.5%	1.4
State road	8,409	16.5%	44	26.2%	182	27.4%	1,584	20.4%	6,599	15.6%	5.2
U.S. route	5,129	10.1%	36	21.4%	89	13.4%	1,045	13.5%	3,959	9.3%	7.0
Interstate	2,736	5.4%	12	7.1%	23	3.5%	355	4.6%	2,346	5.5%	4.4
Unknown	5,822	11.4%	1	0.6%	19	2.9%	210	2.7%	5,592	13.2%	0.2
<b>Sport utility vehicles (SUVs)</b>	<b>47,543</b>	<b>100.0%</b>	<b>119</b>	<b>100.0%</b>	<b>631</b>	<b>100.0%</b>	<b>7,861</b>	<b>100.0%</b>	<b>38,932</b>	<b>100.0%</b>	<b>2.5</b>
County road	5,534	11.6%	16	13.4%	95	15.1%	962	12.2%	4,461	11.5%	2.9
Local/city road	22,843	48.0%	36	30.3%	272	43.1%	3,866	49.2%	18,669	48.0%	1.6
State road	6,801	14.3%	31	26.1%	129	20.4%	1,373	17.5%	5,268	13.5%	4.6
U.S. route	4,607	9.7%	24	20.2%	80	12.7%	1,006	12.8%	3,497	9.0%	5.2
Interstate	2,604	5.5%	12	10.1%	37	5.9%	402	5.1%	2,153	5.5%	4.6
Unknown	5,154	10.8%	0	0.0%	18	2.9%	252	3.2%	4,884	12.5%	0.0
<b>Vans</b>	<b>25,627</b>	<b>100.0%</b>	<b>67</b>	<b>100.0%</b>	<b>358</b>	<b>100.0%</b>	<b>4,332</b>	<b>100.0%</b>	<b>20,870</b>	<b>100.0%</b>	<b>2.6</b>
County road	2,410	9.4%	10	14.9%	50	14.0%	397	9.2%	1,953	9.4%	4.1
Local/city road	13,016	50.8%	18	26.9%	160	44.7%	2,343	54.1%	10,495	50.3%	1.4
State road	3,584	14.0%	20	29.9%	64	17.9%	719	16.6%	2,781	13.3%	5.6
U.S. route	2,488	9.7%	12	17.9%	43	12.0%	537	12.4%	1,896	9.1%	4.8
Interstate	1,236	4.8%	6	9.0%	28	7.8%	190	4.4%	1,012	4.8%	4.9
Unknown	2,893	11.3%	1	1.5%	13	3.6%	146	3.4%	2,733	13.1%	0.3
<b>Large trucks</b>	<b>14,796</b>	<b>100.0%</b>	<b>133</b>	<b>100.0%</b>	<b>194</b>	<b>100.0%</b>	<b>1,043</b>	<b>100.0%</b>	<b>13,426</b>	<b>100.0%</b>	<b>9.0</b>
County road	814	5.5%	4	3.0%	12	6.2%	54	5.2%	744	5.5%	4.9
Local/city road	3,765	25.4%	13	9.8%	34	17.5%	207	19.8%	3,511	26.2%	3.5
State road	2,058	13.9%	38	28.6%	39	20.1%	203	19.5%	1,778	13.2%	18.5
U.S. route	2,006	13.6%	33	24.8%	50	25.8%	207	19.8%	1,716	12.8%	16.5
Interstate	4,161	28.1%	44	33.1%	54	27.8%	341	32.7%	3,722	27.7%	10.6
Unknown	1,992	13.5%	1	0.8%	5	2.6%	31	3.0%	1,955	14.6%	0.5
<b>Total</b>	<b>338,940</b>	<b>100.0%</b>	<b>995</b>	<b>100.0%</b>	<b>4,192</b>	<b>100.0%</b>	<b>53,866</b>	<b>100.0%</b>	<b>279,887</b>	<b>100.0%</b>	<b>2.9</b>
County road	34,240	10.1%	177	17.8%	581	13.9%	5,777	10.7%	27,705	9.9%	5.2
Local/city road	164,721	48.6%	243	24.4%	1,779	42.4%	27,751	51.5%	134,948	48.2%	1.5
State road	47,066	13.9%	265	26.6%	856	20.4%	9,299	17.3%	36,646	13.1%	5.6
U.S. route	32,288	9.5%	182	18.3%	589	14.1%	6,537	12.1%	24,980	8.9%	5.6
Interstate	22,869	6.7%	119	12.0%	267	6.4%	2,895	5.4%	19,588	7.0%	5.2
Unknown	37,756	11.1%	9	0.9%	120	2.9%	1,607	3.0%	36,020	12.9%	0.2

**Notes:**

Counts exclude unit types reported as *bicycles* and *pedestrians*. However, motor vehicles involved in collisions with *bicycles* and *pedestrians* are included in the vehicle counts.

*Large trucks* are defined as *tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks with GVWR of more than 10,000 pounds.*

*Passenger vehicles* are defined as those reported as *passenger cars, pickup trucks (10,000 lbs. or under), SUVs, and vans.*

*Unknown* road class includes those reported as *unknown, blank or invalid codes.*

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- *Failure to yield right of way* was the collision primary factor with the largest number of vehicles involved in serious injury collisions across all passenger vehicle types.
- Over 60 percent of passenger cars, pickup trucks, and SUVs involved in serious injury collisions were identified as the vehicle attributed to the primary factor of the collision.
- Over 90 percent of passenger cars, pickup trucks, and SUVs, and nearly 90 percent of vans involved in serious injury collisions with *ran off road right* as the primary factor were identified as the vehicle attributable to the primary factor of the collision.
- The primary factor, *speed too fast for weather conditions*, increased over 40 percent from 2007 to 2008 for all collisions of total passenger vehicles (11,967 in 2007 to 17,164 in 2008).

**Table 39. Number of passenger vehicles, by the top ten primary serious injury collision factors, vehicle type, and collision severity, 2008**

Top 10 primary factors	Vehicles involved in...			Vehicle attributed to primary factor as % of serious injury
	All collisions	Serious injury collisions	Serious injury collisions where vehicle contributing circumstance matched collision primary factor	
<b>Passenger cars</b>	<b>200,024</b>	<b>2,853</b>	<b>1,831</b>	<b>64.2%</b>
Failure to yield right of way	38,010	646	378	58.5%
Disregard signal/reg sign	8,801	272	143	52.6%
Left of center	3,267	243	129	53.1%
Ran off road right	6,773	234	220	94.0%
Unsafe speed	4,572	193	122	63.2%
Other - driver (explained in narrative)	18,734	178	124	69.7%
Following too closely	33,043	166	67	40.4%
Speed too fast for weather conditions	10,007	143	90	62.9%
Alcoholic beverages	3,074	117	77	65.8%
Roadway surface condition	7,929	91	76	83.5%
Top 10 subtotal	134,210	2,283	1,426	62.5%
Top 10 as % of all passenger cars	67.1%	80.0%	77.9%	
<b>Pickup trucks</b>	<b>50,950</b>	<b>832</b>	<b>530</b>	<b>63.7%</b>
Failure to yield right of way	7,796	156	81	51.9%
Ran off road right	2,130	91	84	92.3%
Left of center	1,148	90	32	35.6%
Disregard signal/reg sign	1,915	76	39	51.3%
Other - driver (explained in narrative)	5,145	56	43	76.8%
Following too closely	7,085	43	18	41.9%
Unsafe speed	1,019	40	22	55.0%
Speed too fast for weather conditions	2,948	36	25	69.4%
Alcoholic beverages	981	36	27	75.0%
Roadway surface condition	2,747	35	32	91.4%
Top 10 subtotal	32,914	659	403	61.2%
Top 10 as % of all pickup trucks	64.6%	79.2%	76.0%	
<b>Sport utility vehicles (SUVs)</b>	<b>47,543</b>	<b>750</b>	<b>481</b>	<b>64.1%</b>
Failure to yield right of way	7,672	165	83	50.3%
Disregard signal/reg sign	1,793	81	38	46.9%
Ran off road right	1,665	64	59	92.2%
Speed too fast for weather conditions	3,005	59	46	78.0%
Left of center	717	49	24	49.0%
Other - driver (explained in narrative)	4,560	48	37	77.1%
Following too closely	8,493	48	25	52.1%
Roadway surface condition	2,675	35	30	85.7%
Unsafe speed	944	33	25	75.8%
Alcoholic beverages	701	28	21	75.0%
Top 10 subtotal	32,225	610	388	63.6%
Top 10 as % of all SUVs	67.8%	81.3%	80.7%	
<b>Vans</b>	<b>25,627</b>	<b>425</b>	<b>242</b>	<b>56.9%</b>
Failure to yield right of way	4,619	86	46	53.5%
Disregard signal/reg sign	1,132	48	18	37.5%
Other - driver (explained in narrative)	2,662	32	15	46.9%
Following too closely	4,095	30	13	43.3%
Left of center	401	29	17	58.6%
Ran off road right	664	27	24	88.9%
Speed too fast for weather conditions	1,204	25	15	60.0%
Unsafe speed	431	23	11	47.8%
Driver illness	119	17	7	41.2%
Roadway surface condition	978	16	12	75.0%
Top 10 subtotal	16,305	333	178	53.5%
Top 10 as % of all vans	63.6%	78.4%	73.6%	

**Notes:**

Top 10 primary factors are counts of vehicles, by each vehicle type, involved in collisions. For example, there were 38,010 passenger cars involved in collisions where the primary factor for each collision was *failure to yield right of way*. Note that if the collision was a multi-vehicle collision, more than one vehicle may have contributing circumstances that match the primary factor.

Passenger vehicles are defined as those reported as *passenger cars, pickup trucks (10,000 lbs. or under), SUVs, and vans*.

Serious injury collisions are defined as those collisions where one or more occupants incurred injuries reported as *fatal or incapacitating*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Across all passenger vehicle types, collisions that involved the vehicle colliding with a pedestrian were most likely to result in a serious injury.
- For all passenger vehicle types involved in serious injury collisions, the top three harmful events were colliding with *another motor vehicle, a tree, and a pedestrian*.
- Nine percent of SUVs and nearly 9 percent of vans involved in serious injury collisions collided with a bicycle.
- For passenger vehicles, over 88 percent of all collisions and over 90 percent of serious injury collisions involved the top 10 harmful events.

**Table 40. Passenger vehicles involved in serious injury collisions, by the top ten harmful events, vehicle type, and collision severity, 2008**

Vehicle type/harmful event	Vehicles involved in...		Serious injury as % of total
	All collisions	Serious injury collisions	
<b>Passenger cars</b>	<b>200,024</b>	<b>2,853</b>	<b>1.4%</b>
Another motor vehicle	160,830	2,037	1.3%
Tree	2,857	158	5.5%
Pedestrian	926	125	13.5%
Utility pole	2,924	76	2.6%
Off roadway	2,267	61	2.7%
Other	3,061	43	1.4%
Ditch	2,555	36	1.4%
Embankment	950	34	3.6%
Bicycle	650	34	5.2%
Overturn/rollover	498	33	6.6%
Top 10 subtotal	177,518	2,637	1.5%
Top 10 as % of all vehicles	88.7%	92.4%	
<b>Pickup trucks</b>	<b>50,950</b>	<b>832</b>	<b>1.6%</b>
Another motor vehicle	38,566	546	1.4%
Tree	1,123	50	4.5%
Pedestrian	249	42	16.9%
Ditch	808	27	3.3%
Off roadway	729	27	3.7%
Utility pole	1,085	26	2.4%
Other	916	16	1.7%
Embankment	340	12	3.5%
Overturn/rollover	271	11	4.1%
Bicycle	131	10	7.6%
Guardrail End	146	10	6.8%
Guardrail Face	504	10	2.0%
Top 10 subtotal	44,868	787	1.8%
Top 10 as % of all vehicles	88.1%	94.6%	
<b>Sport utility vehicles (SUVs)</b>	<b>47,543</b>	<b>750</b>	<b>1.6%</b>
Another motor vehicle	36,993	506	1.4%
Tree	870	48	5.5%
Pedestrian	210	40	19.0%
Utility pole	836	21	2.5%
Overturn/rollover	446	20	4.5%
Ditch	759	18	2.4%
Off roadway	628	17	2.7%
Bicycle	154	14	9.1%
Other	661	13	2.0%
Embankment	309	10	3.2%
Top 10 subtotal	41,866	707	1.7%
Top 10 as % of all vehicles	88.1%	94.3%	
<b>Vans</b>	<b>25,627</b>	<b>425</b>	<b>1.7%</b>
Another motor vehicle	20,828	318	1.5%
Pedestrian	166	21	12.7%
Tree	296	16	5.4%
Off roadway	216	12	5.6%
Utility pole	315	9	2.9%
Ditch	257	9	3.5%
Bicycle	93	8	8.6%
Other	394	5	1.3%
Guardrail face	116	4	3.4%
Median barrier	101	4	4.0%
Top 10 subtotal	22,782	406	1.8%
Top 10 as % of all vehicles	88.9%	95.5%	

**Notes:**

Passenger vehicles are defined as those reported as *passenger cars, pickup trucks (10,000 lbs. or under), SUVs, and vans*.

Serious injury collisions are defined as those collisions where one or more occupants incurred injuries reported as *fatal or incapacitating*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The largest percentage of pre-collision action for each vehicle type was going straight.
- Over 19 percent of SUVs were *slowing or stopped in traffic* prior to the collision, compared to 16 percent for all *passenger vehicles* and *large trucks* combined.
- Over 4 percent of *large trucks* were *changing lanes* prior to the collision, compared to under 2 percent for each passenger vehicle type.
- Nearly 8 percent of *large trucks* were *turning right* prior to the collision, compared to 3 percent for each passenger vehicle type.

Table 41. Passenger vehicles and large trucks in collisions, by the pre-collision action and vehicle type, 2008

Vehicle type	Passenger cars		Pickup trucks		Sport utility vehicles (SUVs)		Vans		Large trucks		Total	
	Count	% Total	Count	% Total	Count	% Total	Count	% Total	Count	% Total	Count	% Total
Going straight	100,183	50.1%	25,816	50.7%	23,003	48.4%	12,165	47.5%	7,031	47.5%	168,198	49.6%
Slowing or stopped in traffic	32,248	16.1%	7,117	14.0%	9,169	19.3%	4,454	17.4%	1,527	10.3%	54,515	16.1%
Parked	17,338	8.7%	3,976	7.8%	3,122	6.6%	2,010	7.8%	1,085	7.3%	27,531	8.1%
Turning left	15,805	7.9%	3,397	6.7%	3,209	6.7%	1,932	7.5%	1,057	7.1%	25,400	7.5%
Backing	9,454	4.7%	4,363	8.6%	3,464	7.3%	1,958	7.6%	1,270	8.6%	20,509	6.1%
Turning right	6,314	3.2%	1,708	3.4%	1,427	3.0%	932	3.6%	1,175	7.9%	11,556	3.4%
Changing lanes	3,480	1.7%	661	1.3%	767	1.6%	428	1.7%	642	4.3%	5,978	1.8%
Entering traffic lane	3,333	1.7%	715	1.4%	676	1.4%	372	1.5%	150	1.0%	5,246	1.5%
Starting in traffic	2,997	1.5%	719	1.4%	825	1.7%	419	1.6%	156	1.1%	5,116	1.5%
Avoiding object in roadway	1,783	0.9%	517	1.0%	382	0.8%	166	0.6%	117	0.8%	2,965	0.9%
Driving left of center	1,499	0.7%	466	0.9%	327	0.7%	166	0.6%	54	0.4%	2,512	0.7%
Overtaking/passing	1,431	0.7%	430	0.8%	324	0.7%	167	0.7%	123	0.8%	2,475	0.7%
Leaving traffic lane	1,247	0.6%	361	0.7%	291	0.6%	144	0.6%	99	0.7%	2,142	0.6%
Merging	842	0.4%	187	0.4%	176	0.4%	83	0.3%	107	0.7%	1,395	0.4%
Making U turn	447	0.2%	69	0.1%	99	0.2%	50	0.2%	61	0.4%	726	0.2%
Crossing the median	317	0.2%	96	0.2%	64	0.1%	38	0.1%	10	0.1%	525	0.2%
Unattended motor vehicle	180	0.1%	96	0.2%	32	0.1%	34	0.1%	48	0.3%	390	0.1%
Unknown	1,126	0.6%	256	0.5%	186	0.4%	109	0.4%	84	0.6%	1,761	0.5%
<b>Total</b>	<b>200,024</b>	<b>100.0%</b>	<b>50,950</b>	<b>100.0%</b>	<b>47,543</b>	<b>100.0%</b>	<b>25,627</b>	<b>100.0%</b>	<b>14,796</b>	<b>100.0%</b>	<b>338,940</b>	<b>100.0%</b>

**Notes:**

Passenger vehicles are defined as those reported as *passenger cars*, *pickup trucks (10,000 lbs. or under)*, *SUVs*, and *vans*.

Large trucks are defined as *tractor (cab only, no trailer)*, *tractor/double trailer*, *tractor/one semi-trailer*, *tractor/triple trailer*, *truck (single 2 axle, 6 tires)*, *truck (single 3 or more axles)*, *truck/trailer (not semi)*, and *pickup trucks with GVWR of more than 10,000 pounds*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- *Clear and cloudy* weather conditions accounted for the highest percentage of vehicles involved in collisions across all passenger vehicle types and collision severity categories.
- Among vans involved in Indiana collisions under *severe cross winds* and *fog/smoke/smog* weather conditions, over 29 and nearly 27, respectively, per 1,000 were involved in fatal conditions.
- Fifteen percent of vans involved in fatal collisions were under *rainy* weather conditions.
- *Fog/smoke/smog* appears to be the most lethal driving condition.

**Table 42. Passenger vehicles involved in Indiana collisions, by weather condition and collision severity, 2008**

Vehicle type/weather condition	Vehicles involved in...										Vehicles in fatal collisions per 1,000 in all collisions
	All collisions		Fatal collisions		Incapacitating injury collisions		Non-incapacitating injury collisions		Property damage only collisions		
	Count	% Total	Count	% Total	Count	% Total	Count	% Total	Count	% Total	
<b>Passenger cars</b>	<b>200,024</b>	<b>100.0%</b>	<b>508</b>	<b>100.0%</b>	<b>2,345</b>	<b>100.0%</b>	<b>32,875</b>	<b>100.0%</b>	<b>164,296</b>	<b>100.0%</b>	<b>2.5</b>
Blowing sand/soil/snow	2,933	1.5%	9	1.8%	33	1.4%	380	1.2%	2,511	1.5%	3.1
Clear	115,695	57.8%	319	62.8%	1,391	59.3%	19,453	59.2%	94,532	57.5%	2.8
Cloudy	43,349	21.7%	90	17.7%	511	21.8%	7,182	21.8%	35,566	21.6%	2.1
Fog/smoke/smog	877	0.4%	14	2.8%	12	0.5%	152	0.5%	699	0.4%	16.0
Rain	20,308	10.2%	40	7.9%	225	9.6%	3,512	10.7%	16,531	10.1%	2.0
Severe cross winds	259	0.1%	2	0.4%	1	0.0%	43	0.1%	213	0.1%	7.7
Sleet/hail/freezing rain	5,739	2.9%	17	3.3%	77	3.3%	767	2.3%	4,878	3.0%	3.0
Snow	10,587	5.3%	17	3.3%	95	4.1%	1,384	4.2%	9,091	5.5%	1.6
Invalid/not reported	277	0.1%	0	0.0%	0	0.0%	2	0.0%	275	0.2%	0.0
<b>Pickup trucks</b>	<b>50,950</b>	<b>100.0%</b>	<b>168</b>	<b>100.0%</b>	<b>664</b>	<b>100.0%</b>	<b>7,755</b>	<b>100.0%</b>	<b>42,363</b>	<b>100.0%</b>	<b>3.3</b>
Blowing sand/soil/snow	898	1.8%	1	0.6%	13	2.0%	109	1.4%	775	1.8%	1.1
Clear	28,296	55.5%	103	61.3%	397	59.8%	4,422	57.0%	23,374	55.2%	3.6
Cloudy	11,333	22.2%	32	19.0%	131	19.7%	1,659	21.4%	9,511	22.5%	2.8
Fog/smoke/smog	320	0.6%	6	3.6%	3	0.5%	58	0.7%	253	0.6%	18.8
Rain	5,000	9.8%	14	8.3%	58	8.7%	853	11.0%	4,075	9.6%	2.8
Severe cross winds	80	0.2%	0	0.0%	1	0.2%	10	0.1%	69	0.2%	0.0
Sleet/hail/freezing rain	1,844	3.6%	4	2.4%	26	3.9%	269	3.5%	1,545	3.6%	2.2
Snow	3,135	6.2%	8	4.8%	35	5.3%	374	4.8%	2,718	6.4%	2.6
Invalid/not reported	44	0.1%	0	0.0%	0	0.0%	1	0.0%	43	0.1%	0.0
<b>Sport utility vehicles (SUVs)</b>	<b>47,543</b>	<b>100.0%</b>	<b>119</b>	<b>100.0%</b>	<b>631</b>	<b>100.0%</b>	<b>7,861</b>	<b>100.0%</b>	<b>38,932</b>	<b>100.0%</b>	<b>2.5</b>
Blowing sand/soil/snow	875	1.8%	1	0.8%	9	1.4%	121	1.5%	744	1.9%	1.1
Clear	25,870	54.4%	71	59.7%	354	56.1%	4,364	55.5%	21,081	54.1%	2.7
Cloudy	10,951	23.0%	23	19.3%	136	21.6%	1,759	22.4%	9,033	23.2%	2.1
Fog/smoke/smog	207	0.4%	2	1.7%	4	0.6%	38	0.5%	163	0.4%	9.7
Rain	4,655	9.8%	11	9.2%	60	9.5%	818	10.4%	3,766	9.7%	2.4
Severe cross winds	61	0.1%	0	0.0%	0	0.0%	18	0.2%	43	0.1%	0.0
Sleet/hail/freezing rain	1,773	3.7%	5	4.2%	34	5.4%	302	3.8%	1,432	3.7%	2.8
Snow	3,104	6.5%	6	5.0%	34	5.4%	440	5.6%	2,624	6.7%	1.9
Invalid/not reported	47	0.1%	0	0.0%	0	0.0%	1	0.0%	46	0.1%	0.0
<b>Vans</b>	<b>25,627</b>	<b>100.0%</b>	<b>67</b>	<b>100.0%</b>	<b>358</b>	<b>100.0%</b>	<b>4,332</b>	<b>100.0%</b>	<b>20,870</b>	<b>100.0%</b>	<b>2.6</b>
Blowing sand/soil/snow	357	1.4%	1	1.5%	5	1.4%	63	1.5%	288	1.4%	2.8
Clear	14,633	57.1%	35	52.2%	226	63.1%	2,466	56.9%	11,906	57.0%	2.4
Cloudy	5,895	23.0%	11	16.4%	76	21.2%	954	22.0%	4,854	23.3%	1.9
Fog/smoke/smog	112	0.4%	3	4.5%	4	1.1%	24	0.6%	81	0.4%	26.8
Rain	2,410	9.4%	10	14.9%	25	7.0%	462	10.7%	1,913	9.2%	4.1
Severe cross winds	34	0.1%	1	1.5%	0	0.0%	5	0.1%	28	0.1%	29.4
Sleet/hail/freezing rain	759	3.0%	3	4.5%	10	2.8%	133	3.1%	613	2.9%	4.0
Snow	1,387	5.4%	3	4.5%	11	3.1%	225	5.2%	1,148	5.5%	2.2
Invalid/not reported	40	0.2%	0	0.0%	1	0.3%	0	0.0%	39	0.2%	0.0

**Notes:**

Passenger vehicles are defined as those reported as *passenger cars*, *pickup trucks (10,000 lbs. or under)*, *SUVs*, and *vans*. *Invalid/not reported* weather condition includes conditions reported as blank and invalid values.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Among all passenger vehicle types, the percentage of vehicles involved in *fatal* collisions under *dark (not lighted)* conditions was proportionally more than two times higher than for all collisions.
- There were 8.6 pickup trucks involved in *fatal* collisions for every 1,000 involved in all collisions under *dark (not lighted)* conditions.
- Sixty-eight percent of passenger cars and SUVs involved in all collisions occurred during *daylight*, whereas less than 54 percent involved in *fatal* collisions occurred during *daylight*.
- *Dark, not lighted, driving* conditions exhibit the highest lethality rates.

Table 43. Passenger vehicles involved in Indiana collisions, by light condition and collision severity, 2008

Vehicle type/light condition	Vehicles involved in...										Vehicles in fatal collisions per 1,000 in all collisions
	All collisions		Fatal collisions		Incapacitating injury collisions		Non-incapacitating injury collisions		Property damage only collisions		
	Count	% Total	Count	% Total	Count	% Total	Count	% Total	Count	% Total	
<b>Passenger cars</b>	<b>200,024</b>	<b>100.0%</b>	<b>508</b>	<b>100.0%</b>	<b>2,345</b>	<b>100.0%</b>	<b>32,875</b>	<b>100.0%</b>	<b>164,296</b>	<b>100.0%</b>	<b>2.5</b>
Dark (lighted)	31,037	15.5%	62	12.2%	362	15.4%	4,842	14.7%	25,771	15.7%	2.0
Dark (not lighted)	22,776	11.4%	149	29.3%	389	16.6%	3,178	9.7%	19,060	11.6%	6.5
Dawn/dusk	9,385	4.7%	23	4.5%	109	4.6%	1,465	4.5%	7,788	4.7%	2.5
Daylight	135,834	67.9%	274	53.9%	1,484	63.3%	23,373	71.1%	110,703	67.4%	2.0
Unknown	992	0.5%	0	0.0%	1	0.0%	17	0.1%	974	0.6%	0.0
<b>Pickup trucks</b>	<b>50,950</b>	<b>100.0%</b>	<b>168</b>	<b>100.0%</b>	<b>664</b>	<b>100.0%</b>	<b>7,755</b>	<b>100.0%</b>	<b>42,363</b>	<b>100.0%</b>	<b>3.3</b>
Dark (lighted)	6,335	12.4%	15	8.9%	71	10.7%	920	11.9%	5,329	12.6%	2.4
Dark (not lighted)	7,107	13.9%	61	36.3%	125	18.8%	999	12.9%	5,922	14.0%	8.6
Dawn/dusk	2,474	4.9%	6	3.6%	32	4.8%	367	4.7%	2,069	4.9%	2.4
Daylight	34,821	68.3%	86	51.2%	436	65.7%	5,467	70.5%	28,832	68.1%	2.5
Unknown	213	0.4%	0	0.0%	0	0.0%	2	0.0%	211	0.5%	0.0
<b>Sport utility vehicles (SUVs)</b>	<b>47,543</b>	<b>100.0%</b>	<b>119</b>	<b>100.0%</b>	<b>631</b>	<b>100.0%</b>	<b>7,861</b>	<b>100.0%</b>	<b>38,932</b>	<b>100.0%</b>	<b>2.5</b>
Dark (lighted)	6,564	13.8%	20	16.8%	74	11.7%	1,046	13.3%	5,424	13.9%	3.0
Dark (not lighted)	5,818	12.2%	30	25.2%	106	16.8%	892	11.3%	4,790	12.3%	5.2
Dawn/dusk	2,329	4.9%	5	4.2%	30	4.8%	376	4.8%	1,918	4.9%	2.1
Daylight	32,683	68.7%	64	53.8%	421	66.7%	5,546	70.6%	26,652	68.5%	2.0
Unknown	149	0.3%	0	0.0%	0	0.0%	1	0.0%	148	0.4%	0.0
<b>Vans</b>	<b>25,627</b>	<b>100.0%</b>	<b>67</b>	<b>100.0%</b>	<b>358</b>	<b>100.0%</b>	<b>4,332</b>	<b>100.0%</b>	<b>20,870</b>	<b>100.0%</b>	<b>2.6</b>
Dark (lighted)	3,029	11.8%	3	4.5%	42	11.7%	533	12.3%	2,451	11.7%	1.0
Dark (not lighted)	2,702	10.5%	19	28.4%	54	15.1%	337	7.8%	2,292	11.0%	7.0
Dawn/dusk	1,082	4.2%	2	3.0%	19	5.3%	176	4.1%	885	4.2%	1.8
Daylight	18,710	73.0%	43	64.2%	242	67.6%	3,283	75.8%	15,142	72.6%	2.3
Unknown	104	0.4%	0	0.0%	1	0.3%	3	0.1%	100	0.5%	0.0

**Notes:**

Passenger vehicles are defined as those reported as *passenger cars*, *pickup trucks (10,000 lbs. or under)*, *SUVs*, and *vans*.  
*Unknown* light condition includes conditions reported as *unknown*, blank, and invalid values.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- One person was killed per every 43 SUVs involved in collisions where alcohol was present. When alcohol was not present in the vehicle, one person was killed per every 1,187 SUVs involved in collisions.
- Of the 14,796 large trucks involved in collisions, only 33 had alcohol present in the vehicle, and no fatalities resulted from those alcohol-related collisions.
- One person was killed per every 120 speeding passenger cars involved in collisions. When speeding was not a factor in the vehicle, one person was killed per every 649 passenger cars involved in collisions.

**Table 44. Passenger vehicles and large trucks involved in alcohol- and speeding-related collisions and frequency of fatal injuries, 2008**

	Passenger cars		Pickup trucks		Sport utility vehicles (SUVs)		Vans		Large trucks	
	Vehicles in all collisions	Fatal injuries in vehicle	Vehicles in all collisions	Fatal injuries in vehicle	Vehicles in all collisions	Fatal injuries in vehicle	Vehicles in all collisions	Fatal injuries in vehicle	Vehicles in all collisions	Fatal injuries in vehicle
<b>Total vehicles</b>	<b>200,024</b>	<b>397</b>	<b>50,950</b>	<b>92</b>	<b>47,543</b>	<b>68</b>	<b>25,627</b>	<b>33</b>	<b>14,796</b>	<b>11</b>
Alcohol present in the vehicle	5,251	103	1,900	24	1,245	29	501	5	33	0
Alcohol NOT present in the vehicle	194,773	294	49,050	68	46,298	39	25,126	28	14,763	11
Frequency of fatal injuries in vehicles where alcohol present		51.0		79.2		42.9		100.2		na
Frequency of fatal injuries in vehicles where alcohol NOT present		662.5		721.3		1,187.1		897.4		1,342.1
Vehicle identified as <b>speeding</b>	13,117	109	3,612	15	3,527	17	1,248	13	797	2
Vehicle <b>NOT</b> identified as <b>speeding</b>	186,907	288	47,338	77	44,016	51	24,379	20	13,999	9
Frequency of fatal injuries in speeding vehicles		120.3		240.8		207.5		96.0		398.5
Frequency of fatal injuries in non-speeding vehicles		649.0		614.8		863.1		1,219.0		1,555.4

**Notes:**

Passenger vehicles are defined as those reported as *passenger cars, pickup trucks (10,000 lbs. or under), SUVs, and vans.*

Large trucks are defined as *tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks with GVWR of more than 10,000 pounds.*

Alcohol and non-alcohol frequencies are calculated by dividing the number of vehicles where alcohol was present/not present by the number of fatalities occurring in vehicles where alcohol was present/not present.

Speeding and non-speeding frequencies are calculated by dividing the number of vehicles speeding/not speeding in all collisions by the number of fatalities occurring in vehicles speeding/not speeding.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- *Failure to yield right of way* was the primary factor with the highest number of large trucks in serious injury collisions.
- Seventy-one percent of large trucks involved in serious injury collisions with the primary factor of *ran off road right* were identified as the vehicle attributed to the primary contributing factor of the collisions.
- Of the 327 large trucks involved in serious injury collisions, 124 (37.9 percent) were identified as the vehicle attributed to the primary contributing factor of the collision.
- Seventy-six percent of the large trucks involved in serious injury collisions with the top ten primary factors were identified as the vehicle attributed to the primary contributing factor of the collision.

**Table 45. Number of large trucks by the top ten primary serious injury collision factors, vehicle type, and collision severity, 2008**

Vehicle type and top 10 primary collision factors	Large trucks involved in...			Large truck attributed to primary factor as % of serious injury
	All collisions	Serious injury collisions	Serious injury collisions where large truck contributing circumstance matched collision primary factor	
<b>Large trucks</b>	<b>14,796</b>	<b>327</b>	<b>124</b>	<b>37.9%</b>
Failure to yield right of way	1,402	43	15	34.9%
Left of center	304	37	4	10.8%
Speed too fast for weather conditions	949	34	10	29.4%
Other - driver	1,869	32	18	56.3%
Disregard signal/reg sign	329	26	9	34.6%
Ran off road right	474	21	15	71.4%
Following too closely	1,416	18	10	55.6%
Unsafe speed	346	17	6	35.3%
Improper lane usage	1,357	16	3	18.8%
Driver distracted	412	12	4	33.3%
Top 10 subtotal	8,858	256	94	36.7%
Top 10 as % of all large trucks	59.9%	78.3%	75.8%	

**Notes:**

Top 10 primary factors are counts of vehicles, by each vehicle type, involved in collisions. For example, there were 1,402 large trucks involved in collisions where the primary factor for each collision was *failure to yield right of way*. Note that if the collision was a multi-vehicle collision, more than one vehicle may have contributing circumstances that match the primary factor.

*Serious injury* collisions are defined as those collisions where one or more occupants incurred injuries reported as *fatal* or *incapacitating*.

*Large trucks* are defined as *tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks* with GVWR of more than 10,000 pounds.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Forty percent of large trucks involved in serious injury collisions collided with a pedestrian and nearly 29 percent collided with a bicycle.
- Slightly over 2 percent of the large trucks involved in collisions were involved in serious injury collisions.

**Table 46. Large trucks involved in serious injury collisions, by the top ten harmful events, vehicle type, and collision severity, 2008**

Vehicle type/harmful event	Large trucks involved in...		
	All collisions	Serious injury collisions	Serious injury as % of total
<b>All large trucks</b>	<b>14,796</b>	<b>327</b>	<b>2.2%</b>
Another motor vehicle	11,208	280	2.5%
Pedestrian	30	12	40.0%
Overtum/rollover	217	6	2.8%
Bicycle	14	4	28.6%
Off roadway	213	4	1.9%
Other	624	3	0.5%
Ditch	191	3	1.6%
Bridge pier or abutment	23	2	8.7%
Culvert	21	2	9.5%
Tree	88	2	2.3%
<i>Top 10 subtotal</i>	<i>12,629</i>	<i>318</i>	<i>2.5%</i>
<i>Top 10 as % of all vehicles</i>	<i>85.4%</i>	<i>97.2%</i>	

**Notes:**

Large trucks are defined as tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks with GVWR of more than 10,000 pounds.

Serious injury collisions are defined as those collisions where one or more occupants incurred injuries reported as fatal or incapacitating.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Nearly 3 percent of large trucks w/trailers involved in all collisions revealed a hazard placard, and nearly 2 percent reported a hazard release when involved in a collision.
- Four percent of large trucks w/trailers involved in fatal collisions revealed a hazard placard, with none reporting a hazard release.
- More than 9 percent of single unit large trucks involved in fatal collisions revealed a hazard placard, and 3 percent reported a hazard release.

**Table 47. Large trucks involved in collisions, by hazard placard and release, and collision severity, 2008**

	Large trucks involved in...						
	All collisions	% of total collisions	Fatal collisions	% of total fatal collisions	Incapacitating injury collisions	Non-incapacitating injury collisions	Property damage only collisions
<b>Large truck w/trailer</b>	<b>9,318</b>		<b>100</b>		<b>122</b>	<b>648</b>	<b>8,448</b>
w/hazard placard	257	2.8%	4	4.0%	4	18	231
hazard release	163	1.7%	0	0.0%	0	10	153
<b>Large truck single unit</b>	<b>5,478</b>		<b>33</b>		<b>72</b>	<b>395</b>	<b>4,978</b>
w/hazard placard	81	1.5%	3	9.1%	1	5	72
hazard release	56	1.0%	1	3.0%	0	2	53
<b>Total large trucks</b>	<b>14,796</b>		<b>133</b>		<b>194</b>	<b>1,043</b>	<b>13,426</b>
w/hazard placard	338	2.3%	7	5.3%	5	23	303
hazard release	219	1.5%	1	0.8%	0	12	206

**Notes:**

Large truck w/trailer is defined as those vehicles reported as tractor/one semi-trailer, tractor/double trailer, or tractor/triple trailer.

Large truck single unit is defined as those vehicles reported as truck (single 2 axle, 6 tires), truck (single 3 or more axles) truck/trailer (not semi), or tractor (cab only, no trailer).

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- While total collisions involving school buses increased from 2007 to 2008 (826 to 957), total fatal collisions (4 to 1) decreased.
- Total fatal injuries remained the same from 2007 to 2008 (4); however, in 2008 all the fatalities were of school bus occupants, while in 2007 there were also non-motorist and other vehicle occupant fatalities.
- Nearly 93 percent of the collisions involving school buses in 2008 were property damage only collisions, involving no reported injuries.

**Table 48. Indiana collisions involving school buses and known injuries, by collision severity, 2004-2008**

	2004		2005		2006		2007		2008	
	Count	%	Count	%	Count	%	Count	%	Count	%
<b>Total collisions involving school buses</b>	<b>946</b>	<b>100.0%</b>	<b>1,021</b>	<b>100.0%</b>	<b>853</b>	<b>100.0%</b>	<b>826</b>	<b>100.0%</b>	<b>957</b>	<b>100.0%</b>
Fatal	1	0.1%	5	0.5%	3	0.4%	4	0.5%	1	0.1%
Incapacitating	13	1.4%	14	1.4%	5	0.6%	5	0.6%	9	0.9%
Non-incapacitating	125	13.2%	123	12.0%	124	14.5%	74	9.0%	59	6.2%
Property damage only	807	85.3%	879	86.1%	721	84.5%	743	90.0%	888	92.8%
<b>Known injuries</b>										
<b>Fatal</b>	<b>1</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>4</b>	<b>100.0%</b>	<b>4</b>	<b>100.0%</b>	<b>4</b>	<b>100.0%</b>
School bus occupant	0	0.0%	1	20.0%	0	0.0%	1	25.0%	4	100.0%
Non-motorist	0	0.0%	1	20.0%	0	0.0%	2	50.0%	0	0.0%
Other vehicle occupant	1	100.0%	3	60.0%	4	100.0%	1	25.0%	0	0.0%
<b>Incapacitating</b>	<b>21</b>	<b>100.0%</b>	<b>14</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>10</b>	<b>100.0%</b>
School bus occupant	9	42.9%	0	0.0%	1	16.7%	0	0.0%	4	40.0%
Non-motorist	1	4.8%	3	21.4%	0	0.0%	0	0.0%	1	10.0%
Other vehicle occupant	11	52.4%	11	78.6%	5	83.3%	5	100.0%	5	50.0%
<b>Non-incapacitating</b>	<b>245</b>	<b>100.0%</b>	<b>277</b>	<b>100.0%</b>	<b>318</b>	<b>100.0%</b>	<b>171</b>	<b>100.0%</b>	<b>188</b>	<b>100.0%</b>
School bus occupant	101	41.2%	166	59.9%	176	55.3%	98	57.3%	137	72.9%
Non-motorist	6	2.4%	5	1.8%	4	1.3%	7	4.1%	8	4.3%
Other vehicle occupant	138	56.3%	106	38.3%	138	43.4%	66	38.6%	43	22.9%

**Notes:**

*Non-motorists consists of pedestrians or pedalcyclists.*

*Non-incapacitating includes non-incapacitating and possible injuries.*

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Ten school buses were involved in serious injury collisions in 2008; four of those buses were identified as the vehicle attributable to the primary factor of the collision.
- Only two school buses of the 808 involved in all collisions which included the top ten primary factors, were identified as the vehicle attributable to the primary factor of the collisions.

**Table 49. Number of school buses, by the top ten primary collision factors and collision severity, 2008**

Vehicle type and top 10 primary collision factors	School buses involved in...			School buses attributed to primary factor as % of serious injury
	All collisions	Serious injury collisions	Serious injury collisions where school bus contributing circumstance matched collision primary factor	
<b>School buses</b>	<b>970</b>	<b>10</b>	<b>4</b>	<b>40.0%</b>
Other - driver (explained in narrative)	158	0	0	na
Failure to yield right of way	112	1	0	0.0%
Unsafe backing	109	0	0	na
Following too closely	94	1	0	0.0%
Improper turning	92	0	0	na
Speed too fast for weather conditions	55	1	0	0.0%
Roadway surface condition	46	1	1	100.0%
Improper lane usage	37	1	1	100.0%
Disregard signal/reg sign	35	2	0	0.0%
Driver distracted (explained in narrative)	35	0	0	na
Left of center	35	1	0	0.0%
Top 10 subtotal	808	8	2	25.0%
Top 10 as % of totals	83.3%	80.0%	50.0%	

**Notes:**

Top 10 primary factors are counts of vehicles, by each vehicle type, involved in collisions. For example, there were 112 school buses involved in collisions where the primary factor for each collision was *failure to yield right of way*. Note that if the collision was a multi-vehicle collision, more than one vehicle may have contributing circumstances that match the primary factor.

*Serious injury* collisions are defined as those collisions where one or more occupants incurred injuries reported as *fatal* or *incapacitating*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Eighty-nine (89) percent of school buses involved in collisions collided with another motor vehicle (calculated from table).
- The one school bus involved in a fatal collision in 2008 collided with another motor vehicle.
- Eight school buses involved in collisions collided with a pedestrian.

**Table 50. School buses involved in collisions, by the top ten harmful events and collision severity, 2008**

Vehicle type/Harmful event	School buses involved in...				Property damage only collisions
	All collisions	Fatal collisions	Incapacitating injury collisions	Non-incapacitating injury collisions	
<b>School buses</b>	<b>970</b>	<b>1</b>	<b>9</b>	<b>60</b>	<b>900</b>
Another motor vehicle	864	1	6	47	810
Other	23	0	0	2	21
Other post/pole/support	14	0	0	1	13
Utility pole	12	0	0	0	12
Pedestrian	8	0	0	7	1
Deer	7	0	0	0	7
Wall/building/tunnel	7	0	0	0	7
Light/luminaire support	6	0	0	0	6
Tree	5	0	1	0	4
Mailbox	3	0	0	0	3
Top 10 subtotal	949	1	7	57	884
Top 10 as % of school buses	97.8%	100.0%	77.8%	95.0%	98.2%

**Source:**

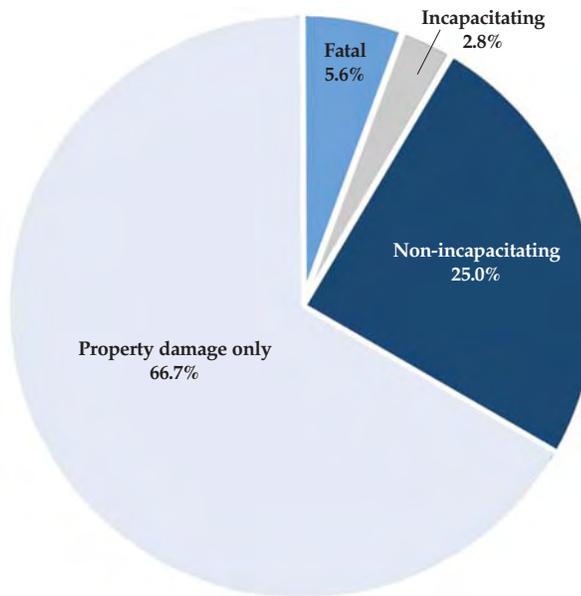
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Nine percent of vehicles that collided with a *railway vehicle, train, or engine* in urban areas resulted in a fatality, compared to under 6 percent in rural areas.
- Forty-five percent of vehicles that collided with a *railway vehicle, train, or engine* in urban areas resulted in an injury, compared to 33 percent in rural areas.

Figure 12. Vehicles that collided with a railway vehicle, train, or engine, by collision severity and locality, 2008

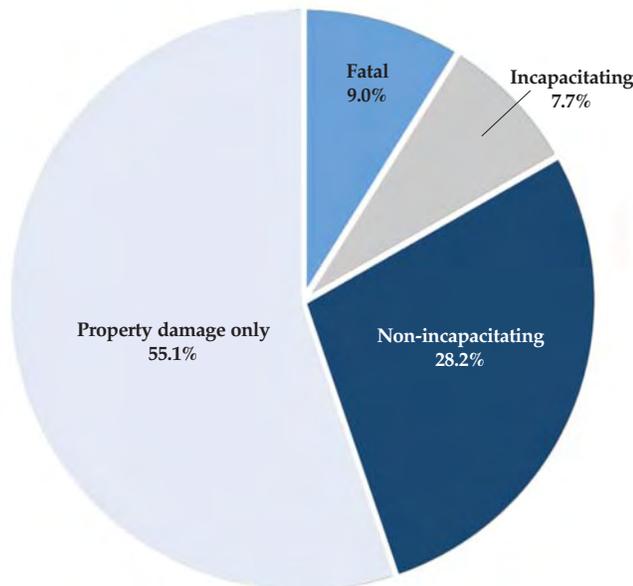
**Rural**

n = 36



**Urban**

n = 78



Source:  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

# MOTORCYCLES



## MOTORCYCLES, 2008

In 2008, there were 3,822 collisions involving motorcycles, an increase of 7.5 percent from 2007. (In the 2008 *Crash Facts*, motorcycles and mopeds are combined, unless otherwise noted.) Of these, 1,794 were classified as single-vehicle collisions (9.1 percent increase since 2007), while 2,028 were multi-vehicle. Considering all units involved in motorcycle collisions (6,012), there were 3,915 motorcycles and 2,097 other units. Among the 6,016 individuals involved in motorcycle collisions, there were 3,726 motorcycle operators and 378 motorcycle passengers. Non-motorcyclists totaled 1,912 individuals (which included 24 pedestrians and 16 pedalcyclists). Fatalities resulting from collisions involving motorcycles in 2008 totaled 130 motorcyclists, and two individuals who were in other passenger vehicles. There were an additional 2,957 motorcyclists injured in collisions. Approximately 51 percent of all motorcycle operators in collisions were properly licensed in 2008.

Motorcycle crashes in 2008 had several notable characteristics. More than 44 percent of single-vehicle motorcycle collision fatalities involved alcohol. Motorcycle collisions occurred proportionately more often in clear weather conditions, on straight roads with no intersections involved, and on local/city roads. In motorcycle collisions, other non-motorcycle vehicles are slightly more likely to have contributed to the primary factor of a collision than the involved motorcycles. Motorcycles contribute dis-

proportionately to the primary factor in multi-vehicle collisions when they involve such factors as *unsafe speed* or *improper passing*; non-motorcycle units (other vehicles) contribute disproportionately to the primary factor in multi-vehicle collisions when they involve such factors as *failure to yield right of way* or *improper turning*.

A low rate of helmet use by motorcyclists in Indiana collisions continued in 2008. Helmets were reportedly used by only 31.1 percent of motorcyclists in all collisions; this was an improvement from 2007 (28.7 percent). Among age groups, the highest rates of helmet use (as reported from collision data) were for riders 55 years or older. When riders without helmets were involved in collisions, injuries to the neck and above were reported 27 percent of the time; when helmet use was reported, the percentage of injuries located in the neck and head dropped to 8 percent. More than 42 percent of motorcyclist fatalities were characterized by injuries to the neck and head of unhelmeted riders.

Alcohol continues to be a factor in Indiana motorcycle collisions, especially those resulting in serious injuries. However, based on 2004 to 2008 patterns, the number and proportion of motorcycle operators considered seriously impaired—with blood alcohol content of 0.15 g/dL or more—have declined.

- From 2007 to 2008, motorcycle collisions increased by 7.5 percent; fatal collisions increased 6.8 percent (calculated from table).
- Fatal motorcycle collisions have averaged 6.1 percent growth annually since 2004.
- Since 2004, more than seven in ten motorcycle collisions resulted in some type of injury.

**Table 51. Number of collisions involving motorcycles, by severity, 2004-2008**

Motorcycle collision severity	2004	2005	2006	2007	2008	Average annual change
Fatal	100	113	104	117	125	6.1%
Incapacitating	399	379	440	525	462	4.6%
Non-incapacitating	1,611	1,604	1,713	1,969	2,184	8.1%
Property damage only	763	810	841	945	1,051	8.4%
<b>Total</b>	<b>2,873</b>	<b>2,906</b>	<b>3,098</b>	<b>3,556</b>	<b>3,822</b>	<b>7.5%</b>
Percent injury collisions	73.4%	72.1%	72.9%	73.4%	72.5%	

**Note:**

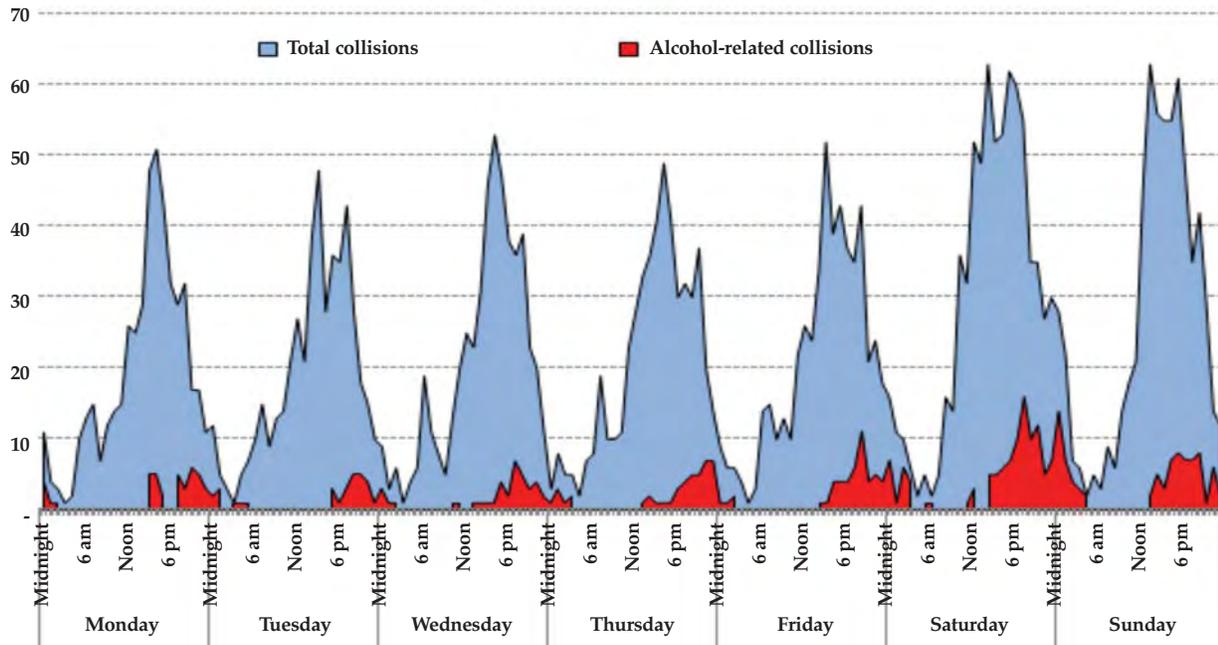
For all tables and exhibits in this section, unless otherwise noted, *motorcycles* includes *mopeds*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Motorcycle collisions peak during early morning rush hour and afternoons beginning around 4pm.
- Alcohol-related collisions involving motorcycles occurred primarily during evening and early morning hours.
- The volume of motorcycle collisions, including those that are alcohol-related, was highest on weekends.

Figure 13. Motorcycle collisions, by day, hour, and alcohol involvement, 2008



**Note:**

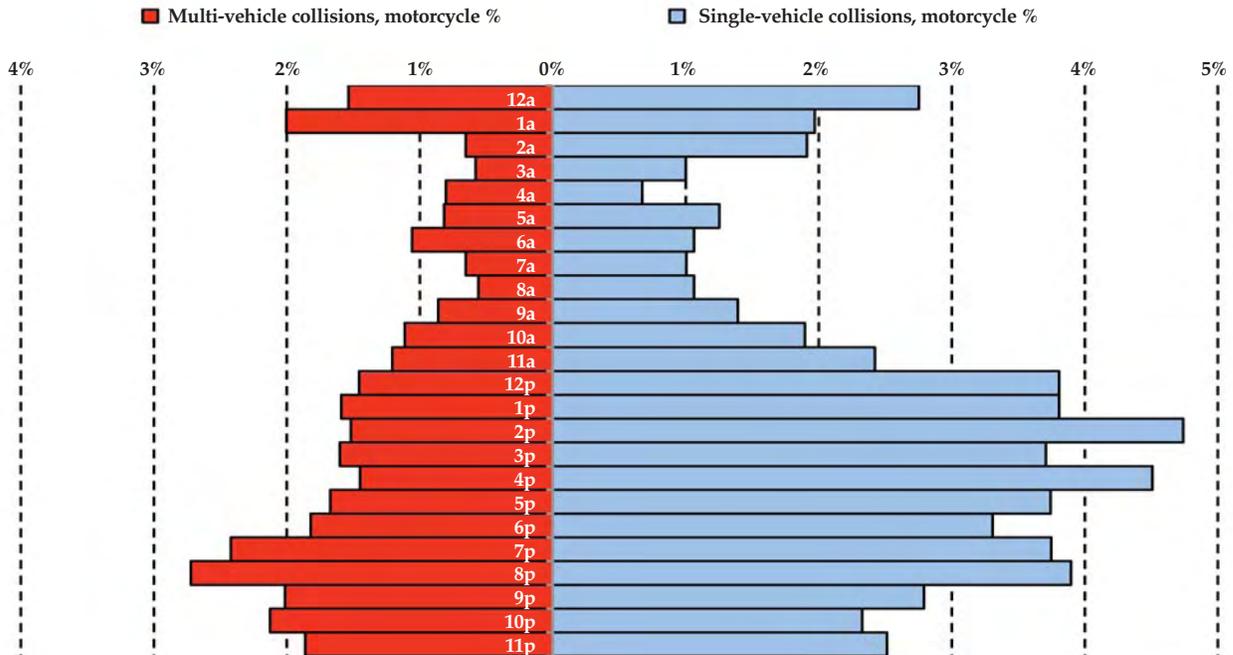
See glossary for definition of *alcohol-related*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The likelihood of a motorcycle being involved in a single-vehicle collision was highest from noon to about 8pm.
- The likelihood of motorcycle involvement in a multiple-vehicle collision was highest from about 7pm to 2am.

Figure 14. Proportion of total motor vehicle collisions with motorcycles involved, by time of day and count of vehicles involved, 2008



**Note:**

For each hour, figure shows the percentage of all single vehicle or multi-vehicle collisions that involved a motorcycle. For example, at 2pm, nearly 5 percent of all single-vehicle collisions in the state involved a motorcycle; at 8pm, nearly 3 percent of all multi-vehicle collisions in the state involved motorcycles.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Multi-vehicle collisions involving motorcycles have slightly higher fatal collision rates than single-vehicle crashes.
- Single-vehicle motorcycle crashes have higher proportions of combined fatal plus incapacitating crashes than multi-vehicle motorcycle crashes.
- Multi-vehicle collisions have higher probabilities of property damage only.

Table 52. Probability of motorcycle collision severity, by vehicles involved, 2004-2008

Type of motorcycle collision	Collision severity (percent of total annual collisions)				Total motorcycle collisions	
	Year	Fatal	Incapacitating	Non-incapacitating		Property damage only
Single-vehicle	2004	2.9%	13.2%	65.7%	18.3%	1,319
	2005	3.6%	14.4%	62.6%	19.5%	1,341
	2006	2.9%	16.6%	63.7%	16.8%	1,463
	2007	3.1%	17.4%	63.3%	16.2%	1,644
	2008	3.0%	13.4%	65.9%	17.7%	1,794
Multi-vehicle	2004	4.0%	14.5%	47.9%	33.6%	1,554
	2005	4.2%	11.9%	48.9%	35.1%	1,565
	2006	3.8%	12.0%	47.8%	36.4%	1,635
	2007	3.5%	12.5%	48.6%	35.5%	1,912
	2008	3.6%	10.9%	49.4%	36.1%	2,028

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- As in 2007, the largest numbers of motorcycle collisions occur in clear weather conditions, on straight/level roads, with no road junctions involved.
- Nearly three-quarters of motorcycle collisions (and more than two-thirds of fatal collisions) occur on local/city roads and state/US highways.
- Although small in number, motorcycle collisions on interstate highways and interchanges/ramps have a high likelihood of fatal or incapacitating injury outcomes.
- Motorcycle crashes on curves or on grades and hills result in fatal or incapacitating collision severities nearly one-fifth of the time.
- Compared to 2007, the 2008 probability of serious injury (F+I) collisions declined across nearly all categories of characteristics.

**Table 53. Characteristics of motorcycle collisions, by severity of collision, 2008**

Characteristics	Collision severity (number of collisions)					Probability of collision severity			Change in F + I '07 to '08
	Fatal	Incapacitating	Non-inca-pacitating	Property damage only	Total	Fatal (F)	Inca-pacitating (I)	F + I	
<b>ALL COLLISIONS</b>	<b>125</b>	<b>462</b>	<b>2,184</b>	<b>1,051</b>	<b>3,822</b>	<b>3.3%</b>	<b>12.1%</b>	<b>15.4%</b>	<b>-2.7</b>
<b>Weather conditions</b>									
Cloudy or poor visibility	13	66	333	148	560	2.3%	11.8%	14.1%	-5.6
Clear	110	379	1,775	861	3,125	3.5%	12.1%	15.6%	-2.3
Extreme weather	2	17	76	42	137	1.5%	12.4%	13.9%	1.3
<b>Road junctions</b>									
Interchange/ramp	4	11	55	15	85	4.7%	12.9%	17.6%	-7.0
Intersections	35	140	751	361	1,287	2.7%	10.9%	13.6%	-4.4
No junction involved	86	311	1,378	675	2,450	3.5%	12.7%	16.2%	-1.6
<b>Road character</b>									
Curves	38	105	465	144	752	5.1%	14.0%	19.0%	-4.4
Straight/grade/hillcrest	25	73	309	114	521	4.8%	14.0%	18.8%	-2.1
Straight/level	62	279	1,396	756	2,493	2.5%	11.2%	13.7%	-2.2
Non-roadway crash	0	5	13	36	54	0.0%	9.3%	9.3%	-0.1
Unknown	0	0	1	1	2	--	--	--	
<b>Road class</b>									
Interstate	6	20	67	33	126	4.8%	15.9%	20.6%	-3.5
County road	22	86	405	158	671	3.3%	12.8%	16.1%	-6.4
Highway	47	150	601	243	1,041	4.5%	14.4%	18.9%	-2.2
Local/city road	49	192	1,031	503	1,775	2.8%	10.8%	13.6%	-1.8
Unknown	1	14	80	114	209	0.5%	6.7%	7.2%	0.5

**Notes:**

Characteristics (weather, road junctions / character / class) are re-grouped from collision characteristics reported in ARIES, as shown below.

*Weather conditions* are defined as follows:

*Cloudy or poor visibility* includes cloudy, fog/smoke/smog, and blowing sand/soil/snow.

*Extreme weather* includes rain, severe cross wind, sleet/hail/freezing rain, and snow.

*Road junctions* are defined as follows:

*Intersections* includes five point or more, four-way intersection, T-intersection, traffic circle/roundabout, and Y-intersection.

*Interchange/ramp* includes interchange and ramp.

*Road character* is defined as follows:

*Curves* includes curve/grade, curve/hillcrest, and curve/level.

*Straight/grade/hillcrest* includes straight/grade and straight/hillcrest.

*Road class* is defined as follows:

*Highway* includes state road and US route.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, someone (an operator, a passenger, or both) died on 123 different motorcycles or mopeds.
- More than 2,600 other motorcycles had riders who suffered non-fatal injuries in 2008.
- Single-vehicle motorcycle fatal crashes grew annually 9.3 percent between 2004 and 2008.
- Multi-vehicle motorcycle crashes were slightly more likely to result in a motorcyclist fatality in 2008.
- About one in six single-vehicle motorcycle crashes in 2008 resulted in a fatal or incapacitating injury to a motorcyclist.
- Although more motorcycles were involved in collisions from 2007 to 2008, the probabilities of unit severity improved slightly (i.e., slight reductions in the likelihood of fatal and incapacitating unit injury outcomes).

**Table 54. Number of motorcycles involved in collisions, by unit severity, vehicles involved, 2004-2008**

Type of collision	Unit severity				Total
	Fatal	Incapacitating	Non-incapacitating	Property damage only	
<b>All collisions</b>					
2004	101	399	1,619	819	2,938
2005	112	378	1,606	869	2,965
2006	104	437	1,720	902	3,163
2007	118	523	1,973	1,042	3,656
2008	123	461	2,205	1,126	3,915
Probability of unit severity, 2008	3.1%	11.8%	56.3%	28.8%	100%
<b>Single-vehicle</b>					
2004	38	174	864	243	1,319
2005	48	191	839	263	1,341
2006	42	241	930	250	1,463
2007	51	283	1,029	281	1,644
2008	52	236	1,174	332	1,794
Probability of unit severity, 2008	2.9%	13.2%	65.4%	18.5%	100%
<b>Multi-vehicle</b>					
2004	63	225	755	576	1,619
2005	64	187	767	606	1,624
2006	62	196	790	652	1,700
2007	67	240	944	761	2,012
2008	71	225	1,031	794	2,121
Probability of unit severity, 2008	3.3%	10.6%	48.6%	37.4%	100%
<b>Average annual change, 2004-2008</b>					
All collisions	5.4%	4.5%	8.2%	8.4%	7.6%
Single-vehicle	9.3%	9.2%	8.2%	8.5%	8.1%
Multi-vehicle	3.1%	1.0%	8.3%	8.5%	7.2%

**Note:**

*Unit severity* means the highest severity level among injuries suffered by someone on a motorcycle.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The other units involved in motorcycle collisions contribute to the collision primary factor (59 percent) more frequently than motorcycles (42 percent).
- Considering all multi-vehicle collisions, nearly 29 percent of vehicles involved were vehicles other than motorcycles who contributed to the primary factor in the collision.

**Table 55. Vehicles involved in multi-vehicle motorcycle collisions, by vehicle contributing factor, 2008**

Vehicle type	Vehicle contributing circumstance = collision primary factor?		Total
	No	Yes	
<b>All units</b>			
Motorcycles	1,233	888	2,121
Other vehicles	839	1,205	2,044
Unknown	5	8	13
<i>Total</i>	<i>2,077</i>	<i>2,101</i>	<i>4,178</i>
<b>As percent of all units involved</b>			
Motorcycles	29.5%	21.3%	50.8%
Other vehicles	20.1%	28.8%	48.9%
Unknown	0.1%	0.2%	0.3%
<i>Total</i>	<i>49.7%</i>	<i>50.3%</i>	<i>100.0%</i>
<b>As percent of unit type</b>			
Motorcycles	58.1%	41.9%	100.0%
Other vehicles	41.0%	59.0%	100.0%
Unknown	38.5%	61.5%	100.0%

**Notes:**

Excludes *pedestrians* and *pedalcyclists*.

All units in a multi-vehicle collision could be units attributable to the collision primary factor.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Helmets were reportedly used by 31 percent of motorcyclists in all collisions (calculated from table).
- For motorcyclists 21 years and older, helmeted riders had lower serious injury rates.
- Lowest helmet use in all collisions (27 to 28 percent) occurred in the three age groups between 25 and 54 (calculated from table).
- Motorcycle riders 44 years and older tended to have higher serious injury rates.
- Male motorcycle operators were 2.7 times more likely to be killed in collisions than female operators.
- Female passengers (injured occupants) had the highest incidence of fatal and incapacitating injuries (21 percent).
- When license status is known, slightly more than one-half of all motorcycle operators in collisions are properly licensed.
- There is only a small difference in serious injury rates between properly licensed versus improperly licensed motorcycle operators.

**Table 56. Motorcyclists involved in collisions, by rider characteristics and injury status, 2008**

Characteristics	Individual injury status				Total	Probability of injury status		
	Fatal	Incapacitating	Non-incapacitating	All other		Fatal (F)	Incapacitating (I)	F + I
<b>Helmet use/age</b>								
<b>Helmet</b>	<b>31</b>	<b>118</b>	<b>699</b>	<b>334</b>	<b>1,182</b>	<b>2.6%</b>	<b>10.0%</b>	<b>12.6%</b>
Under 16	1	3	22	4	30	3.3%	10.0%	13.3%
16-20	7	11	68	45	131	5.3%	8.4%	13.7%
21-24	4	7	78	43	132	3.0%	5.3%	8.3%
25-34	3	14	118	61	196	1.5%	7.1%	8.7%
35-44	4	23	126	60	213	1.9%	10.8%	12.7%
45-54	7	28	134	70	239	2.9%	11.7%	14.6%
55-64	5	28	111	39	183	2.7%	15.3%	18.0%
65 and older	-	4	42	12	58	0.0%	6.9%	6.9%
<b>No helmet indicated</b>	<b>92</b>	<b>354</b>	<b>1,585</b>	<b>591</b>	<b>2,622</b>	<b>3.5%</b>	<b>13.5%</b>	<b>17.0%</b>
Under 16	1	4	70	25	100	1.0%	4.0%	5.0%
16-20	9	16	161	70	256	3.5%	6.3%	9.8%
21-24	11	24	153	48	236	4.7%	10.2%	14.8%
25-34	19	85	288	116	508	3.7%	16.7%	20.5%
35-44	17	93	350	116	576	3.0%	16.1%	19.1%
45-54	15	84	385	140	624	2.4%	13.5%	15.9%
55-64	15	38	142	67	262	5.7%	14.5%	20.2%
65 and older	5	10	35	9	59	8.5%	16.9%	25.4%
Unknown	-	-	1	-	1	-	-	-
<b>Gender</b>								
<b>Male</b>	<b>113</b>	<b>407</b>	<b>2,011</b>	<b>932</b>	<b>3,463</b>	<b>3.3%</b>	<b>11.8%</b>	<b>15.0%</b>
Operator	113	399	1,953	920	3,385	3.3%	11.8%	15.1%
Injured occupant	-	8	58	12	78	0.0%	10.3%	10.3%
<b>Female</b>	<b>16</b>	<b>91</b>	<b>447</b>	<b>83</b>	<b>637</b>	<b>2.5%</b>	<b>14.3%</b>	<b>16.8%</b>
Operator	4	40	215	78	337	1.2%	11.9%	13.1%
Injured occupant	12	51	232	5	300	4.0%	17.0%	21.0%
<b>Operators' license status</b>								
Motorcycle/endorsement	58	227	1,048	533	1,866	3.1%	12.2%	15.3%
Other operator license	50	178	868	358	1,454	3.4%	12.2%	15.7%
No license	8	32	217	89	346	2.3%	9.2%	11.6%
Percent with motorcycle license	50.0%	51.9%	49.1%	54.4%	50.9%			

**Notes:**

n = 3,804 individuals where helmet use is known.

n = 4,100 individuals where gender is known.

n = 3,666 motorcycle operators where license status is known.

Non-incapacitating includes non-incapacitating and possible injuries.

All other injury status includes not reported, null, refused, and unknown.

Motorcycle/endorsement license status includes motorcycle, chauffeur w/mc endorsement, learner motorcycle, operators w/mc endorsement, and PP chauffeur w/mc endorsement.

No helmet indicated excludes null and unknown safety equipment types.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Motorcyclists without helmets have head and neck injuries 27 percent of the time, compared to 8 percent when helmets are reported.
- Motorcyclists with helmets have proportionally more injuries to the arms and torso (32.6 percent) than those without helmets (23.8 percent).

**Table 57. Nature and location of injuries to motorcycle operators and passengers, by reported helmet use, 2008**

Nature of injury	Location of injury						Total	Percent of injuries by nature
	Neck and above	Entire body	Torso	Arms	Legs	Not indicated		
<b>No helmet indicated</b>	<b>708</b>	<b>188</b>	<b>213</b>	<b>412</b>	<b>514</b>	<b>587</b>	<b>2,622</b>	<b>100%</b>
Severed	2	0	0	0	4	0	6	0.2%
Severe bleeding	107	10	1	1	10	0	129	4.9%
Fracture/dislocation	38	21	25	76	153	0	313	11.9%
Internal	83	29	18		1	2	133	5.1%
Minor bleeding	205	14	10	70	48	1	348	13.3%
Other minor injuries	242	103	158	261	281	2	1,047	39.9%
Other	30	10	1	3	12	0	56	2.1%
None visible	1	1		1	5	13	21	0.8%
Not indicated	0	0	0	0	0	569	569	21.7%
Percent of injuries by location	27.0%	7.2%	8.1%	15.7%	19.6%	22.4%	100%	
<b>Helmet</b>	<b>95</b>	<b>119</b>	<b>126</b>	<b>259</b>	<b>251</b>	<b>332</b>	<b>1,182</b>	<b>100%</b>
Severed	0	3	0	0	0	0	3	0.3%
Severe bleeding	6	0	2	2	1	0	11	0.9%
Fracture/dislocation	4	14	15	54	66	0	153	12.9%
Internal	11	15	12		1	0	39	3.3%
Minor bleeding	22	10	3	34	19	0	88	7.4%
Other minor injuries	45	69	93	167	160	1	535	45.3%
None visible	3	4	0	1		6	14	1.2%
Not indicated	1	0	0	0	0	325	326	27.6%
Other	3	4	1	1	4	0	13	1.1%
Percent of injuries by location	8.0%	10.1%	10.7%	21.9%	21.2%	28.1%	100%	

**Notes:**

n = 3,804 individuals where helmet use is known.

Other minor injuries includes abrasion, complaint of pain, and contusion/bruise.

Location of injury is defined as follows based on ARIES categories:

Torso includes abdomen/pelvis, back, and chest.

Arms includes elbow/lower arm and shoulder/upper arm.

Neck and above includes eye, face, head, and neck.

Legs includes hip/upper leg and knee/lower leg/foot.

Not indicated includes null and invalid.

No helmet indicated excludes null and unknown safety equipment types.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Unhelmeted motorcyclists account for 70.8 percent of total motorcycle fatalities.
- The nature of injuries in nearly one-half of fatalities (46.9 percent) is classified as *internal*.
- More than 42 percent of motorcycle fatalities are characterized by injuries to the neck and head of unhelmeted riders.

**Table 58. Percentage of total motorcyclist fatalities, by helmet use and nature and location of injuries, 2008**

Helmet use/nature of injury	Location of injury					Total
	Neck and above	Entire body	Torso	Legs	Not indicated	
<b>No helmet indicated</b>	<b>42.3%</b>	<b>20.8%</b>	<b>4.6%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>70.8%</b>
Internal	16.9%	13.1%	3.1%		1.5%	34.6%
Severe bleeding	10.0%	2.3%	0.8%	0.8%		13.8%
Other	6.9%	3.8%				10.8%
Fracture/dislocation	4.6%	1.5%	0.8%			6.9%
Severed	1.5%			0.8%		2.3%
Other minor injuries	1.5%					1.5%
Minor bleeding	0.8%					0.8%
<b>Helmet</b>	<b>9.2%</b>	<b>12.3%</b>	<b>2.3%</b>			<b>23.8%</b>
Internal	3.1%	5.4%	2.3%			10.8%
Fracture/dislocation	2.3%	2.3%				4.6%
Other	0.8%	2.3%				3.1%
Severe bleeding	2.3%					2.3%
Severed		1.5%				1.5%
Other minor injuries		0.8%				0.8%
Not indicated	0.8%					0.8%
<b>Unknown</b>	<b>3.8%</b>		<b>1.5%</b>			<b>5.4%</b>
Internal	0.8%		0.8%			1.5%
Other	1.5%					1.5%
Fracture/dislocation			0.8%			0.8%
Severed	0.8%					0.8%
Severe bleeding	0.8%					0.8%
<b>Total</b>	<b>55.4%</b>	<b>33.1%</b>	<b>8.5%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>100.0%</b>

**Notes:**

n = 130 motorcycle or moped fatalities.

*Not indicated* includes *null* and *invalid*.

*No helmet indicated* excludes *null* and *unknown* safety equipment types.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The likelihood of serious injury varies, depending on the object of impact in motorcycle collisions.
- Fixed objects in the environment such as *trees, road and bridge infrastructure, and posts, signs, mailboxes* have the highest serious injury rates.
- Nearly six percent of motorcyclists were involved in collisions with *animals* (not shown in table).

**Table 59. Probability of injury status of motorcycle operators and passengers, by object of impact, 2008**

Objects of impact	Probability of individual injury status					n =
	Fatal	Incapacitating	Other injuries	Not injured	Total	
<b>Another motor vehicle</b>	<b>3.5%</b>	<b>11.5%</b>	<b>55.5%</b>	<b>29.5%</b>	<b>100%</b>	<b>2,048</b>
<b>Other actions</b>	<b>3.0%</b>	<b>10.5%</b>	<b>65.5%</b>	<b>21.0%</b>	<b>100%</b>	<b>571</b>
Other	3.7%	10.1%	64.9%	21.3%	100%	427
Overturn/rollover	0.7%	12.1%	68.1%	19.1%	100%	141
Cargo/equipment shift or loss	0.0%	0.0%	0.0%	100%	100%	1
Fire/explosion	0.0%	0.0%	0.0%	100%	100%	1
Immersion	0.0%	0.0%	100.0%	0.0%	100%	1
<b>Off the roadway</b>	<b>3.3%</b>	<b>12.3%</b>	<b>70.8%</b>	<b>13.6%</b>	<b>100%</b>	<b>545</b>
Off roadway	3.6%	13.5%	69.0%	13.9%	100%	303
Ditch	1.6%	9.5%	74.6%	14.3%	100%	189
Embankment	4.8%	11.9%	71.4%	11.9%	100%	42
Culvert	18.2%	27.3%	54.5%	0.0%	100%	11
<b>Fell from vehicle (non-collision)</b>	<b>1.5%</b>	<b>11.1%</b>	<b>70.3%</b>	<b>17.0%</b>	<b>100%</b>	<b>323</b>
<b>Animals</b>	<b>0.4%</b>	<b>11.5%</b>	<b>62.0%</b>	<b>26.1%</b>	<b>100%</b>	<b>234</b>
Deer	0.6%	11.7%	62.2%	25.6%	100%	180
Animal other than deer	0.0%	11.1%	61.1%	27.8%	100%	54
<b>Road and bridge infrastructure</b>	<b>5.7%</b>	<b>21.2%</b>	<b>58.5%</b>	<b>14.6%</b>	<b>100%</b>	<b>212</b>
Curb	2.7%	19.7%	61.9%	15.6%	100%	147
Median barrier	8.3%	12.5%	62.5%	16.7%	100%	24
Guardrail face	12.5%	29.2%	45.8%	12.5%	100%	24
Bridge rail	37.5%	0.0%	50.0%	12.5%	100%	8
Guardrail end	0.0%	62.5%	37.5%	0.0%	100%	8
Impact attenuator/crash cushion	0.0%	100.0%	0.0%	0.0%	100%	1
<b>Other traffic units</b>	<b>0.0%</b>	<b>4.0%</b>	<b>56.0%</b>	<b>40.0%</b>	<b>100%</b>	<b>50</b>
Pedestrian	0.0%	4.8%	61.9%	33.3%	100%	21
Bicycle	0.0%	0.0%	53.8%	46.2%	100%	13
Animal drawn vehicle	0.0%	0.0%	41.7%	58.3%	100%	12
Work zone maintenance equipment	0.0%	33.3%	66.7%	0.0%	100%	3
Railway vehicle/train/engine	0.0%	0.0%	100%	0.0%	100%	1
<b>Posts, signs, mailbox</b>	<b>4.4%</b>	<b>24.4%</b>	<b>64.4%</b>	<b>6.7%</b>	<b>100%</b>	<b>45</b>
Utility pole	12.5%	18.8%	68.8%	0.0%	100%	16
Other post/pole or support	0.0%	30.0%	70.0%	0.0%	100%	10
Mailbox	0.0%	30.0%	60.0%	10.0%	100%	10
Highway traffic sign post	0.0%	25.0%	62.5%	12.5%	100%	8
Light/luminaire support	0.0%	0.0%	0.0%	100%	100%	1
<b>Wall, fence, building</b>	<b>0.0%</b>	<b>29.3%</b>	<b>56.1%</b>	<b>14.6%</b>	<b>100%</b>	<b>41</b>
Fence	0.0%	28.6%	53.6%	17.9%	100%	28
Wall/building/tunnel	0.0%	30.8%	61.5%	7.7%	100%	13
<b>Tree</b>	<b>10.3%</b>	<b>10.3%</b>	<b>69.0%</b>	<b>10.3%</b>	<b>100%</b>	<b>29</b>
<b>Unknown</b>	<b>0.0%</b>	<b>0.0%</b>	<b>83.3%</b>	<b>16.7%</b>	<b>100%</b>	<b>6</b>
<b>Total</b>	<b>3.2%</b>	<b>12.1%</b>	<b>60.8%</b>	<b>23.9%</b>	<b>100%</b>	<b>4,104</b>

**Note:**  
Includes motorcycle operators and passengers only; excludes all others.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Lower percentages (of Yes) indicate collisions that were more likely to be caused by actions of the other (non-motorcycle) vehicle. For example, when the primary factor in the collision was *failure to yield right of way*, the motorcyclist *failed to yield* 15.9 percent of the time.
- High percentages mean the motorcycle operator was more of a contributor to the collision primary factor. For example, when the *primary factor* was *improper passing*, the motorcyclist was engaged in this behavior 77.8 percent of the time.
- Motorcyclists contribute disproportionately to the *primary factor* in collisions when *unsafe speed*, *speed too fast for weather conditions*, *ran off road right*, and *alcoholic beverages* are involved.
- Other vehicles/units contribute disproportionately to the *primary factor* in collisions when *unsafe backing*, *failure to yield right of way*, and *improper turning* are involved.

**Table 60. Percent of time motorcycle operator contributed to primary factor in multi-vehicle collisions, by primary factor, 2008**

Collision primary factors (driver group)	Total motorcycle operators	Motorcycle contributing circumstance matched collision primary factor		
		No	Yes	Percent Yes
Unsafe backing	31	29	2	6.5%
Failure to yield right of way	722	607	115	15.9%
Improper turning	80	51	29	36.3%
Cell phone usage	5	3	2	40.0%
Driver illness	5	3	2	40.0%
Improper lane usage	66	35	31	47.0%
Disregard signal/reg sign	86	45	41	47.7%
Driver distracted (explained in narrative)	68	32	36	52.9%
Following too closely	327	142	185	56.6%
Left of center	66	23	43	65.2%
Other (explained in narrative) - driver	193	56	137	71.0%
Wrong way on one way	4	1	3	75.0%
Improper passing	54	12	42	77.8%
Alcoholic beverages	32	7	25	78.1%
Speed too fast for weather conditions	6	1	5	83.3%
Unsafe speed	75	11	64	85.3%
Overcorrecting/oversteering	17	2	15	88.2%
Ran off road right	17	1	16	94.1%
Not a factor - driver	1	-	1	100%
Pedestrian action	1	-	1	100%
Violation of license restriction	3	-	3	100%
<b>Total</b>	<b>1,859</b>	<b>1,061</b>	<b>798</b>	<b>42.9%</b>

**Notes:**

Includes only collisions in which *driver behavior* was identified as the *primary factor* in the collision.

Excludes collisions for which *environment* or *vehicle* were identified as the *primary factor* in the collision.

Yes/no based on unit attributable indicator, which denotes a motor vehicle with a contributing factor (as assessed by the reporting officer) that matches the primary factor to the occurrence of the collision.

More than one vehicle in a collision can have a *contributing factor* that matches the primary factor.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Single-vehicle motorcycle crashes are more likely to involve alcohol than multi-vehicle collisions.
- Considering all single-vehicle motorcycle collisions, about one of six motorcyclists is identified as alcohol-related.
- Single-vehicle fatalities are nearly twice as likely to involve alcohol as multi-vehicle fatalities.

**Table 61. Individuals involved in motorcycle collisions, by vehicle type, driver alcohol status, and individual injury status, 2008**

Type of vehicle/alcohol status	Individual injury status				Total
	Fatal	Incapacitating	Non-incapacitating	All other	
<b>Single-vehicle collision</b>					
<b>Motorcycle</b>	<b>56</b>	<b>253</b>	<b>1,304</b>	<b>345</b>	<b>1,958</b>
Alcohol-related unit	25	74	176	24	299
Percent alcohol-related	44.6%	29.2%	13.5%	7.0%	15.3%
<b>Multi-vehicle collision</b>					
<b>Motorcycle</b>	<b>74</b>	<b>245</b>	<b>1,155</b>	<b>672</b>	<b>2,146</b>
Alcohol-related unit	13	23	58	22	116
Percent alcohol-related	17.6%	9.4%	5.0%	3.3%	5.4%
<b>All other units/vehicles</b>	<b>2</b>	<b>4</b>	<b>92</b>	<b>1,775</b>	<b>1,873</b>
Alcohol-related unit	2	-	2	33	37
Percent alcohol-related	100%	0.0%	2.2%	1.9%	2.0%

**Notes:**

*Non-incapacitating* includes *non-incapacitating* and *possible injuries*.

*All other* injury status includes *not reported*, *null*, *refused*, and *unknown*.

Excludes *pedestrians* and *pedalcyclists*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- With a few exceptions, there has been little change in the proportional distributions of BAC levels among motorcycle operators from 2004 to 2008.
- From 2007 to 2008, the number of seriously impaired operators (0.15 or more g/dL) declined by 23 percent (calculated from table).
- The number and proportions of seriously impaired operators has declined substantially from 2004 (92) to 2008 (47).

**Table 62. Motorcycle operators involved in collisions, by BAC (g/dL), 2004-2008**

BAC group	2004	2005	2006	2007	2008
<b>Total motorcycle operators</b>	<b>2,821</b>	<b>2,813</b>	<b>3,008</b>	<b>3,468</b>	<b>3,726</b>
No BAC reported	2,579	2,621	2,805	3,269	3,486
Percent total operators	91.4%	93.2%	93.3%	94.3%	93.6%
< 0.01	79	67	62	66	96
Percent total operators	2.8%	2.4%	2.1%	1.9%	2.6%
0.01 < 0.08	30	27	33	23	40
Percent total operators	1.1%	1.0%	1.1%	0.7%	1.1%
0.08 < 0.15	41	39	42	49	57
Percent total operators	1.5%	1.4%	1.4%	1.4%	1.5%
0.15 and greater	92	59	66	61	47
Percent total operators	3.3%	2.1%	2.2%	1.8%	1.3%

**Notes:**

Includes all individual injury status categories.  
 See glossary for definition of blood alcohol concentration (BAC).  
 g/dL = grams per deciliter.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

# PEOPLE



## PEOPLE, 2008

This section on people looks at individuals involved in Indiana fatal and non-fatal collisions in 2008. Tables and figures summarize individuals involved by age, gender, locality (rural/urban), type of injury (fatal, incapacitating, non-incapacitating), physical condition (normal, drinking, asleep/fatigued), as well as restraint usage. Data include descriptions of drivers, occupants, pedestrians, and pedalcyclists.

### HIGHLIGHTS

In 2008, there were a total of 325,774 individuals involved in motor vehicle collisions, of which 815 individuals were killed.

Children (ages 15 and under) fatalities totaled 47. There were nine pedestrian and four pedalcyclist children fatalities.

Individuals were more likely to be killed or suffer an incapacitating injury in rural collisions than in urban collisions, regardless of age.

In 2008, there were 627 drivers involved in collisions for every 10,000 licensed drivers.

Pedestrian involvement in collisions continues to increase, from a total of 1,595 in 2004 to 1,898 in 2008.

Pedalcyclists involvement in collisions decreased from 2007 to 2008 (1,170 to 1,100).

On average from 2004 to 2008, restraint use increased 1.6 percent annually.

When involved in a collision, the restraint use for male occupants of pickup trucks and SUVs was under 20 percent in 2008.

Nearly 79 percent of those killed and ejected (ejected, partially ejected, pinned under) were known not restrained.

In passenger vehicles, there were 515 drivers and 128 front seat passengers who were killed or suffered incapacitating injuries who were not properly restrained.

- There were a total of 325,774 individuals involved in motor vehicle collisions in 2008, of which 815 were killed.
- Of all age groups, males ages 18 to 20 involved in collisions had the highest fatality rate (47.9 per 100,000 population).
- Among females involved in collisions, those ages 16 to 17 were killed at the highest rate (19.1 per 100,000 population).
- Males were killed in traffic collisions at a rate more than twice that of females (18.2 vs 7.5 per 100,000 population).
- There were 6,036 children (ages 15 and under) involved in collisions including 47 deaths.

**Table 63. Individuals involved in collisions, by age, gender, and injury status, 2008**

Age in years	Population			Fatalities			Fatalities per 100K pop			Non-fatal/unknown injuries			No injury		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
< 4	181,399	173,289	354,688	5	4	9	2.8	2.3	2.5	366	348	724	290	156	694
4 - 7	179,044	170,441	349,485	5	5	10	2.8	2.9	2.9	454	477	932	59	25	128
8 - 15	356,793	340,931	697,724	25	3	28	7.0	0.9	4.0	1,324	1,446	2,773	404	262	738
16 - 17	93,922	88,862	182,784	19	17	36	20.2	19.1	19.7	1,748	2,060	3,810	8,874	7,614	16,496
18 - 20	137,743	130,489	268,232	66	20	86	47.9	15.3	32.1	2,673	2,885	5,561	15,096	12,318	27,435
21 - 24	172,396	165,235	337,631	61	25	86	35.4	15.1	25.5	2,626	2,724	5,350	15,481	12,746	28,234
25 - 34	433,266	420,431	853,697	104	35	139	24.0	8.3	16.3	4,748	4,979	9,732	30,150	22,872	53,049
35 - 44	438,767	432,064	870,831	69	32	101	15.7	7.4	11.6	4,226	4,189	8,416	26,900	19,932	46,847
45 - 54	466,180	472,313	938,493	96	35	131	20.6	7.4	14.0	3,843	4,003	7,850	25,956	17,948	43,921
55 - 64	344,186	365,202	709,388	59	30	90	17.1	8.2	12.7	2,475	2,697	5,176	17,440	11,875	29,325
65 - 74	194,953	228,470	423,423	25	17	42	12.8	7.4	9.9	1,140	1,337	2,479	8,178	5,582	13,761
75 and over	143,861	246,555	390,416	36	20	56	25.0	8.1	14.3	833	1,071	1,906	5,250	4,117	9,464
Unknown age	0	0	0	1	0	1	na	na	na	24	14	46	42	25	112
<b>TOTAL</b>	<b>3,142,510</b>	<b>3,234,282</b>	<b>6,376,792</b>	<b>571</b>	<b>243</b>	<b>815</b>	<b>18.2</b>	<b>7.5</b>	<b>12.8</b>	<b>26,480</b>	<b>28,230</b>	<b>54,755</b>	<b>154,120</b>	<b>115,472</b>	<b>270,204</b>

**Notes:**

Gender totals include cases of individuals with unknown or unreported gender types, thus may not equal the sum of male and female.  
 Non-fatal/unknown injuries includes injury status of *incapacitating*, *non-incapacitating*, *possible*, *unknown*, *not reported*, *refused (treatment)*, and *invalid injury categories*.

**Sources:**

*Individuals in collisions* Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
*Population* US Census Bureau, Population Estimates, State Characteristics, State single year of age and sex population estimates: April 1, 2000 to July 1, 2008-resident. July 1, 2008 file accessed at <http://www.census.gov/popest/states/asrh>

- Individuals were more likely to be killed or suffer an incapacitating injury in rural collisions than in urban collisions, regardless of age.
- Of the 47 children (ages 15 and under) fatalities, 28 occurred in *rural* areas. Children who suffered incapacitating injuries were evenly dispersed (123 rural, 126 urban).
- Individuals ages 75 and over in rural collisions were most likely of any age group/locality to have been killed in a collision, while individuals 55 and over in rural collisions were most likely of any age group/locality to have suffered an incapacitating injury in a collision.
- Children ages 4 to 7 were over 8 times more likely to be killed in a rural collision than an urban collision.

Table 64. Individuals with fatalities or incapacitating injuries in traffic collisions, by age and locale, 2008

Age group	Rural					Urban					Rural fatality risk	Rural incapacitating injury risk
	Fatalities	Incapacitating	Total involved	% Fatal	% Incapacitating injury	Fatalities	Incapacitating	Total involved	% Fatal	% Incapacitating injury		
< 4	4	20	241	1.7%	8.3%	5	18	440	1.1%	4.1%	1.46	2.03
4 - 7	8	22	301	2.7%	7.3%	2	22	630	0.3%	3.5%	8.37	2.09
8 - 15	16	81	1,067	1.5%	7.6%	12	86	1,684	0.7%	5.1%	2.10	1.49
16 - 17	30	121	1,774	1.7%	6.8%	6	57	1,617	0.4%	3.5%	4.56	1.93
18 - 20	59	166	2,189	2.7%	7.6%	27	148	2,869	0.9%	5.2%	2.86	1.47
21 - 24	53	160	1,804	2.9%	8.9%	33	152	3,050	1.1%	5.0%	2.72	1.78
25 - 34	88	275	3,222	2.7%	8.5%	51	327	5,480	0.9%	6.0%	2.93	1.43
35 - 44	59	255	2,750	2.1%	9.3%	42	314	4,745	0.9%	6.6%	2.42	1.40
45 - 54	85	234	2,600	3.3%	9.0%	46	268	4,471	1.0%	6.0%	3.18	1.50
55 - 64	64	178	1,763	3.6%	10.1%	26	181	2,900	0.9%	6.2%	4.05	1.62
65 - 74	26	80	772	3.4%	10.4%	16	88	1,459	1.1%	6.0%	3.07	1.72
75 and over	32	62	596	5.4%	10.4%	24	65	1,171	2.0%	5.6%	2.62	1.87
Unknown age	0	1	24	0.0%	4.2%	1	0	8	12.5%	0.0%	0.00	na
<b>Total</b>	<b>524</b>	<b>1,655</b>	<b>19,103</b>	<b>2.7%</b>	<b>8.7%</b>	<b>291</b>	<b>1,726</b>	<b>30,524</b>	<b>1.0%</b>	<b>5.7%</b>	<b>2.88</b>	<b>1.53</b>

**Notes:**

Excludes *pedestrians, pedalcyclists*, and individuals with an unknown locality.

*Total involved* includes individuals with a reported injury status of *fatal, incapacitating, non-incapacitating*, and *possible* injuries.

*Urban* locality collisions are those that occurred within the incorporated limits of a city.

*Rural* locality collisions occurred outside the incorporated limits of a city.

*Rural fatality risk/rural incapacitating risk* is defined as ratio of likelihood of fatality/incapacitating injury in rural collision (% fatal/incapacitating injury, rural) to likelihood in urban collision (% fatal/incapacitating injury, urban).

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, pedestrians and motorcycle riders had the highest likelihood of being killed in traffic collisions (31.6 and 31.7, respectively).
- Pedestrians have one of the lowest rates of non-injury (10.3 percent), perhaps reflecting their lack of protection against vehicles.
- In comparison to occupants of four-wheeled motor vehicles, non-motorists have much lower rates of non-injury.

**Table 65. Individuals involved in collisions, by person type and injury status, 2008**

Unit type/person type	Injury status						Total individuals	% not injured
	Fatal	Fatalities per 1,000 total involved	Incapacitating	Non-incapacitating	Unknown/other injury	Not injured		
<b>Vehicle occupants</b>								
Driver	436	1.4	1,904	29,385	5,667	268,627	<b>306,019</b>	87.8%
Passenger	173	13.7	691	11,420	155	214	<b>12,653</b>	1.7%
<b>Motorcycle/moped riders</b>	130	31.7	498	2,459	38	979	<b>4,104</b>	23.9%
<b>Non-occupants</b>								
Pedestrians	60	31.6	223	1,382	38	195	<b>1,898</b>	10.3%
Pedalcyclists	16	14.5	66	809	20	189	<b>1,100</b>	17.2%
<b>TOTAL</b>	<b>815</b>	<b>2.5</b>	<b>3,382</b>	<b>45,455</b>	<b>5,918</b>	<b>270,204</b>	<b>325,774</b>	<b>82.9%</b>

**Note:**

*Unknown/other injury* includes injury status of *not reported*, *unknown*, *refused* (treatment), and invalid injury codes.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, there were 627 drivers involved in collisions for every 10,000 licensed drivers.
- The 16 and 17 age group represents the lowest percentage of licensed drivers (0.5 percent), but the highest rates per 10,000 licensed drivers involved in fatal collisions (19.6), all collisions, and drivers killed (7.8).
- The rate of licensed drivers killed and in fatal collisions generally decreased with age.
- The 35 to 44 age group represents one of the highest percentages of licensed drivers, whereas the same age group has one of the lowest rates of drivers killed (0.8) per 10,000 licensed drivers.

Table 66. Drivers in collisions, by age and rate, 2008



Age	Licensed drivers		Drivers in fatal collisions			Drivers killed			Drivers in all collisions		
	Count	% total	Count	% total	Per 10,000 licensed	Count	% total	Per 10,000 licensed	Count	% total	Per 10,000 licensed
< 16	0	0.0%	7	0.6%	na	5	0.9%	na	1,659	0.5%	na
16 - 17	24,493	0.5%	48	4.3%	19.6	19	3.4%	7.8	18,990	6.1%	7,753.2
18 - 20	267,112	5.4%	93	8.3%	3.5	55	9.9%	2.1	31,508	10.2%	1,179.6
21 - 24	392,919	8.0%	105	9.4%	2.7	56	10.1%	1.4	32,276	10.4%	821.4
25 - 34	870,522	17.6%	215	19.3%	2.5	114	20.6%	1.3	60,863	19.6%	699.2
35 - 44	899,250	18.2%	197	17.7%	2.2	75	13.5%	0.8	53,800	17.4%	598.3
45 - 54	978,674	19.8%	221	19.8%	2.3	102	18.4%	1.0	50,372	16.3%	514.7
55 - 64	756,464	15.3%	123	11.0%	1.6	62	11.2%	0.8	33,594	10.8%	444.1
65 - 74	434,420	8.8%	62	5.6%	1.4	31	5.6%	0.7	15,672	5.1%	360.8
75 and over	316,731	6.4%	44	3.9%	1.4	35	6.3%	1.1	10,906	3.5%	344.3
Unknown age	0	0.0%	0	0.0%	na	0	0.0%	na	105	0.0%	na
<b>Total</b>	<b>4,940,585</b>	<b>100.0%</b>	<b>1,115</b>	<b>100.0%</b>	<b>2.3</b>	<b>554</b>	<b>100.0%</b>	<b>1.1</b>	<b>309,745</b>	<b>100.0%</b>	<b>626.9</b>

Notes:

Licensed and/or permit driver counts were not available or incomplete for 15 year-olds.  
na=not applicable

Sources:

Drivers in collisions Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Licensed drivers Indiana Bureau of Motor Vehicles, February 16, 2008

- Nearly 52 percent of the drivers in fatal collisions were classified with an apparent physical condition of *normal*.
- For every 1,000 drivers classified as being on *drugs or medication*, 21 were involved in fatal collisions and 11 were killed. Drivers identified at the time of a collision as having a physical condition of *drugs/medication* had the highest fatal collision and drivers killed rates.

Table 67. Drivers involved in collisions, by apparent physical condition, 2008



Apparent physical condition	Drivers				
	Killed	In fatal collisions	In all collisions	Killed rate	Fatal collision rate
Normal	152	588	292,260	0.5	2.0
Had been drinking	77	128	8,326	9.2	15.4
Asleep/fatigued	10	21	2,768	3.6	7.6
Illness	15	17	1,516	9.9	11.2
Drugs/medication	12	23	1,077	11.1	21.4
Handicapped	0	1	278	0.0	3.6
Unknown	305	358	4,082	74.7	87.7
<b>Total</b>	<b>571</b>	<b>1,136</b>	<b>310,307</b>	<b>1.8</b>	<b>3.7</b>

Notes:

Killed rate is defined as drivers killed per 1,000 in all collisions for each condition.  
Fatal collision rate is defined as drivers in fatal collisions per 1,000 in all collisions for each condition.  
A driver can be assigned more than one condition type; totals will not match actual unique individual totals.

Source:

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Of drivers involved in fatal collisions, nearly 4 percent had no license and nearly 2 percent had only a learner permit.
- Ninety-eight percent of drivers involved in collisions were known to have valid drivers licenses (not shown).
- Of drivers involved in fatal collisions, none held probationary licenses.
- Drivers with a motorcycle license had the highest risk of fatality (1 percent), followed by those with learner permits and no licenses (0.5 percent).
- When involved in a collision, drivers with a commercial license had the highest percentage (93.1 percent) of non-injuries, followed by those with a chauffeur license (89.2 percent).

Table 68. Drivers involved in collisions, by license type and injury status, 2008



License type	Driver injury status							Total	Fatal, as % overall total
	Fatal	% of fatal total	Incapacitating	Non-incapacitating	Unknown	No injury	% Not injured		
Operator	403	73.1%	1,807	27,404	5,008	232,550	87.0%	267,172	0.2%
Commercial driver	32	5.8%	81	783	271	15,834	93.1%	17,001	0.2%
Motorcycle	70	12.7%	238	1,383	104	5,056	73.8%	6,851	1.0%
No license	21	3.8%	84	697	68	3,486	80.0%	4,356	0.5%
Chauffeur	9	1.6%	29	310	52	3,307	89.2%	3,707	0.2%
Probationary operator	0	0.0%	22	285	38	2,551	88.1%	2,896	0.0%
Learner permit	10	1.8%	45	361	33	1,527	77.3%	1,976	0.5%
Unknown license type	6	1.1%	9	132	52	1,393	87.5%	1,592	0.4%
<b>Total</b>	<b>551</b>	<b>100.0%</b>	<b>2,315</b>	<b>31,355</b>	<b>5,626</b>	<b>265,704</b>	<b>87.0%</b>	<b>305,551</b>	<b>0.2%</b>

**Notes:**

Includes only drivers of motorcycles/mopeds, passenger cars, SUVs, vans, pickups, and large trucks.

Chauffeur includes chauffeur and public passenger chauffeur license.

Motorcycle includes motorcycle, chauffeur with MC endorsement, operators with MC endorsement, and public passenger chauffeur with MC endorsement.

Learner permit includes learner permit, drivers education learners permit, and learner motorcycle.

Non-incapacitating includes non-incapacitating and possible injuries.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Pedestrian involvement in collisions continues to increase, from a total of 1,595 in 2004 to 1,898 in 2008.
- Fatalities of pedestrians remained the same from 2007 to 2008 (60).
- While the number of pedestrians killed remained the same from 2007 to 2008, the proportion of fatalities decreased slightly (0.1 percent) for the same time frame and was the lowest percentage for the five years (2 percent).
- The proportion of pedestrians involved in collisions with no injuries increased from 2006 to 2008.

Figure 15. Pedestrians involved in collisions, by injury status, 2004-2008

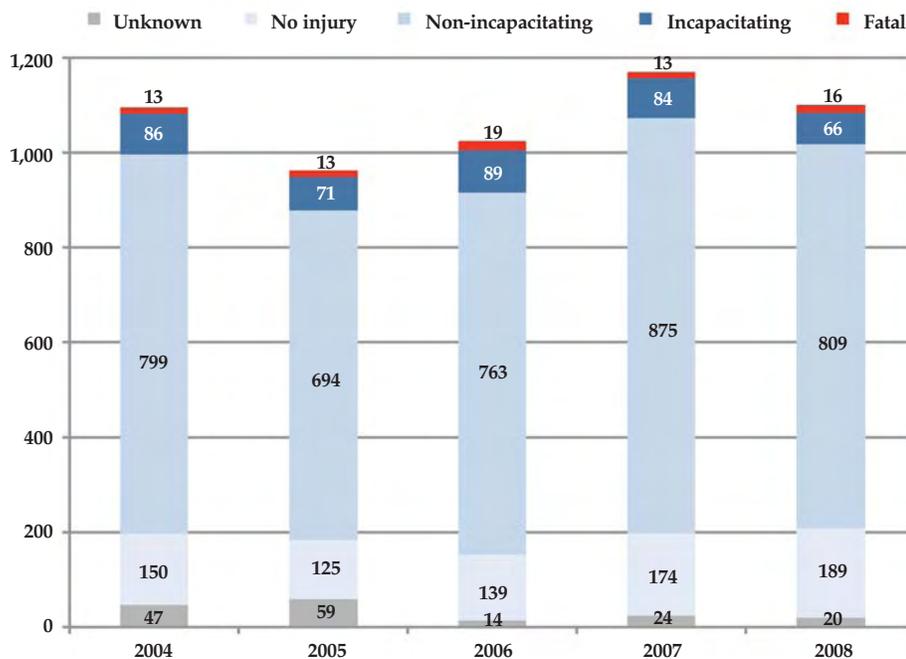


**Notes:**  
*Non-incapacitating* includes injury statuses reported as *non-incapacitating* and *possible*.  
*No injury* includes the injury status of blank.

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Pedalcyclist involvement in collisions decreased from 2007 to 2008 (1,170 to 1,100).
- Pedalcyclist fatalities increased from 2007 to 2008 (13 to 16), but was lower than the five-year high in 2006 of 19.
- The proportion of pedalcyclists with no injuries increased 2.3 percentage points from 2007 to 2008 (14.9 to 17.2 percent).
- The number and proportion of pedalcyclists suffering incapacitating injuries was the lowest in 2008 for the five year period.

Figure 16. Pedalcyclists involved in collisions, by injury status, 2004-2008



**Notes:**  
*Non-incapacitating* includes injury statuses reported as *non-incapacitating* and *possible*.  
*No injury* includes the injury status of blank.

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- There were four times as many male pedestrians killed as females (48 vs 12).
- Nine of the pedestrians killed were children (ages 15 and under) and 425 other pedestrian children were involved in collisions.
- Nearly 40 percent of male and 38 percent of female pedestrians with non-fatal or no injuries were ages 25 to 54.

Figure 17. Pedestrians killed in motor vehicle collisions, by age and gender, 2008

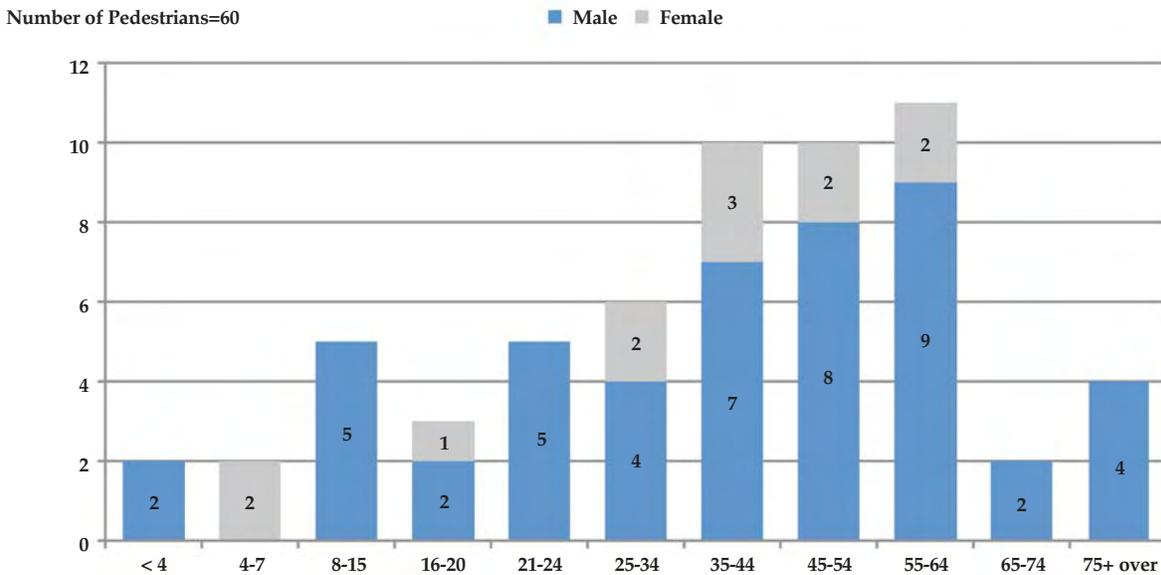
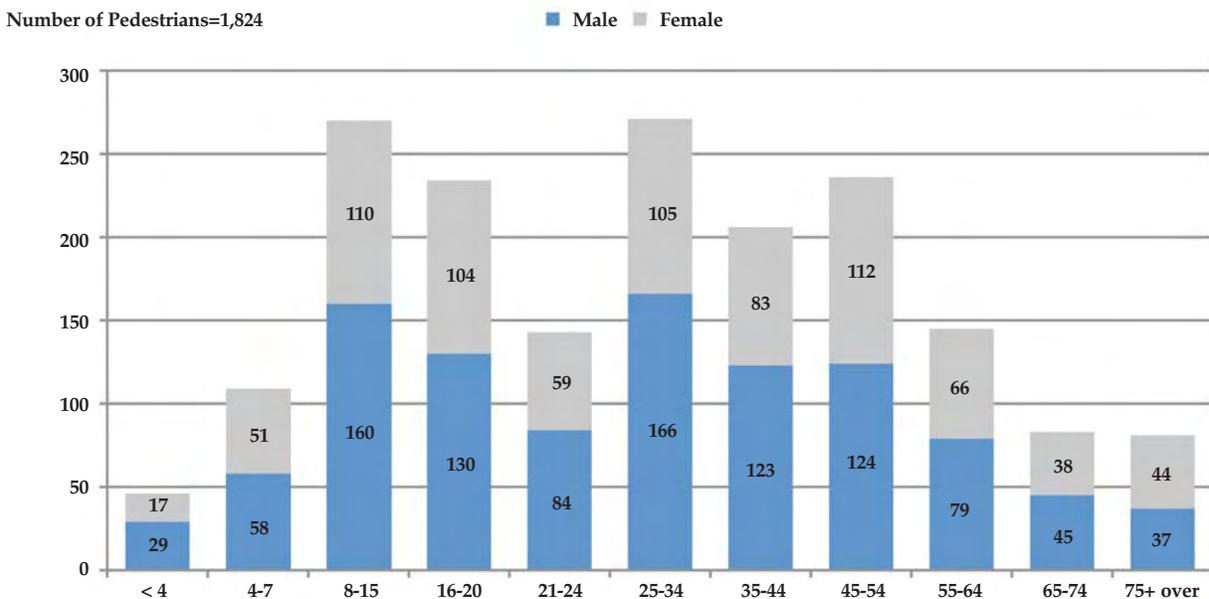


Figure 18. Pedestrians with non-fatal, unknown, or no injuries involved in motor vehicle collisions, by age and gender, 2008



**Note:**  
Excludes pedestrians with missing or invalid ages or gender.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- While *crossing not at an intersection* was the pedestrian action with the highest number of fatalities, *crossing at an intersection* was the action with the highest number for pedestrians surviving collisions.
- One fatality and 32 non-fatalities occurred to pedestrians *working*.
- Of the known pedestrian actions, *being on the roadway* posed the highest risk of fatality.

**Table 69: Pedestrians involved in motor vehicle collisions, by pedestrian action, 2008**

	Low	<	<	>	>	High
Pedestrian action	Fatalities	Survivors	Total involved	% Fatal		
Crossing at intersection	7	367	374	1.9%		
Crossing not at intersection	19	336	355	5.4%		
Other	6	344	350	1.7%		
On roadway	16	207	223	7.2%		
Standing	2	126	128	1.6%		
Moving	0	123	123	0.0%		
Not in roadway	3	111	114	2.6%		
Getting in/out of vehicle	0	41	41	0.0%		
On shoulder	1	37	38	2.6%		
Working	1	32	33	3.0%		
Against traffic	2	30	32	6.3%		
With traffic	1	31	32	3.1%		
On designated non-motorist lane	0	26	26	0.0%		
Unknown	2	23	25	8.0%		
Getting on/off school bus	0	4	4	0.0%		
<b>Total</b>	<b>60</b>	<b>1,838</b>	<b>1,898</b>	<b>3.2%</b>		

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Tuesdays and Fridays were the days with the highest numbers of non-motorists involved in collisions.
- Non-motorists were involved in collisions mainly between the hours of 3pm and 6pm.
- Weekends had the fewest numbers of non-motorists involved in collisions.

**Figure 19. Non-motorists involved in collisions, by time of day and day of week, 2008**

Time	<div style="display: flex; justify-content: space-around; align-items: center;"> <span>Low</span> <span>&lt;</span> <span>&lt;</span> <span>&gt;</span> <span>&gt;</span> <span>High</span> </div>							Total by hour	% by hour
	Sun	Mon	Tue	Wed	Thu	Fri	Sat		
12am-	10	2	8	2	4	2	16	44	1.5%
1am-	9	2	3	3	6	1	14	38	1.3%
2am-	7	2	5	2	2	1	14	33	1.1%
3am-	12	2	4		5	3	6	32	1.1%
4am-	3		1		1	2	3	10	0.3%
5am-	2	4	6	6	2	7	2	29	1.0%
6am-		5	10	11	6	12	4	48	1.6%
7am-	5	41	32	38	19	16	2	153	5.1%
8am-	2	14	22	19	14	14	8	93	3.1%
9am-	4	11	17	11	17	28	14	102	3.4%
10am-	9	20	17	18	13	16	16	109	3.6%
11am-	9	17	23	18	18	15	24	124	4.1%
12pm-	23	15	32	28	23	29	18	168	5.6%
1pm-	23	14	18	27	28	30	24	164	5.5%
2pm-	16	39	26	34	33	30	33	211	7.0%
3pm-	19	55	40	54	44	36	23	271	9.0%
4pm-	19	42	42	43	41	57	21	265	8.8%
5pm-	23	37	61	32	43	43	29	268	8.9%
6pm-	25	36	33	31	44	37	26	232	7.7%
7pm-	22	26	35	22	33	19	20	177	5.9%
8pm-	20	24	15	21	17	27	16	140	4.7%
9pm-	13	26	15	21	18	23	27	143	4.8%
10pm-	9	11	10	12	6	20	15	83	2.8%
11pm-	9	6	13	4	7	11	11	61	2.0%
<b>Total</b>	<b>293</b>	<b>451</b>	<b>488</b>	<b>457</b>	<b>444</b>	<b>479</b>	<b>386</b>	<b>2,998</b>	<b>100%</b>
<b>% by day</b>	<b>9.8%</b>	<b>15.0%</b>	<b>16.3%</b>	<b>15.2%</b>	<b>14.8%</b>	<b>16.0%</b>	<b>12.9%</b>	<b>100%</b>	

**Note:**

Excludes non-motorists (*pedestrians, pedalcyclists*) with unknown time of day or day of week.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, overall *restraint use* was over 90 percent.
- On average from 2004 to 2008, *restraint use* increased 1.6 percent annually.
- From 2007 to 2008, incapacitating injuries decreased by 198, as the percentage of restraint use in incapacitating injury collisions increased 6.7 percent.
- While restraint use continued to increase each year, fatal injury restraint use remained less than 50 percent.

**Table 70. Vehicle occupants involved in traffic collisions, by restraint use and injury status, 2004-2008**

Individuals	2004	2005	2006	2007	2008	Average annual change	2007 to 2008 change
<b>All occupants</b>	<b>344,460</b>	<b>338,630</b>	<b>309,580</b>	<b>322,929</b>	<b>318,310</b>	<b>-1.8%</b>	<b>-4,619</b>
% restraint use	84.6%	84.1%	85.6%	89.0%	90.2%	1.6%	1.2%
<b>Fatal injuries</b>	<b>752</b>	<b>748</b>	<b>695</b>	<b>698</b>	<b>607</b>	<b>-5.1%</b>	<b>-91</b>
% restraint use	40.4%	40.8%	39.4%	43.4%	44.0%	2.2%	0.6%
<b>Incapacitating injuries</b>	<b>3,254</b>	<b>3,127</b>	<b>3,021</b>	<b>2,786</b>	<b>2,588</b>	<b>-5.5%</b>	<b>-198</b>
% restraint use	63.4%	61.1%	63.6%	64.8%	71.4%	3.1%	6.7%
<b>Non-incapacitating injuries</b>	<b>53,871</b>	<b>51,777</b>	<b>47,475</b>	<b>44,343</b>	<b>40,769</b>	<b>-6.7%</b>	<b>-3,574</b>
% restraint use	81.3%	80.9%	82.0%	85.6%	87.3%	1.8%	1.7%
<b>Unknown/other injuries</b>	<b>29,327</b>	<b>34,245</b>	<b>21,552</b>	<b>8,313</b>	<b>5,817</b>	<b>-27.9%</b>	<b>-2,496</b>
% restraint use	85.6%	84.5%	84.2%	85.0%	88.5%	0.9%	3.5%
<b>Not injured</b>	<b>257,256</b>	<b>248,733</b>	<b>236,837</b>	<b>266,789</b>	<b>268,529</b>	<b>1.3%</b>	<b>1,740</b>
% restraint use	85.6%	85.1%	86.8%	90.1%	91.0%	1.5%	0.9%

**Notes:**

Excludes *pedestrians* and *pedalcyclists* and unit types of *bicycles, pedestrians, farm vehicles, motorcycles, and mopeds*.

The remaining percentage not shown consists of individuals known to be not restrained and individuals with unknown restraint use.

*Restraint use* includes the use of one of the following: *lap belt only, harness, airbag deployed and harness, child restraint, or lap and harness*.

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

*Unknown/other injuries* include *not reported, unknown, refused* (treatment), and invalid injury codes.

*Not injured* includes individuals reported with blank values in the injury status code field.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- For the most part, as restraint use increased, the injury level decreased (fatal to no injury).
- Generally, older drivers and occupants restraint use increased with age.
- For all age groups, restraint use was lowest for those individuals who were killed.
- Individuals ages 25 to 34 who were killed had the lowest restraint use percentage of all age groups (29.4 percent).

**Table 71. Vehicle occupants involved in collisions, by age, restraint use, and injury severity, 2008**

Age group	Fatal	Incapacitating	Non-incapacitating	Unknown/other injury	Not injured	Total
<b>&lt;16</b>	<b>32</b>	<b>168</b>	<b>3,344</b>	<b>90</b>	<b>1,408</b>	<b>5,042</b>
% restraint use	56.3%	71.4%	84.2%	73.3%	53.4%	74.8%
<b>16 - 17</b>	<b>33</b>	<b>166</b>	<b>2,972</b>	<b>448</b>	<b>16,432</b>	<b>20,051</b>
% restraint use	48.5%	62.7%	84.6%	91.1%	91.2%	89.9%
<b>18 - 20</b>	<b>68</b>	<b>269</b>	<b>4,293</b>	<b>575</b>	<b>27,300</b>	<b>32,505</b>
% restraint use	33.8%	65.4%	83.7%	84.3%	90.8%	89.5%
<b>21 - 24</b>	<b>65</b>	<b>258</b>	<b>4,028</b>	<b>567</b>	<b>28,078</b>	<b>32,996</b>
% restraint use	32.3%	63.2%	84.6%	88.2%	90.3%	89.2%
<b>25 - 34</b>	<b>109</b>	<b>464</b>	<b>7,252</b>	<b>1,153</b>	<b>52,766</b>	<b>61,744</b>
% restraint use	29.4%	67.5%	85.7%	87.3%	90.6%	89.7%
<b>35 - 44</b>	<b>67</b>	<b>417</b>	<b>6,064</b>	<b>1,009</b>	<b>46,565</b>	<b>54,122</b>
% restraint use	49.3%	73.9%	87.2%	89.4%	91.2%	90.5%
<b>45 - 54</b>	<b>91</b>	<b>339</b>	<b>5,608</b>	<b>888</b>	<b>43,586</b>	<b>50,512</b>
% restraint use	42.9%	75.8%	90.4%	89.1%	91.8%	91.4%
<b>55 - 64</b>	<b>56</b>	<b>260</b>	<b>3,803</b>	<b>592</b>	<b>29,149</b>	<b>33,860</b>
% restraint use	57.1%	81.5%	93.1%	91.2%	92.2%	92.1%
<b>65 - 74</b>	<b>36</b>	<b>135</b>	<b>1,875</b>	<b>289</b>	<b>13,706</b>	<b>16,041</b>
% restraint use	61.1%	79.3%	93.1%	90.7%	92.2%	92.1%
<b>75 and over</b>	<b>50</b>	<b>111</b>	<b>1,502</b>	<b>193</b>	<b>9,449</b>	<b>11,305</b>
% restraint use	62.0%	80.2%	92.5%	92.2%	91.2%	91.1%

**Notes:**

Includes only individuals with valid age.

Excludes *pedestrians* and *pedalcyclists* and unit types of *bicycles, pedestrians, farm vehicles, motorcycles, and mopeds*.

The remaining percentage not shown consists of individuals known not restrained and individuals with unknown restraint use.

*Restraint use* includes the use of one of the following: *lap belt only, harness, airbag deployed and harness, child restraint, or lap and harness*.

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

*Unknown/other injuries* include *not reported, unknown, refused (treatment),* and invalid injury codes.

*Not injured* includes individuals reported with blank values in the injury status code field.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The restraint use for male occupants of pickup trucks and SUVs was under 20 percent.
- Females generally were more properly restrained than males in all vehicle types.
- Occupants of vans had the highest restraint use percentage of all vehicle types (88.8 percent).
- Of the 5,338 people in pickup trucks killed or with non-fatal injuries, 77.1 percent were properly restrained, an increase from 2007 (68 percent).
- Of persons killed, female occupants of vans had the highest percentage of restraint use (excluding buses).

**Table 72. Vehicle occupants killed and injured in collisions, by restraint use, vehicle type, and gender, 2008**

Vehicle type	Fatal		Non-fatal injury		Total
	Male	Female	Male	Female	
<b>Buses</b>	<b>3</b>	<b>1</b>	<b>134</b>	<b>161</b>	<b>299</b>
% restraint use	100.0%	100.0%	21.6%	21.1%	22.4%
<b>Passenger cars</b>	<b>245</b>	<b>151</b>	<b>10,698</b>	<b>16,709</b>	<b>27,803</b>
% restraint use	47.8%	57.0%	84.3%	91.5%	88.2%
<b>Pickup trucks</b>	<b>76</b>	<b>15</b>	<b>3,776</b>	<b>1471</b>	<b>5,338</b>
% restraint use	17.1%	53.3%	76.0%	83.3%	77.1%
<b>SUVs</b>	<b>38</b>	<b>30</b>	<b>2,489</b>	<b>3,761</b>	<b>6,318</b>
% restraint use	18.4%	33.3%	81.5%	91.0%	86.6%
<b>Vans</b>	<b>20</b>	<b>13</b>	<b>1,469</b>	<b>2,040</b>	<b>3,542</b>
% restraint use	45.0%	61.5%	83.9%	92.8%	88.8%
<b>Large trucks</b>	<b>10</b>	<b>1</b>	<b>346</b>	<b>26</b>	<b>383</b>
% restraint use	50.0%	0.0%	77.5%	88.5%	77.3%
<b>Other vehicle types</b>	<b>3</b>	<b>1</b>	<b>180</b>	<b>69</b>	<b>253</b>
% restraint use	0.0%	0.0%	35.6%	37.7%	35.6%

**Notes:**

Excludes *pedestrians* and *pedalcyclists* and unit types of *bicycles*, *pedestrians*, *farm vehicles*, *motorcycles*, and *mopeds*.

The remaining percentage not shown consists of individuals known not restrained and individuals with unknown restraint use.

*Large trucks* is defined as one of the following types, as defined on the *Indiana Crash Report*, *truck (single 2 axle, 6 tires)*, *truck (single 3 or more axles)*, *truck/trailer (not semi)*, *tractor/one semi-trailer*, *tractor/double trailer*, *tractor/triple trailer*, *tractor (cab only, no trailer)*, *pickup truck* with gross vehicle weight rating greater than 10,000 pounds.

*Other vehicle types* consists of *unknown*, *combination vehicles*, and *motor homes/RVs*.

*Restraint use* includes the use of one of the following: *lap belt only*, *harness*, *airbag deployed and harness*, *child restraint*, or *lap and harness*.

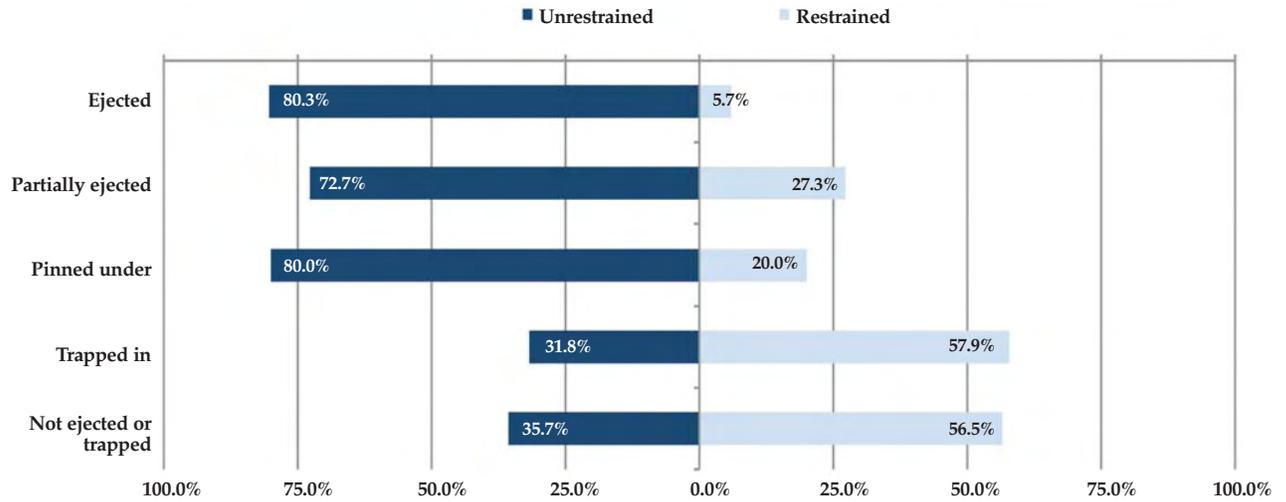
*Non-fatal injury* includes injury statuses of *incapacitating*, *non-incapacitating*, and *possible*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Persons unrestrained were more likely to be ejected and suffer a fatal injury.
- Nearly 79 percent of those killed and ejected (ejected, partially ejected, pinned under) were known to be unrestrained (130 of 165), a 3 percent increase from 2007.
- Almost half (48.9 percent, 130 of 266) of those killed and known unrestrained were ejected (ejected, partially ejected, pinned under).

Figure 20. Passenger vehicle fatalities in traffic collisions, by ejection status and restraint use, 2008



**Notes:**

Includes vehicle types of *passenger cars, pickup trucks, SUVs, and vans.*

Excludes unknown ejection status.

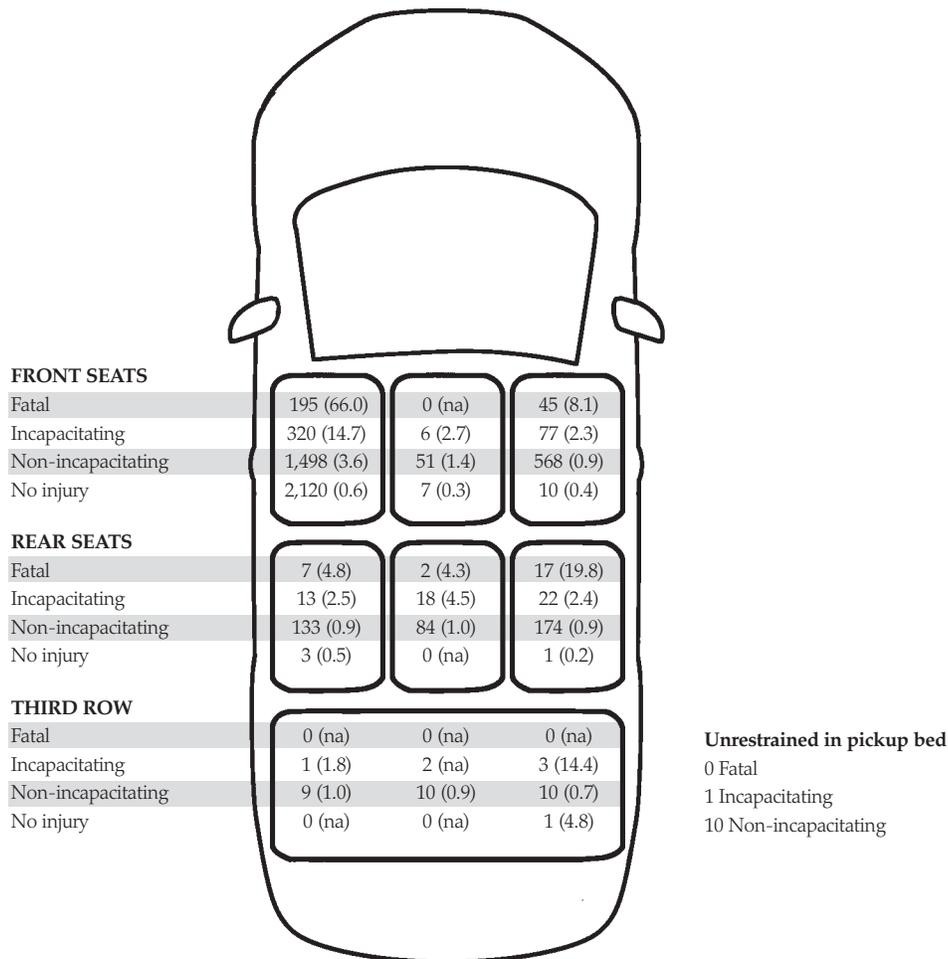
Percents are individuals killed known to be restrained or not restrained as a percent of the total of individuals for each ejection status. For example, 80.3 percent represents 98 individuals killed, ejected, and known not restrained of 122 individuals known to be ejected.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In passenger vehicles, there were 515 drivers and 128 front seat passengers who were killed or suffered incapacitating injuries who were not properly restrained.
- If involved in a collision, a driver of a passenger vehicle was 66 times more likely to have been killed if unrestrained than a driver who was restrained.
- In 2008, a person sitting in the right rear seat of a passenger vehicle who was unrestrained was more likely to be killed than a front right seat passenger who was unrestrained.
- Compared to 2007, fatalities and injuries of unrestrained persons in the bed of a pickup truck decreased significantly (23 to 11) (not shown).

**Figure 21. Individuals known to be unrestrained in passenger vehicles involved in collisions, by seat positions and injury status, 2008**



**Notes:**

Calculations include only individuals where injury status, restraint use, and seat position were known.

Excludes positions of *outside left, outside center, outside right, and outside rear.*

Numbers shown represent the number of known unrestrained persons in each seat position and the relative risk of injury (in parenthesis) for that injury and seat position if unrestrained.

Relative risk of injury is defined as the ratio of persons who incurred the injury given they were unrestrained, to those who incurred the injury given they were restrained.

Includes persons in passenger vehicles only (*passenger cars, SUVs, vans, pickup trucks*) and where restraint use is known.

na = not applicable; there were no persons in that seat position or no persons in that seat position restrained.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009





## ALCOHOL, 2008

A collision in the Indiana State Police Automated Reporting and Information Exchange System (ARIES) is identified as alcohol-related if any of the following conditions are met: (1) *alcoholic beverages* is listed as the primary factor of the collision; (2) *alcoholic beverages* is listed as a contributing circumstance in the collision; (3) any vehicle driver or non-motorist (*pedestrian, pedestrian, bicyclist*) involved in the collision had a blood alcohol content (BAC) test result greater than zero; (4) the collision report lists the apparent physical condition of any vehicle driver or non-motorist involved as *had been drinking*; or (5) a vehicle driver is issued an Operating While Intoxicated citation.

In 2008, there were 9,411 alcohol-related collisions (a 5.3 percent decrease from 2007), which resulted in 246 fatalities and another 4,489 personal injuries. Of the 554 drivers killed in motor vehicle crashes in 2008, nearly 25 percent (135 drivers) had positive BAC results, and nearly 22 percent (119 drivers) were legally intoxicated with BAC results of .08 grams per deciliter (g/dL) or greater. There were 103 drivers killed who were reported to have positive drug tests in 2008 (18.6 percent of driver fatalities).

### Highlights

Individuals killed or injured in alcohol-related collisions were primarily in the vehicle with the driver who had been drinking.

The numbers of total fatalities and total injuries classified as alcohol-related have declined annually on average from 2004 to 2008.

Males 21 to 24 years of age were most likely of all demographic groups to be injured in alcohol-related collisions, with a rate of 277 injuries per 100,000 population. In comparison to females, male drivers exhibited higher rates of alcohol-related crash involvement and injuries for all age groups 16 years and above in 2008.

Based on the age distribution of Indiana operator licenses in 2008, age groups from 16 to 44 years were over-represented in alcohol-related collisions.

More than 70 percent of all drivers killed in 2008 were given alcohol, drug, or both alcohol and drug tests (390 of 554).

In 2008 among driver fatalities that were tested for alcohol, males ages 23 and 24 had high proportions of reported BAC above 0.08 g/dL (66.7 percent). For female drivers, the highest proportions of legally intoxicated fatalities were in the ages of 20 (50 percent), 23 (100 percent), and 24 (50 percent).

Of the 118 motorcycle operators killed in 2008 collisions, 27 percent had positive BAC results, and 22.8 percent were legally intoxicated. Nearly 13 percent of motorcycle operators killed had positive drug test results.

The largest numbers of alcohol-related fatalities and injuries occurred on local/city roads and county roads in 2008. Alcohol-related collisions occurred primarily during darkness.

Peak numbers of alcohol-related fatalities occurred between the hours of midnight and 4a during weekends (i.e., late Friday and Saturday nights, into the early morning hours) in 2008.

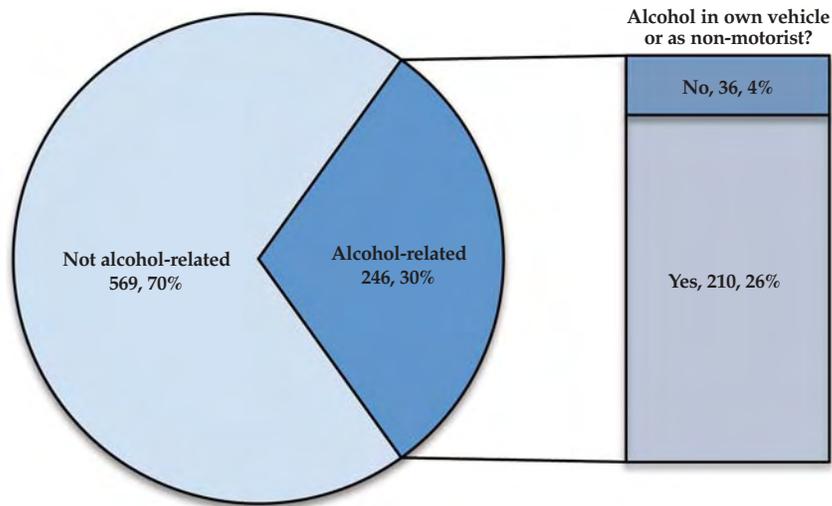
The top five primary factors reported for alcohol-related collisions in 2008 were *alcoholic beverages, ran off road right, unsafe speed, failure to yield right of way, and other driver factors*.

During 2008, the operators and occupants of mopeds, motorcycles, and pickups were most likely to be involved in alcohol-related crashes, although pedestrians have had comparatively high rates of alcohol-related involvement as well.

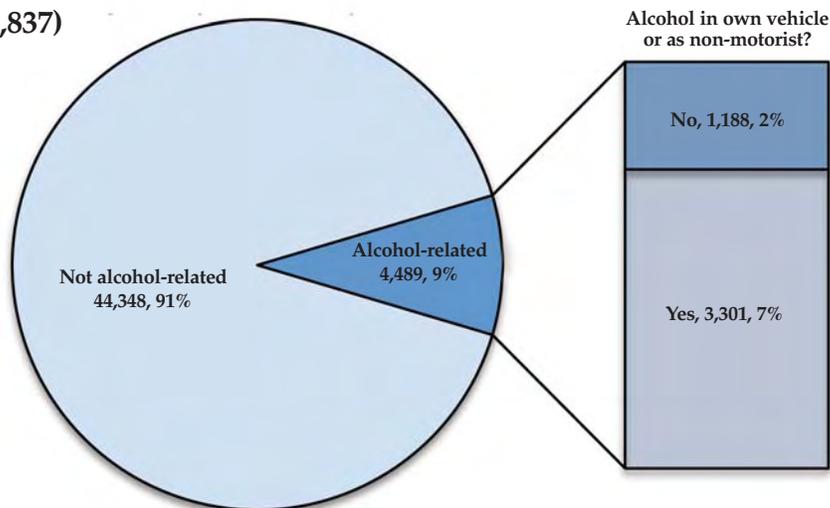
- The preponderance of alcohol-related fatalities and personal injuries occurred within alcohol-related units.
- Eighty-five percent of all fatalities in alcohol-related collisions were to occupants of vehicles involving alcohol or to alcohol-related non-motorists (210 of 246).
- Among individuals injured in alcohol-related collisions, the likelihood of a fatality was two times higher when that individual was an occupant of an alcohol-related vehicle or was an alcohol-related non-motorist.
- Seventy-three percent of all non-fatal injuries in alcohol-related collisions were to occupants of vehicles involving alcohol or to alcohol-related non-motorists (3,301 of 4,489).

Figure 22. Fatalities and personal injuries, by alcohol involvement in collision and unit, 2008

**Persons killed (n = 815)**



**Persons injured (n = 48,837)**



**Notes:**  
 See glossary for definition of *alcohol-related*.  
 Injuries include *incapacitating, non-incapacitating, and possible*.

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- On average from 2004 to 2008, about 30 percent of fatalities have been classified as alcohol-related.
- Alcohol-related injuries averaged about 10 percent annually during the same period.
- Alcohol-related fatalities declined by eight from 2007 to 2008, and by an average of 3.4 percent from 2004 to 2008.
- Alcohol-related injuries have declined annually on average 3.6 percent from 2004 to 2008.

**Table 73. Individuals killed and injured in alcohol-related collisions, 2004-2008**

Year	Alcohol-related fatalities	Total fatalities	Percent alcohol-related fatalities	Alcohol-related injuries	Total injuries	Percent alcohol-related injuries
2004	284	947	30.0%	6,593	61,652	10.7%
2005	293	938	31.2%	6,627	59,250	11.2%
2006	274	899	30.5%	5,878	55,196	10.6%
2007	254	898	28.3%	4,987	52,465	9.5%
2008	246	815	30.2%	4,489	48,837	9.2%
Average	270	899	30.0%	5,715	55,480	10.2%
Change, 2007-08	-8	-83	1.9	-498	-3,628	-0.3
Average annual % change	-3.4%	-3.6%	0.3%	-9.0%	-5.7%	-3.6%

**Notes:**

See glossary for definition of *alcohol-related* collisions.  
Injuries include *incapacitating, non-incapacitating, and possible*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- Males across all age categories (except less than 16) exhibited substantially higher rates of involvement in alcohol-related collisions than females in 2008.
- For both males and females, the age group at highest risk of alcohol-involved fatalities or injuries was 21 to 24 years.
- After the 21 to 24 year old peak in injuries per 100,000, the rate of involvement drops with age.
- Although the 16 to 24 year old age categories account for 12.4 percent of total population, the same categories account for nearly 30 percent of total alcohol-related injuries and fatalities.

**Table 74. Alcohol-related injury and fatality rates per 100,000 population for individuals in Indiana motor vehicle collisions, by age and gender, 2008**

Age group	Males			Females			Total		
	Fatalities and injuries	Est. 2008 population	Injuries per 100,000 population	Fatalities and injuries	Est. 2008 population	Injuries per 100,000 population	Fatalities and injuries	Est. 2008 population	Injuries per 100,000 population
< 16	103	717,236	14.4	120	684,661	17.5	223	1,401,897	15.9
16-20	434	231,665	187.3	244	219,351	111.2	678	451,016	150.3
21-24	477	172,396	276.7	232	165,235	140.4	709	337,631	210.0
25-34	822	433,266	189.7	351	420,431	83.5	1,173	853,697	137.4
35-44	607	438,767	138.3	271	432,064	62.7	878	870,831	100.8
45-54	480	466,180	103.0	193	472,313	40.9	673	938,493	71.7
55-64	190	344,186	55.2	88	365,202	24.1	278	709,388	39.2
65-74	60	194,953	30.8	19	228,470	8.3	79	423,423	18.7
75 and older	24	143,861	16.7	17	246,555	6.9	41	390,416	10.5
<b>TOTAL</b>	<b>3,197</b>	<b>3,142,510</b>	<b>101.7</b>	<b>1,535</b>	<b>3,234,282</b>	<b>47.5</b>	<b>4,732</b>	<b>6,376,792</b>	<b>74.2</b>

**Note:**

Injuries include *incapacitating, non-incapacitating, and possible*.

**Sources:**

Population: US Census Bureau, Population Division, *Annual Estimates of the Resident Population by Single-Year of Age and Sex for the United States and States: April 1, 2000 to July 1, 2008*, accessed August 14, 2008 at <http://www.census.gov/popest/states/asrh/>  
Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- Drivers in the four age groups from 16 to 44 years had the highest rates of injury/fatality per 10,000 licenses.
- Based on their proportions among Indiana operator licenses, the same age groups (16 to 44) are over-represented in alcohol-related injuries.
- Rates of alcohol-related injuries and fatalities declined with age after the 21 to 24 year old category.

**Table 75. Driver injury and fatality rates in Indiana motor vehicle collisions per 10,000 operator licenses, by age and alcohol involvement, 2008**

Age group	Operator licenses, 2008		Alcohol collisions			Non-alcohol collisions	
	Number	Percent total	Drivers injured and killed	Percent total	Rate per 10K licenses	Drivers injured and killed	Rate per 10K licenses
< 16	—	0.0%	16	0.5%	n/a	189	n/a
16-20	291,605	5.9%	414	12.3%	14.2	5,250	180.0
21-24	392,919	7.9%	506	15.0%	12.9	3,040	77.4
25-34	870,522	17.6%	880	26.1%	10.1	5,886	67.6
35-44	899,250	18.2%	704	20.9%	7.8	5,335	59.3
45-54	978,674	19.8%	539	16.0%	5.5	5,077	51.9
55-64	756,464	15.3%	223	6.6%	2.9	3,486	46.1
65-74	434,420	8.8%	63	1.9%	1.5	1,578	36.3
75 and over	316,731	6.4%	27	0.8%	0.9	1,222	38.6
Unknown age						16	
<b>TOTAL</b>	<b>4,942,495</b>	<b>100%</b>	<b>3,372</b>	<b>100%</b>	<b>6.8</b>	<b>31,079</b>	<b>62.9</b>

**Notes:**

Injuries include *incapacitating*, *non-incapacitating*, and *possible*.

Operator license data for drivers less than 16 years old are excluded due to data discrepancies in this age group.

**Sources:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

Indiana Bureau of Motor Vehicles, as of February 16, 2009. BMV data for 2007-2008 was received in different format than previous years, and reflect different license totals from the 2007 fact book.

- Considering all age groups, males were reported with BACs of 0.15 g/dL or greater at nearly twice the rate of females in 2008.
- Most age groups under 25 years had higher proportions of driver fatalities with reported BACs of 0.08 g/dL or more than did older groups.

**Table 76. Drivers killed and alcohol- or drug-tested, by gender and BAC (g/dL), 2008**

Drivers	Driver fatalities tested			BAC (g/dL) test results										As percent of driver fatalities tested:			
				Zero		0.01 < 0.08		0.08 < 0.15		0.15 +		Missing or not reported		0.08 +		0.15+	
	Female	Male	Total	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
< 16	1	2	3	1	1	0	0	0	0	0	1	0	0	0%	50.0%	0%	50.0%
16	3	7	10	3	4	0	2	0	1	0	0	0	0	0%	14.3%	0%	0%
17	2	4	6	2	3	0	0	0	0	0	0	0	1	0%	0%	0%	0%
18	4	12	16	2	8	0	0	0	2	1	2	1	0	25.0%	33.3%	25.0%	16.7%
19	2	13	15	2	6	0	1	0	2	0	1	0	3	0%	23.1%	0%	7.7%
20	2	7	9	1	4	0	0	1	0	0	2	0	1	50.0%	28.6%	0%	28.6%
21	3	11	14	2	5	0	2	1	1	0	1	0	2	33.3%	18.2%	0%	9.1%
22	1	8	9	1	3	0	0	0	0	0	3	0	2	0%	37.5%	0%	37.5%
23	2	6	8	0	2	0	0	0	3	2	1	0	0	100%	66.7%	100%	16.7%
24	4	6	10	2	2	0	0	0	0	2	4	0	0	50.0%	66.7%	50.0%	66.7%
25-34	18	66	84	11	24	0	2	2	10	3	25	2	5	27.8%	53.0%	16.7%	37.9%
35-44	15	44	59	12	26	0	2	0	6	3	8	0	2	20.0%	31.8%	20.0%	18.2%
45-54	16	63	79	13	38	1	3	1	4	0	15	1	3	6.7%	30.2%	0%	23.8%
55-64	6	30	36	5	20	0	1	1	2	0	6	0	1	16.7%	26.7%	0%	20.0%
65-74	7	11	18	6	7	0	1	0	0	0	1	1	2	0%	9.1%	0%	9.1%
75 and older	2	12	14	2	10	0	1	0	0	0	1	0	0	0%	8.3%	0%	8.3%
<b>TOTAL</b>	<b>88</b>	<b>302</b>	<b>390</b>	<b>65</b>	<b>163</b>	<b>1</b>	<b>15</b>	<b>6</b>	<b>31</b>	<b>11</b>	<b>71</b>	<b>5</b>	<b>22</b>	<b>19.5%</b>	<b>33.8%</b>	<b>12.6%</b>	<b>23.5%</b>

**Note:**  
g/dL = grams per deciliter

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- Motorcycle and moped operators have generally had the highest rates of alcohol-involvement in Indiana crashes during the 2004-2008 period (see Table 82).
- About 40 percent of motorcycle operator fatalities tested had positive BAC tests. Nearly 34 percent were legally intoxicated.
- In 2008, nearly 19 percent of motorcycle operator fatalities tested had positive drug tests.

**Table 77. Motorcycle operator fatalities tested for alcohol and drugs, by test results, 2004-2008**

Motorcycle operators	2004	2005	2006	2007	2008	Change, 2007-08
Operator fatalities	95	110	97	113	118	5
<b>Alcohol test results</b>						
Operator fatalities tested	71	80	57	80	80	0
BAC zero	43	40	21	34	44	10
BAC 0.01 to < 0.08	5	7	5	5	5	0
BAC 0.08 to < 0.15	4	9	7	10	12	2
BAC 0.15 and greater	9	17	16	19	15	-4
Missing/not reported	10	7	8	12	4	-8
% operator fatalities who were tested	74.7%	72.7%	58.8%	70.8%	67.8%	-3.0
% operator fatalities tested = 0.01+	25.4%	41.3%	49.1%	42.5%	40.0%	-2.5
% operator fatalities tested = 0.08+	18.3%	32.5%	40.4%	36.3%	33.8%	-2.5
% operator fatalities tested = 0.15+	12.7%	21.3%	28.1%	23.8%	18.8%	-5.0
<b>Drug test results</b>						
Positive	1	10	14	18	15	-16.7%
Percent of operator fatalities tested	1.4%	12.5%	24.6%	22.5%	18.8%	-16.7%

**Note:**

Data include *motorcycle* and *moped* operators killed.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- About 70 percent of driver fatalities had alcohol, alcohol/drug, or drug tests in 2008.
- The rate of testing declines as driver ages increase, from nearly 75 percent of 25 to 34 year old drivers to about 58 percent for drivers aged 65-74.
- Alcohol/drug test results were reported for 93.6 percent of drivers tested.
- Of the 325 driver drug test results reported in ARIES, nearly 32 percent (103) tested positive for drugs in 2008.

**Table 78. Drivers killed in traffic collisions, by substance test results, 2008**

Drivers	Drivers killed	Driver tests given (all test types)		BAC results reported		Drug test results reported				
		Total	% drivers killed	Total	% driver tests given	Total	% drivers killed	Total positive	% positive (drivers killed)	% positive (reported results)
< 16	5	3	60.0%	3	100.0%	3	60.0%	0	0.0%	0.0%
16-20	74	56	75.7%	50	89.3%	49	66.2%	16	21.6%	32.7%
21-24	56	41	73.2%	38	92.7%	29	51.8%	9	16.1%	31.0%
25-34	114	84	73.7%	77	91.7%	70	61.4%	31	27.2%	44.3%
35-44	75	59	78.7%	57	96.6%	49	65.3%	19	25.3%	38.8%
45-54	102	78	76.5%	75	96.2%	68	66.7%	21	20.6%	30.9%
55-64	62	37	59.7%	36	97.3%	32	51.6%	5	8.1%	15.6%
65-74	31	18	58.1%	15	83.3%	14	45.2%	0	0.0%	0.0%
75 and older	35	14	40.0%	14	100.0%	11	31.4%	2	5.7%	18.2%
<b>TOTAL</b>	<b>554</b>	<b>390</b>	<b>70.4%</b>	<b>365</b>	<b>93.6%</b>	<b>325</b>	<b>58.7%</b>	<b>103</b>	<b>18.6%</b>	<b>31.7%</b>

**Notes:**

*Driver tests given* includes alcohol, alcohol and drug, and drug test categories from ARIES.

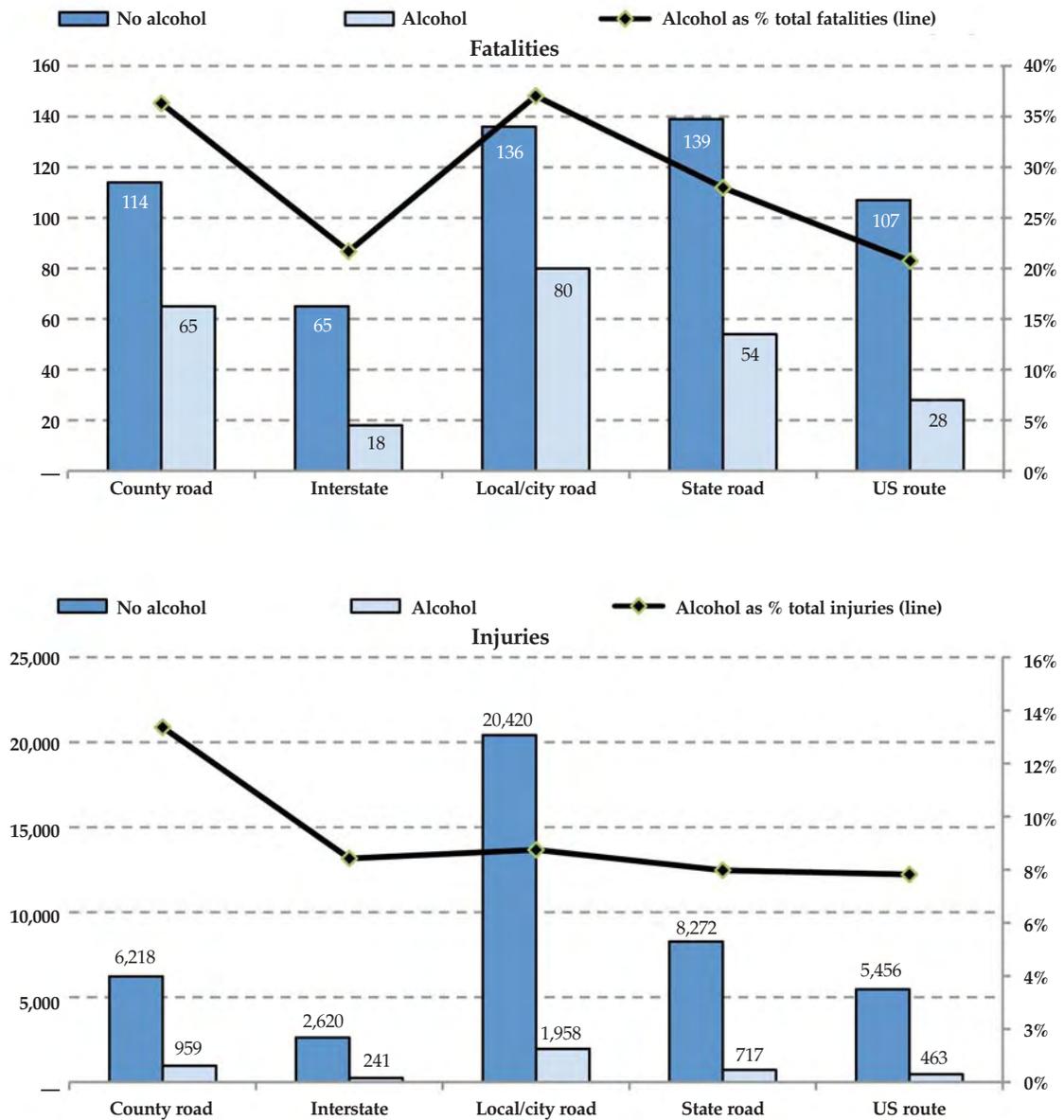
*Total drug tests reported* excludes eight drug test results reported as *pending*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- *Local/city roads* represented the highest volume of non-fatal personal *injuries* in alcohol-related collisions in 2008.
- *Local/city roads* reflected the highest volume of *fatal* injuries (80) in alcohol-related collisions in 2008, followed by *county roads* (65) and *state roads* (54).
- *Local/city roads* and *county roads* had the largest proportions of alcohol-involved *injuries* and *fatalities*.

Figure 23. Fatalities and injuries by roadway class and alcohol involvement, 2008



**Notes:**  
 Personal injuries include *incapacitating*, *non-incapacitating*, and *possible* injuries.  
 Excludes *unknown* road class (*fatal* = 9 and *injuries* = 1,513).

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- There were 246 persons killed, and another 4,489 injured in collisions classified as alcohol-related.
- Various kinds of reckless driving (*ran off road right, unsafe speed, and failure to yield right of way*) accounted for more than one-fourth of alcohol-related collisions.
- The largest proportion of alcohol-related fatalities occurred when vehicles *ran off road right* (28.5 percent).

**Table 79. Alcohol-related collisions, fatalities, and injuries, by primary factor to collision occurrence, 2008**

Primary factor	Collisions		Fatalities		Injuries	
	Total	% total	Total	% total	Total	% total
Alcoholic beverages	3,508	37.3%	21	8.5%	1,436	32.0%
Ran off road right	1,506	16.0%	70	28.5%	714	15.9%
Unsafe speed	577	6.1%	49	19.9%	338	7.5%
Other (explained in narrative) - driver	485	5.2%	15	6.1%	184	4.1%
Failure to yield right of way	447	4.7%	21	8.5%	325	7.2%
Following too closely	417	4.4%	0	0.0%	203	4.5%
Left of center	342	3.6%	14	5.7%	281	6.3%
Improper lane usage	262	2.8%	6	2.4%	91	2.0%
Disregard signal/reg sign	259	2.8%	9	3.7%	241	5.4%
Unsafe backing	255	2.7%	1	0.4%	23	0.5%
Speed too fast for weather conditions	203	2.2%	8	3.3%	73	1.6%
Overcorrecting/oversteering	187	2.0%	10	4.1%	86	1.9%
Improper turning	120	1.3%	2	0.8%	33	0.7%
Illegal drugs	95	1.0%	0	0.0%	64	1.4%
Pedestrian action	88	0.9%	8	3.3%	76	1.7%
Driver distracted (explained in narrative)	86	0.9%	1	0.4%	51	1.1%
Animal on roadway	84	0.9%	2	0.8%	45	1.0%
Driver asleep or fatigued	75	0.8%	0	0.0%	23	0.5%
Prescription drugs	75	0.8%	0	0.0%	16	0.4%
Roadway surface condition	61	0.6%	0	0.0%	28	0.6%
Improper passing	48	0.5%	4	1.6%	26	0.6%
Cell phone usage	40	0.4%	0	0.0%	14	0.3%
Wrong way on one way	33	0.4%	4	1.6%	33	0.7%
Unknown	20	0.2%	0	0.0%	6	0.1%
Ran off road left	18	0.2%	0	0.0%	9	0.2%
Subtotal, top 25	9,291	98.7%	245	99.6%	4,419	98.4%
Remaining 21 primary factors	120	1.3%	1	0.4%	70	1.6%
<b>Total, all alcohol-related collisions</b>	<b>9,411</b>	<b>100%</b>	<b>246</b>	<b>100%</b>	<b>4,489</b>	<b>100%</b>

**Notes:**

See glossary for definition of *alcohol-related* collisions.

*Unknown* includes collisions where no vehicle records were included on the collision report.

Includes all alcohol-related collisions (fatal, injury, property damage).

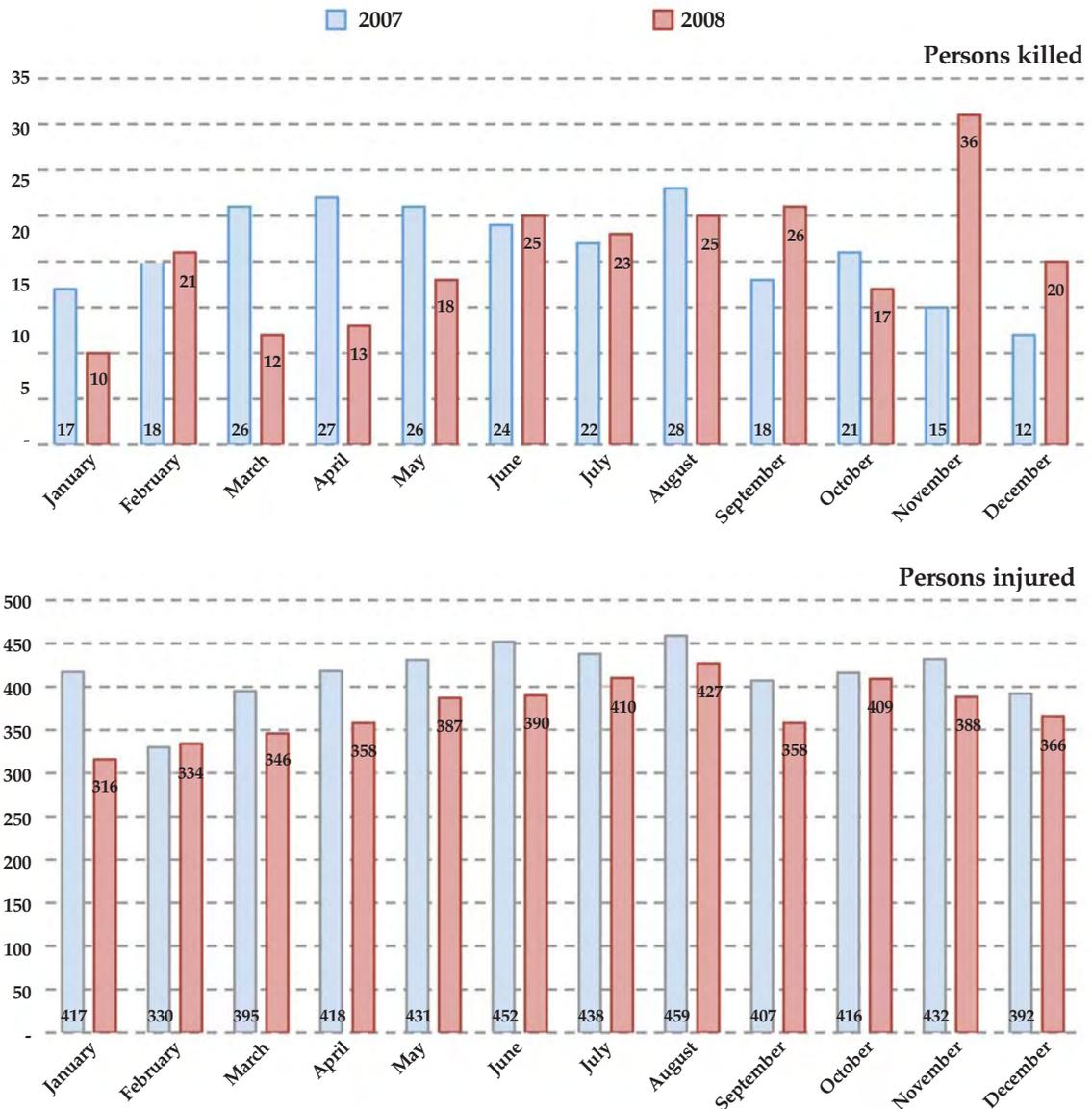
Injuries include *incapacitating, non-incapacitating, and possible*.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- In 2008, an average of 21 persons were killed monthly in alcohol-related collisions, with a low of 10 in January and a high of 36 in November.
- Persons injured in alcohol-related collisions peaked in August 2008 at 427. On average, 374 persons per month were injured.

Figure 24. Persons killed and injured in alcohol-related collisions, by month, 2007 and 2008



**Note:**  
Injuries include *incapacitating, non-incapacitating, and possible*.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- Overall, alcohol-related collisions occur most often in evenings and at night.
- Generally, the daily volume of alcohol-related collisions increased from Monday to Saturday.
- Alcohol-related collisions occurred disproportionately in 2008 from midnight to 4a on Saturdays and Sundays.

**Table 80. Alcohol-related collisions and individual injuries, by time of day and day of week, 2008**

Collision time	Alcohol-related collisions								Alcohol-related injuries by hour	
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total	Fatal	Non-fatal
12a-	50	63	75	72	72	180	211	723	27	306
1a-	51	49	67	75	105	182	213	742	14	353
2a-	16	66	50	63	95	221	192	703	23	278
3a-	21	56	61	78	106	257	223	802	20	313
4a-	6	40	22	30	54	107	120	379	9	141
5a-	10	24	11	24	39	78	85	271	8	124
6a-	7	8	18	9	21	40	36	139	7	63
7a-	6	10	12	16	12	34	29	119	3	52
8a-	7	12	9	14	14	19	19	94	1	40
9a-	4	15	7	13	6	20	18	83	2	54
10a-	11	7	8	13	14	13	15	81	1	31
11a-	10	17	13	10	20	33	19	122	1	55
12p-	10	14	9	13	21	29	21	117	5	73
1p-	15	20	15	24	20	29	22	145	2	70
2p-	15	17	24	31	30	42	24	183	5	113
3p-	49	43	24	36	49	49	29	279	8	145
4p-	41	41	32	41	53	71	54	333	15	178
5p-	50	56	51	76	55	90	71	449	9	245
6p-	46	51	55	63	97	89	81	482	15	248
7p-	53	59	72	64	98	105	73	524	9	256
8p-	72	56	79	71	92	97	86	553	14	293
9p-	93	69	89	91	127	127	81	677	20	353
10p-	82	68	69	93	147	167	65	691	18	353
11p-	68	71	70	94	156	183	75	717	10	352
<b>Daily totals</b>	<b>793</b>	<b>932</b>	<b>942</b>	<b>1,114</b>	<b>1,503</b>	<b>2,262</b>	<b>1,862</b>	<b>9,408</b>	<b>246</b>	<b>4,489</b>

**Note:**  
Injuries include *incapacitating, non-incapacitating, and possible*.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- Alcohol involvement occurs more frequently in single-vehicle collisions; in 2008, a single-vehicle collision was 2.3 times more likely to have been alcohol-related than multiple-vehicle collisions.
- Considering all collisions, proportions that are alcohol-related have declined since 2006.

**Table 81. Alcohol-related single- and multiple-vehicle collisions, 2004-2008**

Collisions	2004	2005	2006	2007	2008
<b>Single-vehicle</b>	<b>64,128</b>	<b>66,500</b>	<b>61,825</b>	<b>65,652</b>	<b>68,109</b>
Alcohol-related	5,586	5,624	5,716	5,256	5,049
Percent alcohol-related	8.7%	8.5%	9.2%	8.0%	7.4%
<b>Multiple-vehicle</b>	<b>144,216</b>	<b>141,462</b>	<b>130,619</b>	<b>139,235</b>	<b>137,336</b>
Alcohol-related	7,850	8,059	6,139	4,687	4,362
Percent alcohol-related	5.4%	5.7%	4.7%	3.4%	3.2%
Unknown	338	397	277	112	6
<b>Total</b>	<b>208,682</b>	<b>208,359</b>	<b>192,721</b>	<b>204,999</b>	<b>205,451</b>
Alcohol-related	13,436	13,683	11,855	9,943	9,411
Percent alcohol-related	6.4%	6.6%	6.2%	4.9%	4.6%
Alcohol incidence factor	1.6	1.5	2.0	2.4	2.3

**Notes:**

*Unknown* includes collisions where no vehicle records were included on the collision report.

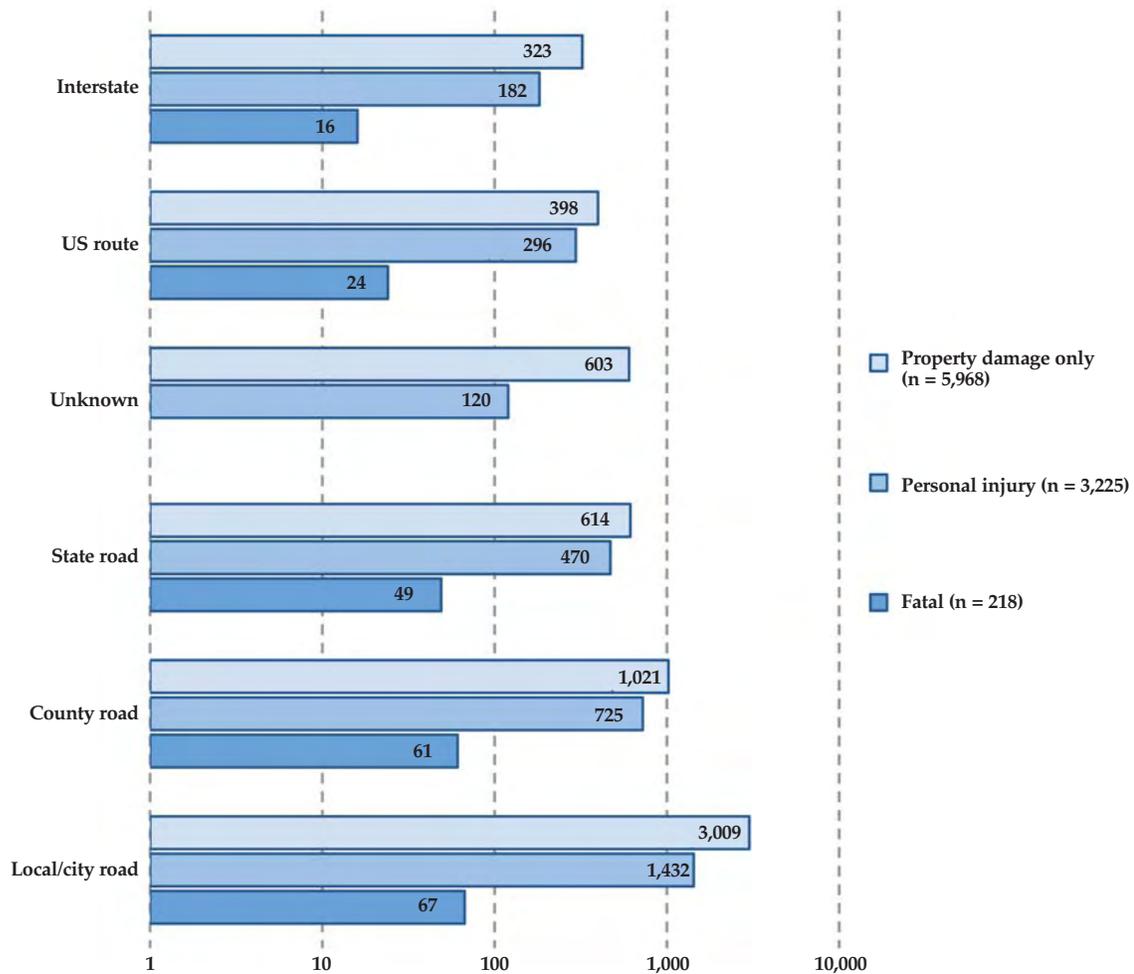
*Alcohol incidence factor* defined as ratio of *single-vehicle, % alcohol-related* to *multiple-vehicle, % alcohol-related*. Values greater than one indicate that alcohol was more likely to have been involved in single-vehicle collisions.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- Alcohol-related fatal collisions as a proportion of all alcohol-related collisions per road class was highest on *state roads* (4.3 percent), followed by *county roads* (3.4 percent) (calculated from figure).
- The largest number of alcohol-related collisions occurred on *local/city roads*.
- Considering alcohol-related collisions on *state roads*, nearly 46 percent resulted in personal injury or fatality (calculated from figure).
- About one-third of alcohol-related collisions on *local/city streets* produced personal injuries or fatalities (calculated from figure).

Figure 25. Alcohol-related fatal and personal injury collisions, by roadway class, 2008



**Note:**

X-axis is measured on a log 10 scale. Because each gridmark is ten times the previous, lengths of bars are therefore not proportional to actual counts.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- Overall, less than 3 percent of vehicles/units were classified as alcohol-related in 2008, although there was much variation among vehicle/unit types.
- Motorcycles and mopeds have high average alcohol involvement.
- The next highest risks of alcohol involvement were pedestrians (6.3 percent) and pickup trucks (4.4 percent).
- Large trucks, buses, and other vehicles had the lowest levels of alcohol involvement.

**Table 82. Percent of vehicle or unit type classified as alcohol-related unit in collisions, 2004-2008**

Unit type	2004	2005	2006	2007	2008	Average, 2004-08
Moped	14.5%	15.3%	14.8%	13.9%	15.3%	14.8%
Motorcycle	10.6%	9.0%	9.0%	9.3%	8.2%	9.2%
Pedestrian	5.5%	4.4%	7.8%	6.7%	6.9%	6.3%
Pickup truck	4.8%	4.9%	4.8%	3.9%	3.7%	4.4%
Passenger car	4.3%	4.5%	3.8%	2.8%	2.6%	3.6%
Sport utility vehicle	4.0%	3.9%	3.8%	2.7%	2.6%	3.4%
Bicycle	2.0%	2.4%	3.7%	3.4%	3.0%	2.9%
Van	3.2%	3.4%	2.6%	1.8%	2.0%	2.6%
Unknown	2.6%	2.6%	1.9%	0.9%	0.2%	1.6%
Other vehicle	2.0%	2.2%	1.0%	1.1%	0.6%	1.4%
Bus	1.9%	2.2%	1.4%	0.2%	0.1%	1.2%
Large truck	1.2%	1.1%	0.8%	0.3%	0.2%	0.7%
<b>Total units</b>	<b>367,077</b>	<b>363,538</b>	<b>336,585</b>	<b>359,389</b>	<b>357,633</b>	
Alcohol-related units	15,025	15,408	12,665	10,056	9,494	
% alcohol-related units	4.1%	4.2%	3.8%	2.8%	2.7%	

**Notes:**

*Unknown* includes collisions where no vehicle records were included on the collision report.

*Large truck* includes tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi).

See glossary for definition of *alcohol-related* units.

*Other vehicle type* includes combination vehicle, farm vehicle, and motorhome/recreational vehicle.

*Bus* includes bus/seats 15+ persons with driver, bus/seats 9-15 persons with driver, and school bus.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

# SPEED



## SPEED, 2008

Based on the Indiana ARIES database, a collision is defined 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 a contributing factor of the collision; or (2) a vehicle driver is issued a speeding citation.

There were 22,819 speed-related collisions in Indiana in 2008, representing 11 percent of all collisions and a 23 percent increase over 2007 speed-related collisions. These collisions involved 23,003 speeding motor vehicles (6.5 percent of all motor vehicles in collisions) and 34,397 drivers, injured occupants, pedestrians, and pedalcyclists (10.6 percent of all individuals in collisions).

### Highlights

Speed-related collisions were nearly three times as likely to be fatal in 2008 compared to collisions that were not speed-related.

Approximately one in four fatal collisions (188/722), one in six (484/2,898) incapacitating collisions, and one in eight (4,227/32,460) non-incapacitating collisions were speed-related.

The risk of fatality is 4.5 times greater for occupants of vehicles in collisions where the driver is speeding compared to vehicles where the driver is not speeding.

In 2008, motorcycles were the most likely vehicle type in collisions to be speeding (9.4 percent), followed by sport utility

vehicles (7.9 percent), pickup trucks (7.7 percent), passenger cars (7.1 percent), large trucks (5.9 percent), and vans (5.2 percent).

Young males continue to be the most likely group of drivers to speed, and nearly one-and-a-half times more likely than females to speed. In 2008, 12.9 percent of males 16-20 years old involved in collisions were speeding, compared to 9.2 percent of females 16-20 years old.

On average in 2008, 12 percent of collisions at any given hour and day were speed-related. Speed-related collisions were especially prevalent on Tuesdays.

The number of speed-related collisions in rural (11,388) and urban (11,463) locales was roughly the same in 2008, but speed-related collisions were almost twice as likely in rural areas (16 percent of all collisions compared to nine percent). However, hourly speed-related collision rates as a function of all collisions for a given hour were higher on average in rural areas compared to urban areas (15.1 percent versus 10.4 percent).

As a percentage of all collisions occurring on a given road class, interstates had the greatest proportion of speed-related collisions (26 percent), followed by county roads (17 percent), US routes (11 percent), state roads (10 percent), and local/city roads (9 percent).

- The number of speed-related collisions increased 23 percent from 2007 to 2008 and 7.4 percent on average each year from 2004 to 2008.
- Speed-related collisions represented 11.1 percent of collisions in 2008 compared to nine percent in 2007.
- One of every four fatal collisions in 2008 was speed-related compared to one of every five in 2007.
- In 2008, speed-related collisions were 2.8 times more likely to be fatal than non-speed-related collisions.

**Table 83. Indiana collisions, by speed involvement and collision severity, 2004-2008**

Speed involvement/ collision severity	2004	2005	2006	2007	2008	% 2008 total	% change '07 - '08	Average annual change
<b>All collisions</b>	<b>208,682</b>	<b>208,359</b>	<b>192,721</b>	<b>204,999</b>	<b>205,451</b>	<b>100.0%</b>	<b>0.2%</b>	<b>-0.3%</b>
<b>Speed-related</b>	<b>18,812</b>	<b>20,010</b>	<b>14,570</b>	<b>18,491</b>	<b>22,819</b>	<b>100.0%</b>	<b>23.4%</b>	<b>7.4%</b>
Fatal	177	203	159	165	188	0.8%	13.9%	2.7%
Incapacitating	464	486	473	459	484	2.1%	5.4%	1.1%
Non-incapacitating	4,748	4,621	3,844	3,917	4,227	18.5%	7.9%	-2.4%
Property damage only	13,423	14,700	10,094	13,950	17,920	78.5%	28.5%	11.2%
<b>Non-speed-related</b>	<b>189,870</b>	<b>188,349</b>	<b>178,151</b>	<b>186,508</b>	<b>182,632</b>	<b>100.0%</b>	<b>-2.1%</b>	<b>-0.9%</b>
Fatal	680	652	658	639	534	0.3%	-16.4%	-5.6%
Incapacitating	2,831	2,655	2,717	2,616	2,414	1.3%	-7.7%	-3.8%
Non-incapacitating	35,260	33,999	31,815	30,424	28,233	15.5%	-7.2%	-5.4%
Property damage only	151,099	151,043	142,961	152,829	151,451	82.9%	-0.9%	0.2%
<b>% speed-related</b>	<b>9.0%</b>	<b>9.6%</b>	<b>7.6%</b>	<b>9.0%</b>	<b>11.1%</b>	-	-	-
Fatal	20.7%	23.7%	19.5%	20.5%	26.0%	-	-	-
Incapacitating	14.1%	15.5%	14.8%	14.9%	16.7%	-	-	-
Non-incapacitating	11.9%	12.0%	10.8%	11.4%	13.0%	-	-	-
Property damage only	8.2%	8.9%	6.6%	8.4%	10.6%	-	-	-
<b>Relative risk</b>								
Fatal	2.6	2.9	3.0	2.6	2.8	-	-	-
Incapacitating	1.7	1.7	2.1	1.8	1.6	-	-	-
Non-incapacitating	1.4	1.3	1.5	1.3	1.2	-	-	-

**Notes:**

*Relative risk* defined as ratio of *speed-related* rate (fatal, as % total speed-related) to *non-speed-related* rate (fatal, as % of total non-speed-related).

*Non-incapacitating* includes *non-incapacitating* and *possible* collision severities.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- The number of individuals involved in speed-related collisions increased 21 percent from 2007 to 2008 and five percent on average each year from 2004 to 2008.
- Approximately 22 percent of individuals involved in speed-related collisions in 2008 was injured.
- In 2008, individuals involved in speed-related collisions were 3.2 times more likely than individuals in non-speed-related collisions to suffer a fatal injury.

**Table 84. Individuals involved in Indiana collisions, by speed involvement and injury status, 2004-2008**

	2004	2005	2006	2007	2008	% 2008 total	% change '07 - '08	Average annual change
<b>All individuals</b>	<b>350,527</b>	<b>344,609</b>	<b>315,894</b>	<b>330,129</b>	<b>325,774</b>	<b>100.0%</b>	<b>-1.3%</b>	<b>-1.7%</b>
<b>Speed-related collisions</b>	<b>30,501</b>	<b>31,605</b>	<b>23,444</b>	<b>28,414</b>	<b>34,397</b>	<b>100.0%</b>	<b>21.1%</b>	<b>5.0%</b>
Fatal	207	229	174	187	225	0.7%	20.3%	3.6%
Incapacitating	563	617	607	559	585	1.7%	4.7%	1.2%
Non-incapacitating	7,108	6,871	5,733	5,839	6,174	17.9%	5.7%	-3.1%
Other injury	2,589	2,900	1,548	693	532	1.5%	-23.2%	-28.3%
Not injured	20,034	20,988	15,382	21,136	26,881	78.1%	27.2%	10.7%
<b>Non-speed-related collisions</b>	<b>320,026</b>	<b>313,004</b>	<b>292,450</b>	<b>301,715</b>	<b>291,377</b>	<b>100.0%</b>	<b>-3.4%</b>	<b>-2.3%</b>
Fatal	740	709	725	711	590	0.2%	-17.0%	-5.2%
Incapacitating	3,398	3,206	3,200	3,102	2,797	1.0%	-9.8%	-4.7%
Non-incapacitating	50,583	48,556	45,656	42,965	39,281	13.5%	-8.6%	-6.1%
Other injury	27,019	31,656	20,155	7,749	5,386	1.8%	-30.5%	-27.8%
Not injured	238,286	228,877	222,714	247,188	243,323	83.5%	-1.6%	0.7%
<b>% speed-related</b>	<b>8.7%</b>	<b>9.2%</b>	<b>7.4%</b>	<b>8.6%</b>	<b>10.6%</b>	-	-	-
Fatal	21.9%	24.4%	19.4%	20.8%	27.6%	-	-	-
Incapacitating	14.2%	16.1%	15.9%	15.3%	17.3%	-	-	-
Non-incapacitating	12.3%	12.4%	11.2%	12.0%	13.6%	-	-	-
Other injury	8.7%	8.4%	7.1%	8.2%	9.0%	-	-	-
Not injured	7.8%	8.4%	6.5%	7.9%	9.9%	-	-	-
<b>Relative risk</b>								
Fatal	2.9	3.2	3.0	2.8	3.2	-	-	-
Incapacitating	1.7	1.9	2.4	1.9	1.8	-	-	-
Non-incapacitating	1.5	1.4	1.6	1.4	1.3	-	-	-

**Notes:**

*Relative risk* defined as ratio of *speed-related* rate (fatal, as % total speed-related) to *non-speed-related* rate (fatal, as % of total non-speed-related).

*Non-incapacitating* includes *non-incapacitating* and *possible* injuries.

*Other injury* includes injuries reported as *refused*, *unknown*, and *not reported*.

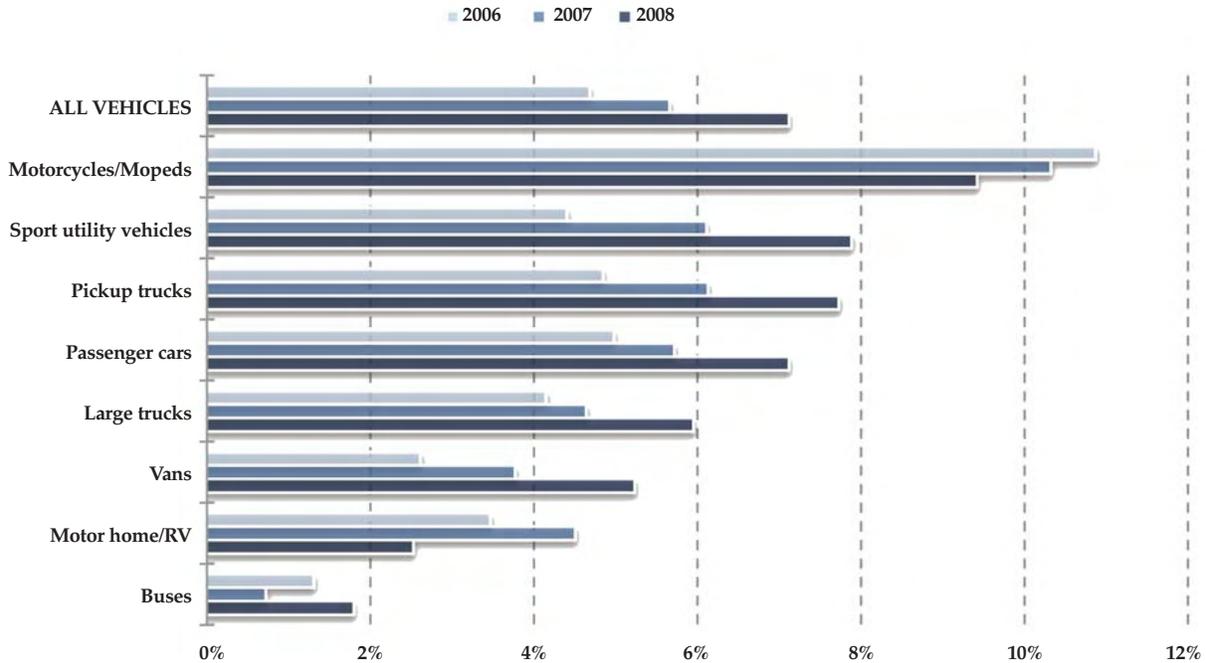
*Not injured* is primarily drivers of vehicles involved in property damage only collisions.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Approximately seven percent of vehicles involved in Indiana collisions in 2008 were speeding, compared to five and six percent in 2006 and 2007, respectively.
- Motorcycles and motor home/recreational vehicles are the only vehicle types that experienced reductions in the rate of collisions with vehicles speeding from 2007 to 2008.
- Sport utility vehicles experienced the largest increase in the rate of vehicles speeding in collisions from 2007 to 2008 (6.1 percent in 2007 to 7.9 percent in 2008).

**Figure 26. Percent of vehicles speeding in Indiana collisions, by vehicle type, 2006-2008**



**Notes:**

Percent is percent of vehicles speeding in a given vehicle type.

Excludes vehicle types of farm vehicle, combination vehicle, pedestrian, bicycle, and unknown type.

Buses includes vehicle types of bus/seats 9-15 persons with driver, bus/seats 15+ persons with driver, and school bus.

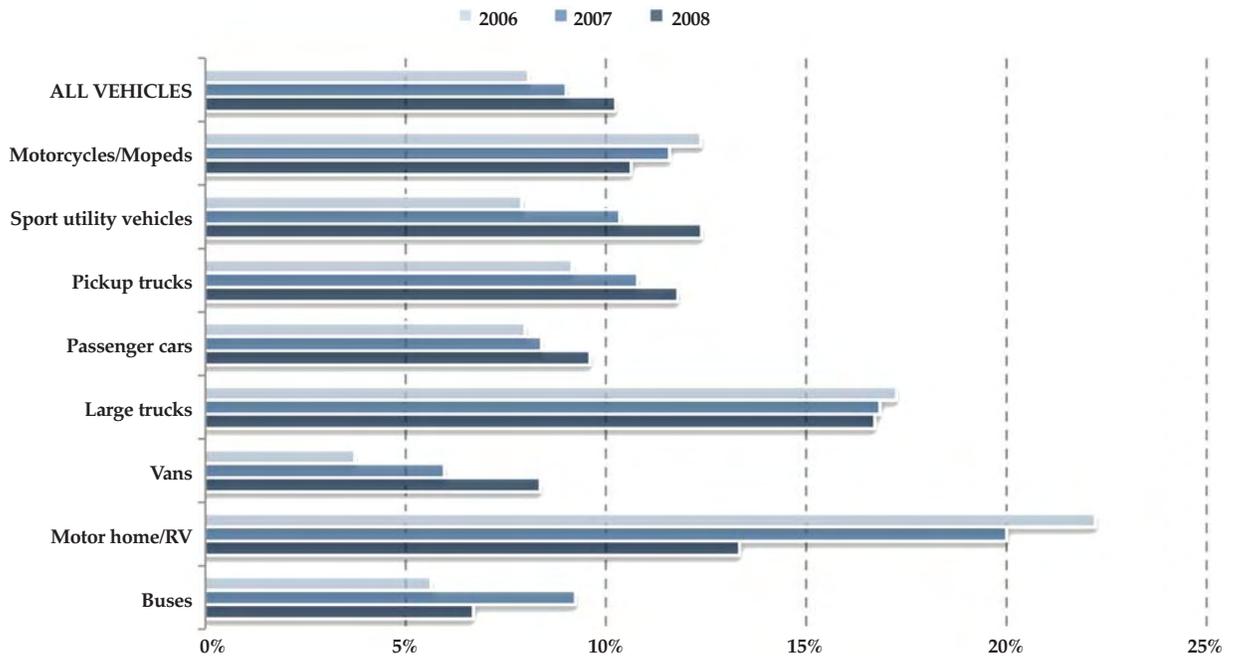
Large trucks defined as tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks with GVWR of more than 10,000 pounds.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Approximately ten percent of known injuries occurred in speeding vehicles in 2008—up from eight percent in 2006 and nine percent in 2007.
- Approximately 17 percent of injuries occurring in large trucks were in speeding large trucks, nearly double the rate of passenger cars.

Figure 27. Percent of injuries in Indiana collisions that occurred in speeding vehicles, by vehicle type, 2006-2008



**Notes:**

Percent is percent of total injuries occurring in speeding vehicles in a given vehicle type.

Excludes vehicle types of *farm vehicle, combination vehicle, pedestrian, bicycle, and unknown* type.

*Buses* includes vehicle types of *bus/seats 9-15 persons with driver, bus/seats 15+ persons with driver, and school bus.*

*Large trucks* are defined as *tractor (cab only, no trailer), tractor/double trailer, tractor/one semi-trailer, tractor/triple trailer, truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), and pickup trucks with GVWR of more than 10,000 pounds.*

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- Fatalities are most likely in speed-related collisions occurring in areas with a posted speed limit less than 45 mph.
- Generally, as the posted speed limit increases, so does the likelihood of incapacitating and non-incapacitating injuries in speed-related collisions.

**Table 85. Individuals injured in Indiana speed-related collisions, by injury status and posted speed limit, 2004-2008**

Injury status/posted speed limit (mph)	2004	2005	2006	2007	2008	Total injuries, 2008	Speed-related injuries, as % of total	Average annual change
<b>Known injuries</b>	<b>7,878</b>	<b>7,717</b>	<b>6,514</b>	<b>6,585</b>	<b>6,984</b>	<b>49,652</b>	<b>14%</b>	<b>-2.6%</b>
<b>Fatal</b>	<b>207</b>	<b>229</b>	<b>174</b>	<b>187</b>	<b>225</b>	<b>815</b>	<b>27.6%</b>	<b>3.6%</b>
< 35	38	41	34	24	36	97	37%	2.9%
35-39	16	27	16	27	31	79	39%	27.9%
40-44	16	26	18	10	29	73	40%	44.3%
45-49	23	38	28	29	30	102	29%	11.5%
50-54	12	11	8	9	9	42	21%	-5.8%
55-59	84	69	52	59	57	264	22%	-8.1%
60-64	0	4	2	4	6	20	30%	n/a
65 +	13	13	12	21	22	64	34%	18.0%
Unknown	5	0	4	4	5	74	7%	n/a
<b>Incapacitating</b>	<b>563</b>	<b>617</b>	<b>607</b>	<b>559</b>	<b>585</b>	<b>3,382</b>	<b>17%</b>	<b>1.2%</b>
< 35	123	139	137	115	102	659	15%	-3.9%
35-39	58	65	83	65	77	479	16%	9.1%
40-44	64	63	63	61	51	352	14%	-5.3%
45-49	68	73	77	72	94	442	21%	9.2%
50-54	26	33	35	22	26	152	17%	3.5%
55-59	156	177	133	154	158	807	20%	1.7%
60-64	2	8	6	15	11	56	20%	99.6%
65 +	32	34	42	38	49	132	37%	12.3%
Unknown	34	25	31	17	17	303	6%	-11.9%
<b>Non-incapacitating</b>	<b>7,108</b>	<b>6,871</b>	<b>5,733</b>	<b>5,839</b>	<b>6,174</b>	<b>45,455</b>	<b>14%</b>	<b>-3.1%</b>
< 35	1,737	1,567	1,352	1,431	1,384	12,427	11%	-5.2%
35-39	1,004	913	950	822	875	8,035	11%	-3.0%
40-44	750	712	640	599	644	5,142	13%	-3.5%
45-49	843	839	683	742	743	5,358	14%	-2.6%
50-54	339	384	264	250	285	1,805	16%	-2.3%
55-59	1,798	1,737	1,316	1,424	1,507	8,201	18%	-3.4%
60-64	29	52	58	67	109	586	19%	42.3%
65 +	318	382	307	375	532	1,496	36%	16.1%
Unknown	290	285	163	129	95	2,405	4%	-22.9%

**Notes:**

*Non-incapacitating* includes *non-incapacitating* and *possible* injuries

Data include only individuals with injury status of *fatal*, *incapacitating*, and *non-incapacitating* (*non-incapacitating* includes *possible* injuries).

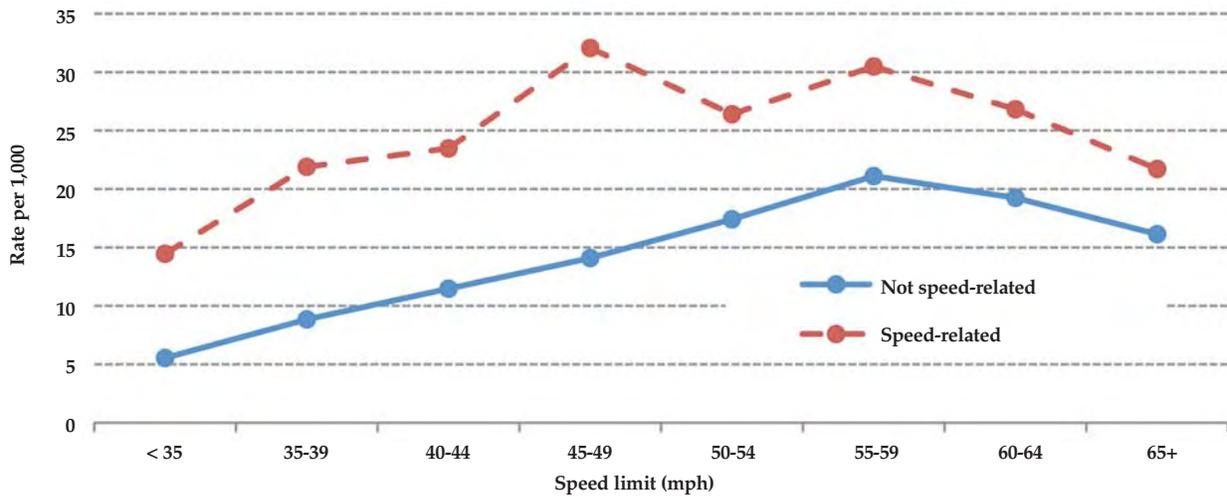
n/a indicates the average annual change cannot be calculated due to zeros in some years.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

► The risk of serious injury in speed-related collisions in areas with a posted speed limit up to 49mph is more than twice as likely as non-speed-related collisions.

Figure 28. Seriously injured individuals per 1,000 individuals, by speed limit group and collision speed status, 2008



**Note:**  
*Serious injuries defined as fatal or incapacitating injuries.*

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, 12.9 percent (3,501/27,200) of male drivers ages 16-20 involved in collisions were speeding, compared to 9.2 percent (2,143/23,265) of females.
- Since 2004, males of all ages involved in collisions have consistently been nearly one and a half times as likely as females to be speeding.
- Younger drivers involved in collisions are consistently more likely to be speeding than older drivers.
- Since 2006, the rate of male and female drivers speeding in collisions has increased each year.
- Males who are speeding have consistently been nearly two times as likely as females to suffer a serious injury since 2006.

**Table 86. Proportion of drivers who were speeding in Indiana collisions, by age group and gender, 2004-2008**

Age group	2004		2005		2006		2007		2008	
	Male	Female								
16-20	11.8%	7.3%	11.8%	7.9%	10.9%	6.3%	12.0%	7.3%	12.9%	9.2%
21-24	9.3%	5.6%	9.5%	6.5%	8.3%	4.9%	9.4%	6.0%	11.6%	8.3%
25-29	7.2%	4.9%	8.5%	5.8%	6.4%	4.0%	7.8%	5.2%	9.5%	7.5%
30-34	6.0%	4.4%	6.3%	4.8%	5.1%	3.4%	6.7%	4.5%	8.4%	6.4%
35-39	5.1%	3.7%	5.6%	4.6%	4.3%	3.1%	5.6%	4.0%	7.0%	6.1%
40-44	4.6%	3.3%	4.8%	4.0%	3.7%	2.8%	4.8%	3.9%	6.4%	5.0%
45-49	4.1%	3.0%	4.4%	3.3%	3.6%	2.4%	4.1%	3.6%	5.7%	4.6%
50-54	3.7%	2.7%	4.1%	3.0%	3.1%	2.2%	3.8%	2.9%	4.8%	4.0%
55-59	2.9%	2.3%	3.6%	3.1%	2.4%	1.6%	3.2%	2.6%	4.8%	4.0%
60-64	2.9%	2.4%	3.2%	2.6%	2.1%	1.9%	2.9%	2.3%	3.9%	3.6%
65-69	2.7%	1.7%	2.5%	2.3%	2.3%	1.3%	2.6%	1.8%	3.4%	2.4%
70-74	2.0%	1.7%	2.1%	2.1%	1.7%	1.5%	2.4%	1.6%	3.0%	2.3%
75+	2.4%	1.4%	2.7%	1.7%	1.9%	1.2%	2.2%	1.1%	3.0%	1.9%
<b>All ages</b>	<b>6.4%</b>	<b>4.3%</b>	<b>6.6%</b>	<b>4.9%</b>	<b>5.5%</b>	<b>3.6%</b>	<b>6.5%</b>	<b>4.5%</b>	<b>7.8%</b>	<b>6.1%</b>

**Table 87. Proportion of speeding drivers seriously injured in Indiana collisions, by age group and gender, 2004-2008**

Age group	2004		2005		2006		2007		2008	
	Male	Female								
16-20	2.2%	2.0%	1.9%	1.5%	2.2%	1.5%	2.1%	1.5%	2.1%	1.3%
21-24	2.9%	1.1%	3.0%	1.5%	5.0%	2.0%	2.4%	0.8%	2.8%	1.3%
25-29	2.9%	2.5%	2.8%	1.7%	4.8%	1.9%	3.7%	1.2%	2.8%	1.0%
30-34	3.0%	2.2%	3.0%	2.1%	5.5%	0.5%	4.6%	2.1%	2.7%	1.8%
35-39	3.5%	2.6%	4.0%	2.4%	5.7%	2.0%	4.0%	0.8%	2.9%	1.1%
40-44	3.8%	2.1%	4.2%	1.7%	4.2%	2.5%	3.6%	1.8%	2.7%	1.1%
45-49	3.0%	1.2%	2.5%	2.4%	3.1%	2.7%	3.8%	1.0%	2.5%	2.1%
50-54	3.5%	1.9%	3.6%	1.4%	3.9%	3.0%	3.8%	1.4%	3.0%	3.2%
55-59	2.3%	3.1%	3.7%	3.0%	4.4%	3.2%	1.7%	1.0%	2.0%	1.2%
60-64	1.9%	0.0%	1.2%	1.6%	5.9%	1.1%	1.3%	3.1%	1.5%	1.0%
65-69	3.0%	0.0%	2.4%	0.0%	1.8%	0.0%	2.2%	1.6%	1.6%	3.2%
70-74	0.0%	0.0%	1.3%	5.4%	1.6%	2.5%	1.1%	2.5%	5.5%	0.0%
75+	4.1%	1.3%	2.5%	2.3%	1.8%	0.0%	1.5%	0.0%	1.1%	4.3%
<b>All ages</b>	<b>2.8%</b>	<b>1.9%</b>	<b>2.8%</b>	<b>1.8%</b>	<b>3.8%</b>	<b>1.8%</b>	<b>3.0%</b>	<b>1.3%</b>	<b>2.5%</b>	<b>1.5%</b>

**Notes:**  
 Data limited to drivers with valid gender and age, as marked on the Indiana Crash Report.  
 Serious injuries defined as fatal or incapacitating injuries.

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2009

- In 2008, occupants of vehicles with drivers who were speeding in collisions were 4.5 times (0.8 percent / 0.2 percent) more likely to be killed than occupants of vehicles where the driver was not speeding.
- Occupants of vehicles with drivers who were speeding and impaired were 16.8 times (10.1 percent / 0.6 percent) more likely to be killed in collisions than occupants of vehicles where the driver was speeding only.

**Table 88. Vehicle occupants involved in traffic collisions, by driver speed involvement and alcohol impairment, 2008**

Vehicle driver speeding?	Vehicle driver impaired?	Vehicle occupants killed	Vehicle occupants surviving	Total occupants involved	Killed, as % total	Risk of fatality
Yes	Yes	53	470	523	10.1%	16.8
	No	138	22,735	22,873	0.6%	
	Total	191	23,205	23,396		
No	Yes	95	3,058	3,153	3.0%	19.7
	No	453	295,774	296,227	0.2%	
	Total	548	298,832	299,380		
All	Yes	148	3,528	3,676	4.0%	21.7
	No	591	318,509	319,100	0.2%	
	Total	739	322,037	322,776		
Yes	All	191	23,205	23,396	0.8%	4.5
No		548	298,832	299,380	0.2%	
	Total	739	322,037	322,776		

**Notes:**

*Driver impaired:* BAC = 0.08+

*Risk of fatality* defined as ratio of the rate of *vehicle occupants killed where driver was impaired* (fatal, as % total driver impaired) to *rate of vehicle occupants killed where driver was not impaired* (fatal, as % of total driver not impaired).

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- In 2008, 20.3 percent (70/344) of collisions occurring during the 4am hour on Tuesdays were speed-related.
- Speed-related collisions were most likely during the 8am hour (16.4 percent) and on Tuesdays (15.2 percent).
- Speed-related collisions were least likely between 11am and 6pm.
- Compared to morning rush hour (7am-9am), a smaller percent of collisions during evening rush hour (5pm-7pm) were speed-related.

**Table 89. Percent of Indiana collisions that were speed-related, by time of day and day of week, 2008**

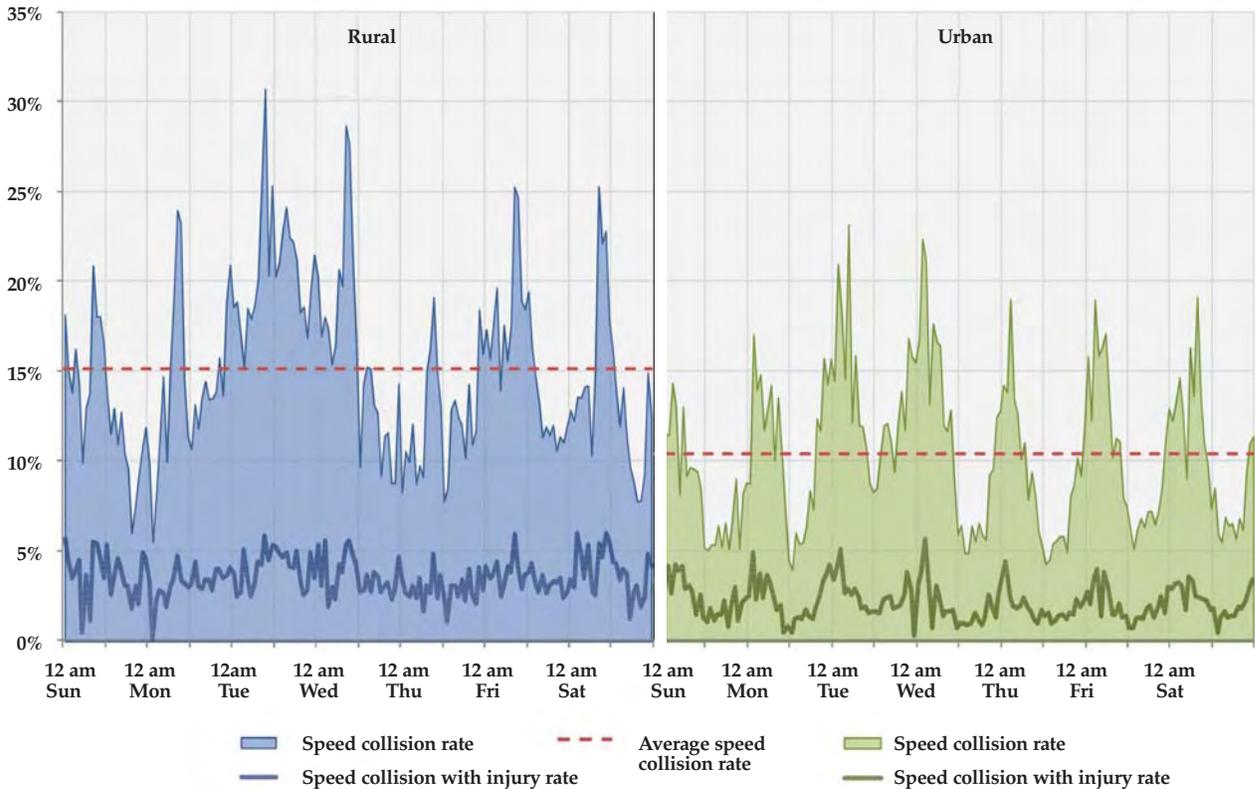
	<div style="display: flex; justify-content: space-around; align-items: center;"> <span>Low</span> <span>&lt;</span> <span>&lt;</span> <span>&gt;</span> <span>&gt;</span> <span>High</span> </div>							
Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	% speed-related by hour
12am-	14.3%	9.2%	16.3%	18.4%	11.7%	16.6%	12.5%	14.2%
1am-	12.9%	11.5%	19.9%	19.6%	12.2%	13.7%	12.8%	14.3%
2am-	14.1%	11.6%	17.8%	19.4%	15.1%	18.4%	14.2%	15.6%
3am-	14.1%	12.8%	14.8%	15.4%	12.8%	17.7%	13.0%	14.3%
4am-	11.0%	13.8%	20.3%	16.3%	10.2%	14.8%	11.6%	13.9%
5am-	11.3%	10.9%	15.9%	16.5%	9.9%	17.4%	15.1%	14.1%
6am-	11.4%	14.7%	17.5%	18.8%	10.0%	14.7%	11.7%	14.8%
7am-	11.6%	14.2%	15.5%	15.3%	10.7%	13.4%	17.1%	14.0%
8am-	14.7%	17.3%	17.0%	17.7%	11.8%	16.7%	18.8%	16.4%
9am-	13.2%	14.9%	17.8%	17.5%	11.5%	16.0%	15.2%	15.4%
10am-	11.9%	9.3%	12.7%	12.7%	8.6%	11.2%	14.5%	11.7%
11am-	9.4%	6.2%	13.1%	8.6%	7.1%	10.5%	10.5%	9.5%
12pm-	7.8%	5.6%	11.7%	7.2%	5.1%	9.6%	10.9%	8.5%
1pm-	7.3%	7.8%	13.4%	7.1%	5.5%	7.9%	8.3%	8.4%
2pm-	7.8%	6.9%	15.2%	7.6%	7.2%	8.3%	7.4%	8.9%
3pm-	7.9%	7.7%	15.9%	8.9%	7.7%	8.5%	8.9%	9.8%
4pm-	7.7%	8.5%	14.5%	7.6%	7.5%	7.7%	8.1%	9.1%
5pm-	7.8%	9.8%	13.6%	8.2%	7.7%	8.5%	7.6%	9.3%
6pm-	7.2%	9.5%	15.3%	7.0%	6.8%	8.7%	6.8%	9.0%
7pm-	6.5%	12.9%	15.7%	7.8%	10.5%	8.5%	7.2%	10.1%
8pm-	8.3%	13.6%	14.7%	10.3%	9.7%	8.6%	6.9%	10.3%
9pm-	7.1%	14.8%	16.9%	9.2%	10.9%	9.8%	9.4%	11.1%
10pm-	9.4%	16.5%	17.6%	10.7%	13.5%	11.2%	12.9%	13.2%
11pm-	10.3%	17.9%	18.3%	13.5%	13.7%	12.5%	11.9%	13.8%
<b>% speed-related by day</b>	<b>9.5%</b>	<b>10.7%</b>	<b>15.2%</b>	<b>11.1%</b>	<b>8.9%</b>	<b>10.6%</b>	<b>10.6%</b>	

**Note:**  
Includes only collisions where time was indicated.

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- On average, rural collisions during any given hour are more likely to be speed-related than urban collisions (15.1 percent versus 10.4 percent).
- For all days, rural speed-related collision rates tend to be higher during late morning hours (6am-11:59am) while urban rates are higher in early morning hours (12am-5:59am).

Figure 29. Rural and urban speed-related collision rates, by time of day and day of week, 2008



**Notes:**

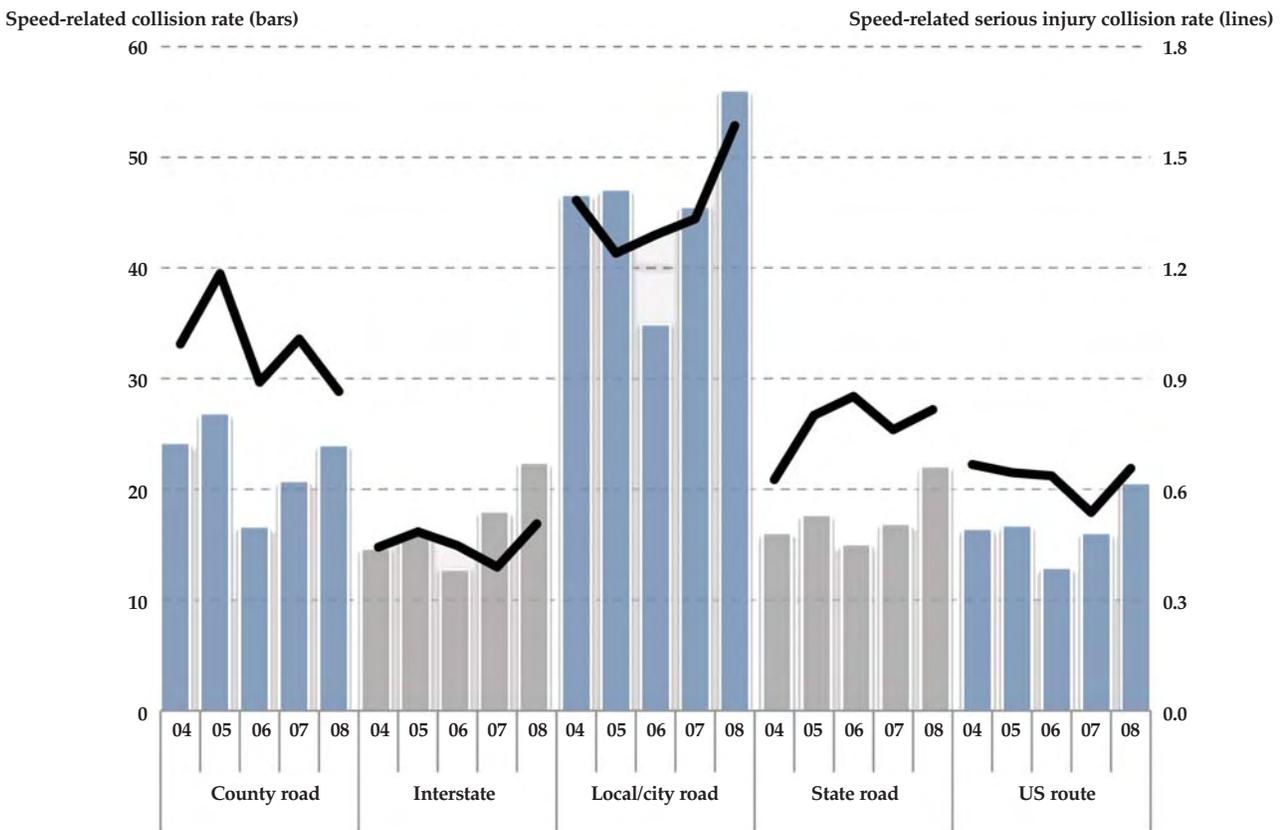
Figure shows percent of collisions for each hour that are speed-related. Includes collisions where time and locale are valid. Speed collision with *injury rate* includes *fatal*, *incapacitating*, and *non-incapacitating* (*non-incapacitating* includes *possible injury severity*) collision severities.

**Source:**

Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2009

- Since 2006, speed-related collision rates have increased each year for all road classes.
- Since 2004, serious injury speed-related collision rates have generally decreased on county roads, increased on local/city and state roads, and remained the same on interstates and US routes.
- Since 2004, speed-related collisions on local/city roads have been approximately twice as likely as on county roads, and three times as likely as on all other road types.
- Since 2004, serious injury speed-related collisions on local/city roads have been approximately one and a half times as likely as on county roads, twice as likely as on state roads and US routes, and three times as likely as on interstates.

**Figure 30. Speed-related and serious injury speed-related collision rates per 100m vehicle miles travelled (VMT), by road class, 2004-2008**



**Notes:**  
 Includes collisions where valid road class was reported.  
 Serious injury defined as collisions with one or more *fatal* or *incapacitating* injuries.

**Sources:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Indiana Department of Transportation, as of February 15, 2009



# COUNTIES



## COUNTIES, 2008

Understanding the spatial distribution of traffic collisions and injuries can assist officials in developing policies and targeting resources to address the varying issues related to those crashes. A variety of factors may influence when and where traffic collisions occur, including the size and makeup of the population and the number of registered vehicles, licensed drivers, and vehicle miles travelled (VMT). The following choropleth and density grid maps show which counties had the highest rates as well as where various types of traffic collisions and injuries

were concentrated in Indiana in 2008. Some maps are normalized in an attempt to account for the disparate volumes of the aforementioned factors.

*Notes: All density grid maps were created using a ten-mile search radius.*

*Choropleth maps use themes, such as color or shading, to depict spatial feature values for a given attribute of the features. Themes are typically based on different categories of the mapped attribute.*

- In 2008, 205,451 traffic collisions occurred in Indiana counties, 722 of which were fatal collisions.
- The mean number of total collisions per county was 2,233, while the mean number of fatal collisions per county was 8.
- Benton County ranks 90th in total collisions, but 1st in fatal collisions as a percent of total collisions.
- Daviess County ranks 82nd in total collisions, but 2nd in fatal collisions as a percent of total collisions.
- Marion County ranks 1st in total collisions, but 71st in fatal collisions as a percent of total collisions.

Table 90. Indiana collisions, by severity and county, 2008

	Total collisions		Fatal			Incapacitating		Non-incapacitating		Property damage only	
	Count	County rank	Count	% total county collisions	County rank (on %)	Count	% total county collisions	Count	% total county collisions	Count	% total county collisions
Indiana	205,451	n/a	722	0.4	n/a	2,898	1.4	32,460	15.8	169,371	82.4
Mean	2,233	n/a	8	n/a	n/a	32	n/a	353	n/a	1,841	n/a
Minimum	154	n/a	1	n/a	n/a	2	n/a	24	n/a	115	n/a
Maximum	28,493	n/a	83	n/a	n/a	442	n/a	4,896	n/a	23,072	n/a
Adams	790	57	3	0.4	56	18	2.3	96	12.2	673	85.2
Allen	12,139	3	20	0.2	89	143	1.2	2,006	16.5	9,970	82.1
Bartholomew	2,426	21	10	0.4	52	45	1.9	520	21.4	1,851	76.3
Benton	185	90	3	1.6	1	2	1.1	30	16.2	150	81.1
Blackford	381	83	2	0.5	37	6	1.6	44	11.5	329	86.4
Boone	1,830	25	8	0.4	49	15	0.8	220	12.0	1,587	86.7
Brown	573	73	3	0.5	38	23	4.0	109	19.0	438	76.4
Carroll	648	66	4	0.6	26	6	0.9	77	11.9	561	86.6
Cass	1,476	32	4	0.3	75	31	2.1	174	11.8	1,267	85.8
Clark	4,371	12	12	0.3	74	57	1.3	729	16.7	3,573	81.7
Clay	783	58	4	0.5	39	10	1.3	106	13.5	663	84.7
Clinton	884	51	8	0.9	19	19	2.1	139	15.7	718	81.2
Crawford	322	85	3	0.9	18	5	1.6	50	15.5	264	82.0
Daviess	391	82	6	1.5	2	5	1.3	112	28.6	268	68.5
Dearborn	2,037	23	3	0.1	90	46	2.3	275	13.5	1,713	84.1
Decatur	875	52	6	0.7	24	10	1.1	117	13.4	742	84.8
DeKalb	1,507	30	5	0.3	66	16	1.1	176	11.7	1,310	86.9
Delaware	4,427	11	6	0.1	91	29	0.7	710	16.0	3,682	83.2
Dubois	899	50	5	0.6	33	17	1.9	173	19.2	704	78.3
Elkhart	6,961	6	25	0.4	59	86	1.2	870	12.5	5,980	85.9
Fayette	564	74	4	0.7	21	5	0.9	107	19.0	448	79.4
Floyd	2,652	19	10	0.4	57	28	1.1	466	17.6	2,148	81.0
Fountain	493	77	3	0.6	27	10	2.0	57	11.6	423	85.8
Franklin	582	71	7	1.2	7	11	1.9	108	18.6	456	78.4
Fulton	633	67	4	0.6	25	9	1.4	78	12.3	542	85.6
Gibson	1,094	43	5	0.5	44	17	1.6	159	14.5	913	83.5
Grant	2,366	22	6	0.3	78	27	1.1	348	14.7	1,985	83.9
Greene	847	55	3	0.4	61	12	1.4	131	15.5	701	82.8
Hamilton	6,634	7	13	0.2	86	72	1.1	906	13.7	5,643	85.1
Hancock	1,646	29	5	0.3	69	33	2.0	312	19.0	1,296	78.7
Harrison	1,207	40	7	0.6	31	16	1.3	176	14.6	1,008	83.5
Hendricks	3,802	14	14	0.4	58	61	1.6	560	14.7	3,167	83.3

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Table 90. (continued)

County	Total collisions		Fatal			Incapacitating		Non-incapacitating		Property damage only	
	Count	County rank	Count	% total county collisions	County rank (on %)	Count	% total county collisions	Count	% total county collisions	Count	% total county collisions
Henry	1,230	39	5	0.4	53	21	1.7	198	16.1	1,006	81.8
Howard	2,513	20	9	0.4	60	55	2.2	493	19.6	1,956	77.8
Huntington	1,234	37	4	0.3	67	27	2.2	154	12.5	1,049	85.0
Jackson	1,452	33	6	0.4	51	31	2.1	204	14.0	1,211	83.4
Jasper	1,441	34	5	0.3	64	21	1.5	194	13.5	1,221	84.7
Jay	731	60	4	0.5	34	8	1.1	113	15.5	606	82.9
Jefferson	1,032	46	3	0.3	72	18	1.7	159	15.4	852	82.6
Jennings	900	49	9	1.0	12	23	2.6	130	14.4	738	82.0
Johnson	3,143	17	12	0.4	55	32	1.0	620	19.7	2,479	78.9
Knox	1,062	44	1	0.1	92	22	2.1	209	19.7	830	78.2
Kosciusko	2,770	18	6	0.2	84	20	0.7	365	13.2	2,379	85.9
LaGrange	992	47	6	0.6	28	17	1.7	106	10.7	863	87.0
Lake	18,562	2	43	0.2	83	205	1.1	2,655	14.3	15,659	84.4
LaPorte	3,637	16	18	0.5	41	57	1.6	608	16.7	2,954	81.2
Lawrence	1,231	38	7	0.6	32	26	2.1	226	18.4	972	79.0
Madison	4,447	10	12	0.3	76	69	1.6	747	16.8	3,619	81.4
Marion	28,493	1	83	0.3	71	442	1.6	4,896	17.2	23,072	81.0
Marshall	1,658	28	7	0.4	50	15	0.9	231	13.9	1,405	84.7
Martin	244	88	2	0.8	20	4	1.6	45	18.4	193	79.1
Miami	1,136	42	4	0.4	63	20	1.8	146	12.9	966	85.0
Monroe	4,349	13	11	0.3	80	47	1.1	798	18.3	3,493	80.3
Montgomery	1,177	41	7	0.6	30	21	1.8	197	16.7	952	80.9
Morgan	1,690	27	8	0.5	42	26	1.5	341	20.2	1,315	77.8
Newton	413	80	6	1.5	5	11	2.7	52	12.6	344	83.3
Noble	1,368	35	4	0.3	70	34	2.5	143	10.5	1,187	86.8
Ohio	248	87	1	0.4	54	2	0.8	24	9.7	221	89.1
Orange	671	64	3	0.4	46	11	1.6	93	13.9	564	84.1
Owen	611	68	9	1.5	4	11	1.8	93	15.2	498	81.5
Parke	686	63	3	0.4	48	7	1.0	77	11.2	599	87.3
Perry	497	76	1	0.2	85	6	1.2	86	17.3	404	81.3
Pike	154	92	2	1.3	6	6	3.9	31	20.1	115	74.7
Porter	5,407	9	27	0.5	40	80	1.5	992	18.3	4,308	79.7
Posey	554	75	3	0.5	35	8	1.4	74	13.4	469	84.7
Pulaski	582	71	1	0.2	87	14	2.4	68	11.7	499	85.7
Putnam	743	59	7	0.9	16	15	2.0	97	13.1	624	84.0
Randolph	600	70	2	0.3	65	12	2.0	73	12.2	513	85.5
Ripley	826	56	2	0.2	82	11	1.3	121	14.6	692	83.8
Rush	404	81	4	1.0	14	14	3.5	97	24.0	289	71.5
St. Joseph	8,058	4	21	0.3	77	112	1.4	1,439	17.9	6,486	80.5
Scott	606	69	6	1.0	14	18	3.0	154	25.4	428	70.6
Shelby	1,338	36	6	0.4	45	29	2.2	265	19.8	1,038	77.6
Spencer	663	65	7	1.1	10	16	2.4	95	14.3	545	82.2
Starke	874	53	6	0.7	23	11	1.3	103	11.8	754	86.3
Steuben	1,697	26	6	0.4	62	15	0.9	162	9.5	1,514	89.2
Sullivan	326	84	5	1.5	3	13	4.0	67	20.6	241	73.9
Switzerland	193	89	2	1.0	11	3	1.6	32	16.6	156	80.8
Tippecanoe	7,602	5	13	0.2	88	59	0.8	949	12.5	6,581	86.6
Tipton	433	79	3	0.7	22	10	2.3	68	15.7	352	81.3
Union	185	90	1	0.5	36	2	1.1	24	13.0	158	85.4
Vanderburgh	6,044	8	15	0.2	81	62	1.0	1,052	17.4	4,915	81.3
Vermillion	439	78	5	1.1	8	13	3.0	62	14.1	359	81.8
Vigo	3,647	15	16	0.4	47	62	1.7	693	19.0	2,876	78.9
Wabash	1,058	45	5	0.5	43	14	1.3	157	14.8	882	83.4
Warren	284	86	3	1.1	9	3	1.1	40	14.1	238	83.8
Warrick	1,496	31	9	0.6	29	13	0.9	161	10.8	1,313	87.8
Washington	700	62	7	1.0	12	16	2.3	106	15.1	571	81.6
Wayne	1,972	24	5	0.3	79	35	1.8	422	21.4	1,510	76.6
Wells	702	61	2	0.3	73	8	1.1	100	14.2	592	84.3
White	963	48	3	0.3	68	13	1.3	101	10.5	846	87.9
Whitley	856	54	8	0.9	17	12	1.4	111	13.0	725	84.7
Unknown	2	n/a	0	0.0	n/a	0	0.0	0	0.0	2	100.0

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

**Source:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, 325,774 individuals were involved in traffic collisions in Indiana counties, 815 of whom were killed.
- The mean number of individuals involved in collisions per county was 3,541, while the mean number of individuals involved in fatal collisions per county was 9.
- Switzerland County ranks 90th in total individuals involved in collisions, but 4th in the number of fatalities as a percentage of all individuals involved in collisions.
- Daviess County ranks 78th in total individuals involved in collisions, but 1st in the number of fatalities as a percentage of all individuals involved in collisions.
- Marion County ranks 1st in total individuals involved in collisions, but 78th in the number of fatalities as a percentage of all individuals involved in collisions.

**Table 91. Individuals involved in Indiana collisions, by injury status and county, 2008**

	Total individuals		Fatal			Incapacitating		Non-incapacitating		Other/No injury	
	Count	County rank	Count	% total county individuals	County rank (on %)	Count	% total county individuals	Count	% total county individuals	Count	% total county individuals
<b>Indiana</b>	<b>325,774</b>	<b>n/a</b>	<b>815</b>	<b>0.3</b>	<b>n/a</b>	<b>3,382</b>	<b>1.0</b>	<b>45,455</b>	<b>14.0</b>	<b>276,122</b>	<b>84.8</b>
Mean	3,541	n/a	9	n/a	n/a	37	n/a	494	n/a	3,001	n/a
Minimum	212	n/a	1	n/a	n/a	2	n/a	27	n/a	159	n/a
Maximum	48,844	n/a	91	n/a	n/a	523	n/a	6,724	n/a	41,506	n/a
Adams	1,175	54	3	0.3	67	21	1.8	154	13.1	997	84.9
Allen	19,537	3	22	0.1	89	167	0.9	2,734	14.0	16,614	85.0
Bartholomew	4,124	20	11	0.3	61	53	1.3	724	17.6	3,336	80.9
Benton	260	89	3	1.2	5	3	1.2	46	17.7	208	80.0
Blackford	512	83	3	0.6	21	6	1.2	55	10.7	448	87.5
Boone	2,677	27	10	0.4	43	17	0.6	330	12.3	2,320	86.7
Brown	753	74	3	0.4	39	29	3.9	142	18.9	579	76.9
Carroll	841	70	6	0.7	15	9	1.1	111	13.2	715	85.0
Cass	2,073	33	8	0.4	41	38	1.8	253	12.2	1,774	85.6
Clark	7,087	10	12	0.2	82	62	0.9	1,016	14.3	5,997	84.6
Clay	1,120	58	5	0.4	33	10	0.9	153	13.7	952	85.0
Clinton	1,275	52	10	0.8	12	22	1.7	193	15.1	1,050	82.4
Crawford	398	85	3	0.8	13	6	1.5	59	14.8	330	82.9
Daviess	619	78	10	1.6	1	6	1.0	157	25.4	446	72.1
Dearborn	3,087	23	3	0.1	91	56	1.8	412	13.3	2,616	84.7
Decatur	1,325	50	7	0.5	25	13	1.0	164	12.4	1,141	86.1
DeKalb	2,156	31	5	0.2	70	18	0.8	255	11.8	1,878	87.1
Delaware	6,996	12	7	0.1	90	36	0.5	985	14.1	5,968	85.3
Dubois	1,441	47	5	0.3	46	18	1.2	252	17.5	1,166	80.9
Elkhart	10,662	8	28	0.3	62	96	0.9	1,199	11.2	9,339	87.6
Fayette	879	66	4	0.5	32	5	0.6	140	15.9	730	83.0
Floyd	4,369	18	11	0.3	68	33	0.8	663	15.2	3,662	83.8
Fountain	642	77	3	0.5	30	10	1.6	69	10.7	560	87.2
Franklin	803	71	7	0.9	10	11	1.4	148	18.4	637	79.3
Fulton	849	69	4	0.5	29	17	2.0	116	13.7	712	83.9
Gibson	1,594	43	5	0.3	53	21	1.3	231	14.5	1,337	83.9
Grant	3,620	22	6	0.2	83	30	0.8	486	13.4	3,098	85.6
Greene	1,163	55	3	0.3	66	13	1.1	195	16.8	952	81.9
Hamilton	11,616	6	14	0.1	88	78	0.7	1,268	10.9	10,256	88.3
Hancock	2,725	25	8	0.3	56	34	1.2	459	16.8	2,224	81.6
Harrison	1,705	41	7	0.4	36	18	1.1	235	13.8	1,445	84.8
Hendricks	6,394	14	14	0.2	72	70	1.1	803	12.6	5,507	86.1
Henry	1,848	38	8	0.4	34	26	1.4	326	17.6	1,488	80.5
Howard	4,363	19	10	0.2	71	58	1.3	682	15.6	3,613	82.8
Huntington	1,720	39	4	0.2	69	32	1.9	213	12.4	1,471	85.5
Jackson	2,096	32	6	0.3	57	37	1.8	290	13.8	1,763	84.1
Jasper	1,988	35	7	0.4	45	27	1.4	306	15.4	1,648	82.9
Jay	1,018	61	4	0.4	40	8	0.8	151	14.8	855	84.0
Jefferson	1,550	44	3	0.2	77	23	1.5	232	15.0	1,292	83.4
Jennings	1,384	49	9	0.7	19	34	2.5	177	12.8	1,164	84.1
Johnson	5,469	17	15	0.3	60	38	0.7	873	16.0	4,543	83.1

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Table 91. (continued)

	Total individuals		Fatal			Incapacitating		Non-incapacitating		Other/No injury	
	Count	County rank	Count	% total county individuals	County rank (on %)	Count	% total county individuals	Count	% total county individuals	Count	% total county individuals
Knox	1,603	42	1	0.1	92	23	1.4	295	18.4	1,284	80.1
Kosciusko	4,055	21	7	0.2	80	25	0.6	477	11.8	3,546	87.4
LaGrange	1,286	51	6	0.5	31	19	1.5	152	11.8	1,109	86.2
Lake	30,653	2	52	0.2	81	234	0.8	3,765	12.3	26,602	86.8
LaPorte	5,508	16	22	0.4	38	67	1.2	859	15.6	4,560	82.8
Lawrence	1,923	36	8	0.4	35	38	2.0	325	16.9	1,552	80.7
Madison	7,002	11	13	0.2	79	78	1.1	1,093	15.6	5,818	83.1
Marion	48,844	1	91	0.2	78	523	1.1	6,724	13.8	41,506	85.0
Marshall	2,270	29	7	0.3	54	18	0.8	309	13.6	1,936	85.3
Martin	344	87	2	0.6	22	5	1.5	62	18.0	275	79.9
Miami	1,530	45	4	0.3	64	23	1.5	214	14.0	1,289	84.2
Monroe	6,995	13	11	0.2	84	59	0.8	1,066	15.2	5,859	83.8
Montgomery	1,706	40	7	0.4	37	22	1.3	280	16.4	1,397	81.9
Morgan	2,687	26	9	0.3	48	34	1.3	451	16.8	2,193	81.6
Newton	545	82	8	1.5	2	13	2.4	71	13.0	453	83.1
Noble	1,893	37	6	0.3	51	42	2.2	195	10.3	1,650	87.2
Ohio	293	88	1	0.3	47	2	0.7	27	9.2	263	89.8
Orange	944	64	3	0.3	50	13	1.4	140	14.8	788	83.5
Owen	874	67	9	1.0	8	13	1.5	150	17.2	702	80.3
Parke	867	68	5	0.6	23	10	1.2	106	12.2	746	86.0
Perry	733	75	1	0.1	87	7	1.0	116	15.8	609	83.1
Pike	212	91	3	1.4	3	7	3.3	43	20.3	159	75.0
Porter	8,554	9	27	0.3	52	97	1.1	1,377	16.1	7,053	82.5
Posey	803	71	3	0.4	42	9	1.1	108	13.4	683	85.1
Pulaski	704	76	2	0.3	58	16	2.3	97	13.8	589	83.7
Putnam	1,066	60	8	0.8	14	18	1.7	141	13.2	899	84.3
Randolph	770	73	2	0.3	65	15	1.9	98	12.7	655	85.1
Ripley	1,147	57	3	0.3	63	11	1.0	177	15.4	956	83.3
Rush	594	81	4	0.7	18	14	2.4	136	22.9	440	74.1
St. Joseph	13,351	4	26	0.2	76	124	0.9	1,956	14.7	11,245	84.2
Scott	1,092	59	6	0.5	24	19	1.7	252	23.1	815	74.6
Shelby	2,036	34	6	0.3	55	32	1.6	384	18.9	1,614	79.3
Spencer	899	65	8	0.9	9	20	2.2	143	15.9	728	81.0
Starke	1,158	56	8	0.7	17	15	1.3	152	13.1	983	84.9
Steuben	2,234	30	8	0.4	44	17	0.8	224	10.0	1,985	88.9
Sullivan	479	84	5	1.0	7	15	3.1	106	22.1	353	73.7
Switzerland	245	90	3	1.2	4	5	2.0	45	18.4	192	78.4
Tippecanoe	11,767	5	17	0.1	85	64	0.5	1,283	10.9	10,403	88.4
Tipton	601	79	3	0.5	26	13	2.2	95	15.8	490	81.5
Union	212	91	1	0.5	28	2	0.9	36	17.0	173	81.6
Vanderburgh	10,994	7	15	0.1	86	72	0.7	1,465	13.3	9,442	85.9
Vermillion	601	79	5	0.8	11	16	2.7	95	15.8	485	80.7
Vigo	6,020	15	17	0.3	59	71	1.2	972	16.1	4,960	82.4
Wabash	1,505	46	5	0.3	49	18	1.2	217	14.4	1,265	84.1
Warren	355	86	4	1.1	6	4	1.1	50	14.1	297	83.7
Warrick	2,319	28	11	0.5	27	14	0.6	244	10.5	2,050	88.4
Washington	1,001	63	7	0.7	16	19	1.9	168	16.8	807	80.6
Wayne	2,918	24	6	0.2	74	41	1.4	585	20.0	2,286	78.3
Wells	1,008	62	2	0.2	75	8	0.8	141	14.0	857	85.0
White	1,414	48	3	0.2	73	14	1.0	170	12.0	1,227	86.8
Whitley	1,246	53	8	0.6	20	15	1.2	161	12.9	1,062	85.2
Unknown	1	n/a	0	n/a	n/a	0	n/a	0	n/a	1	n/a

Notes:

Non-incapacitating injuries include those reported as non-incapacitating and possible injuries.

Other/no injury counts include injury type values identified as not reported, refused, unknown, invalid, and missing codes.

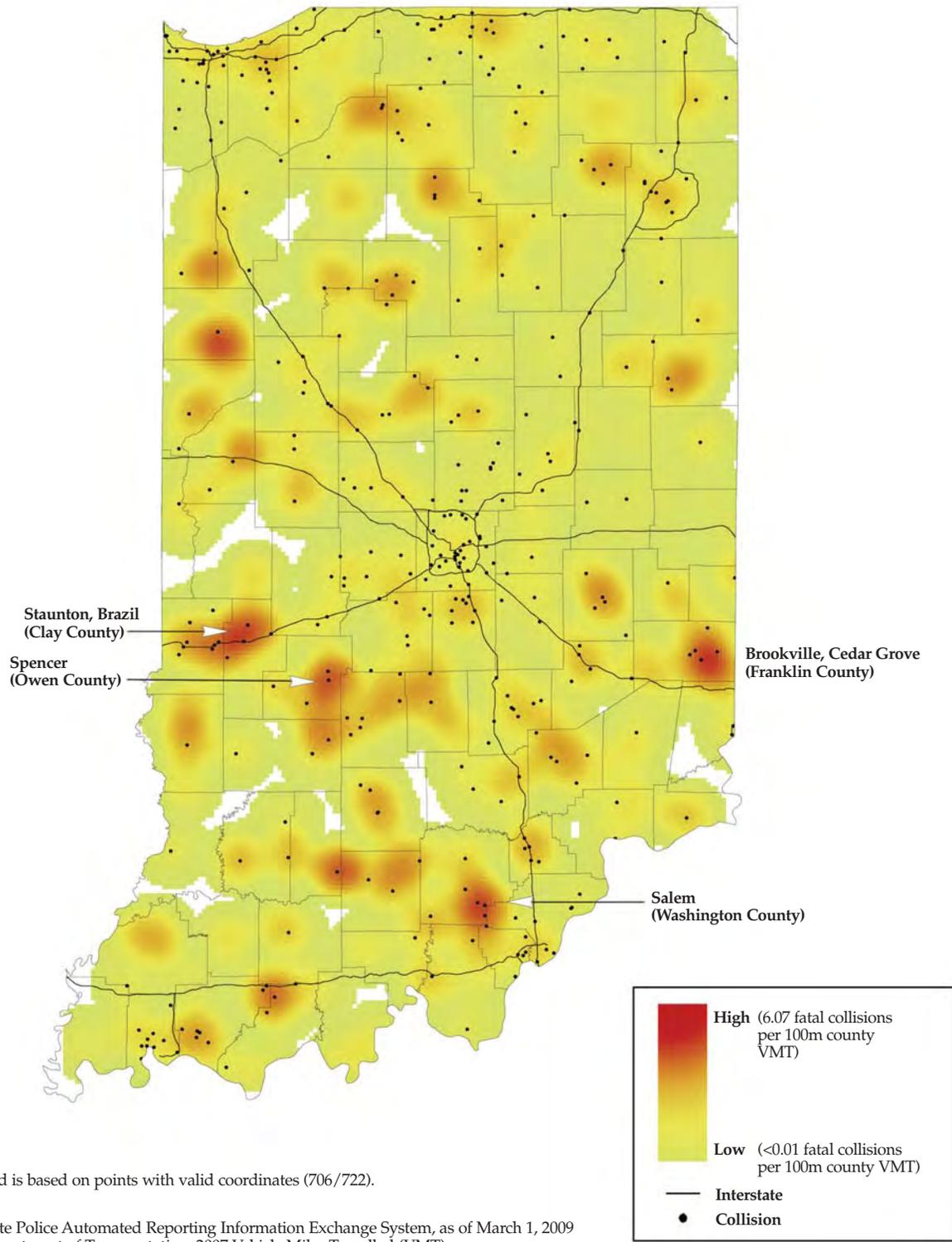
Source:

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009



➤ In 2008, Franklin, Washington, Clay, and Owen counties were among counties with the highest concentrations of fatal collisions per 100 million county vehicle miles travelled (VMT).

Map 2. Indiana fatal collision concentrations per 100m county vehicle miles travelled (VMT), 2008



**Note:**  
Density grid is based on points with valid coordinates (706/722).

**Sources:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Indiana Department of Transportation, 2007 Vehicle Miles Travelled (VMT)

- The mean number of total speed-related collisions per county was 248, while the mean number of fatal speed-related collisions per county was 2.
- LaGrange County ranks 1st in speed-related collisions as a percent of total collisions, but 69th in speed-related fatal collisions as a percent of total fatal collisions.
- Allen County ranks 41st in speed-related collisions as a percent of total collisions, but 4th in speed-related fatal collisions as a percent of total fatal collisions.
- Clark County ranks 78th in speed-related collisions as a percent of total collisions, but 18th in speed-related fatal collisions as a percent of total fatal collisions.

Table 92. Indiana speed-related collisions, by severity and county, 2008

	All collisions			Fatal			Personal injury		Property damage only	
	Speed-related collisions	Speed-related as % of total collisions	County rank (on %)	Count	Speed-related as % of total fatal collisions	County rank (on %)	Count	Speed-related as % of total personal injury collisions	Count	Speed-related as % of total property damage only collisions
Indiana	22,819	11.1	n/a	188	26.0	n/a	4,711	13.3	17,920	10.6
Mean	248	n/a	n/a	2	n/a	n/a	51	n/a	195	n/a
Minimum	8	n/a	n/a	0	n/a	n/a	1	n/a	7	n/a
Maximum	2,960	n/a	n/a	34	n/a	n/a	611	n/a	2,315	n/a
Adams	45	5.7	82	1	33.3	18	8	7.0	36	5.3
Allen	1,322	10.9	41	11	55.0	4	280	13.0	1,031	10.3
Bartholomew	125	5.2	85	0	0.0	69	39	6.9	86	4.6
Benton	26	14.1	21	1	33.3	18	3	9.4	22	14.7
Blackford	23	6.0	81	1	50.0	5	6	12.0	16	4.9
Boone	240	13.1	27	1	12.5	62	47	20.0	192	12.1
Brown	72	12.6	29	1	33.3	18	27	20.5	44	10.0
Carroll	124	19.1	3	1	25.0	42	19	22.9	104	18.5
Cass	106	7.2	71	0	0.0	69	22	10.7	84	6.6
Clark	279	6.4	78	4	33.3	18	72	9.2	203	5.7
Clay	57	7.3	70	1	25.0	42	9	7.8	47	7.1
Clinton	151	17.1	6	2	25.0	42	23	14.6	126	17.5
Crawford	34	10.6	42	1	33.3	18	9	16.4	24	9.1
Daviess	31	7.9	64	2	33.3	18	6	5.1	23	8.6
Dearborn	198	9.7	51	1	33.3	18	42	13.1	155	9.0
Decatur	137	15.7	12	0	0.0	69	27	21.3	110	14.8
DeKalb	179	11.9	34	1	20.0	49	30	15.6	148	11.3
Delaware	593	13.4	25	2	33.3	18	99	13.4	492	13.4
Dubois	111	12.3	30	0	0.0	69	42	22.1	69	9.8
Elkhart	1,101	15.8	11	9	36.0	17	162	16.9	930	15.6
Fayette	19	3.4	91	0	0.0	69	5	4.5	14	3.1
Floyd	128	4.8	88	2	20.0	49	31	6.3	95	4.4
Fountain	69	14.0	23	1	33.3	18	17	25.4	51	12.1
Franklin	87	14.9	16	1	14.3	59	24	20.2	62	13.6
Fulton	104	16.4	9	0	0.0	69	22	25.3	82	15.1
Gibson	114	10.4	45	2	40.0	13	23	13.1	89	9.7
Grant	399	16.9	7	2	33.3	18	80	21.3	317	16.0
Greene	55	6.5	76	0	0.0	69	15	10.5	40	5.7
Hamilton	552	8.3	59	2	15.4	58	99	10.1	451	8.0
Hancock	159	9.7	52	3	60.0	3	33	9.6	123	9.5
Harrison	90	7.5	68	1	14.3	59	23	12.0	66	6.5
Hendricks	364	9.6	53	1	7.1	67	75	12.1	288	9.1
Henry	142	11.5	36	2	40.0	13	31	14.2	109	10.8
Howard	193	7.7	66	1	11.1	63	48	8.8	144	7.4
Huntington	123	10.0	48	1	25.0	42	22	12.2	100	9.5
Jackson	93	6.4	77	1	16.7	54	20	8.5	72	5.9
Jasper	213	14.8	17	1	20.0	49	41	19.1	171	14.0
Jay	38	5.2	84	0	0.0	69	7	5.8	31	5.1
Jefferson	97	9.4	54	0	0.0	69	38	21.5	59	6.9

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Table 92. (continued)

	All collisions			Fatal			Personal injury		Property damage only	
	Speed-related collisions	Speed-related as % of total collisions	County rank (on %)	Count	Speed-related as % of total fatal collisions	County rank (on %)	Count	Speed-related as % of total personal injury collisions	Count	Speed-related as % of total property damage only collisions
Jennings	59	6.6	75	1	11.1	63	17	11.1	41	5.6
Johnson	260	8.3	60	1	8.3	66	60	9.2	199	8.0
Knox	112	10.5	43	0	0.0	69	37	16.0	75	9.0
Kosciusko	259	9.4	55	1	16.7	54	46	11.9	212	8.9
LaGrange	263	26.5	1	0	0.0	69	45	36.6	218	25.3
Lake	2,812	15.1	14	13	30.2	37	565	19.8	2,234	14.3
LaPorte	506	13.9	24	5	27.8	40	84	12.6	417	14.1
Lawrence	84	6.8	73	3	42.9	10	26	10.3	55	5.7
Madison	409	9.2	56	4	33.3	18	77	9.4	328	9.1
Marion	2,960	10.4	46	34	41.0	12	611	11.4	2,315	10.0
Marshall	181	10.9	40	2	28.6	38	37	15.0	142	10.1
Martin	27	11.1	38	0	0.0	69	9	18.4	18	9.3
Miami	159	14.0	22	2	50.0	5	26	15.7	131	13.6
Monroe	389	8.9	58	3	27.3	41	88	10.4	298	8.5
Montgomery	107	9.1	57	3	42.9	10	24	11.0	80	8.4
Morgan	187	11.1	39	2	25.0	42	48	13.1	137	10.4
Newton	80	19.4	2	2	33.3	18	20	31.7	58	16.9
Noble	226	16.5	8	1	25.0	42	36	20.3	189	15.9
Ohio	8	3.2	92	0	0.0	69	1	3.8	7	3.2
Orange	36	5.4	83	1	33.3	18	14	13.5	21	3.7
Owen	50	8.2	62	1	11.1	63	8	7.7	41	8.2
Parke	83	12.1	32	1	33.3	18	20	23.8	62	10.4
Perry	31	6.2	80	1	100.0	1	10	10.9	20	5.0
Pike	24	15.6	13	1	50.0	5	11	29.7	12	10.4
Porter	817	15.1	15	9	33.3	18	158	14.7	650	15.1
Posey	68	12.3	31	2	66.7	2	12	14.6	54	11.5
Pulaski	48	8.2	61	0	0.0	69	8	9.8	40	8.0
Putnam	89	12.0	33	1	14.3	59	21	18.8	67	10.7
Randolph	38	6.3	79	0	0.0	69	5	5.9	33	6.4
Ripley	67	8.1	63	1	50.0	5	13	9.8	53	7.7
Rush	46	11.4	37	0	0.0	69	10	9.0	36	12.5
St. Joseph	1,066	13.2	26	5	23.8	48	240	15.5	821	12.7
Scott	31	5.1	86	1	16.7	54	6	3.5	24	5.6
Shelby	194	14.5	20	2	33.3	18	53	18.0	139	13.4
Spencer	65	9.8	50	2	28.6	38	25	22.5	38	7.0
Starke	37	4.2	89	1	16.7	54	14	12.3	22	2.9
Steuben	324	19.1	4	3	50.0	5	61	34.5	260	17.2
Sullivan	34	10.4	44	1	20.0	49	9	11.3	24	10.0
Switzerland	13	6.7	74	0	0.0	69	2	5.7	11	7.1
Tippecanoe	994	13.1	28	4	30.8	36	161	16.0	829	12.6
Tipton	63	14.5	19	0	0.0	69	10	12.8	53	15.1
Union	14	7.6	67	0	0.0	69	4	15.4	10	6.3
Vanderburgh	442	7.3	69	1	6.7	68	104	9.3	337	6.9
Vermillion	34	7.7	65	2	40.0	13	7	9.3	25	7.0
Vigo	178	4.9	87	5	31.3	35	46	6.1	127	4.4
Wabash	125	11.8	35	0	0.0	69	30	17.5	95	10.8
Warren	46	16.2	10	0	0.0	69	8	18.6	38	16.0
Warrick	150	10.0	47	0	0.0	69	31	17.8	119	9.1
Washington	28	4.0	90	0	0.0	69	12	9.8	16	2.8
Wayne	135	6.8	72	1	20.0	49	43	9.4	91	6.0
Wells	69	9.8	49	0	0.0	69	19	17.6	50	8.4
White	141	14.6	18	1	33.3	18	26	22.8	114	13.5
Whitley	158	18.5	5	3	37.5	16	27	22.0	128	17.7

**Notes:**

Percent calculations represent the percent of total county collisions (presented in Table 90) in each injury category that are speed-related.

*Personal injury* collisions include collisions with *incapacitating*, *non-incapacitating*, and *possible* injuries.

Fatal speed-related county rank values may result in a tie due to the fact that a number of counties have the same value for speed-related fatal collisions as a percentage of total county fatal collisions.

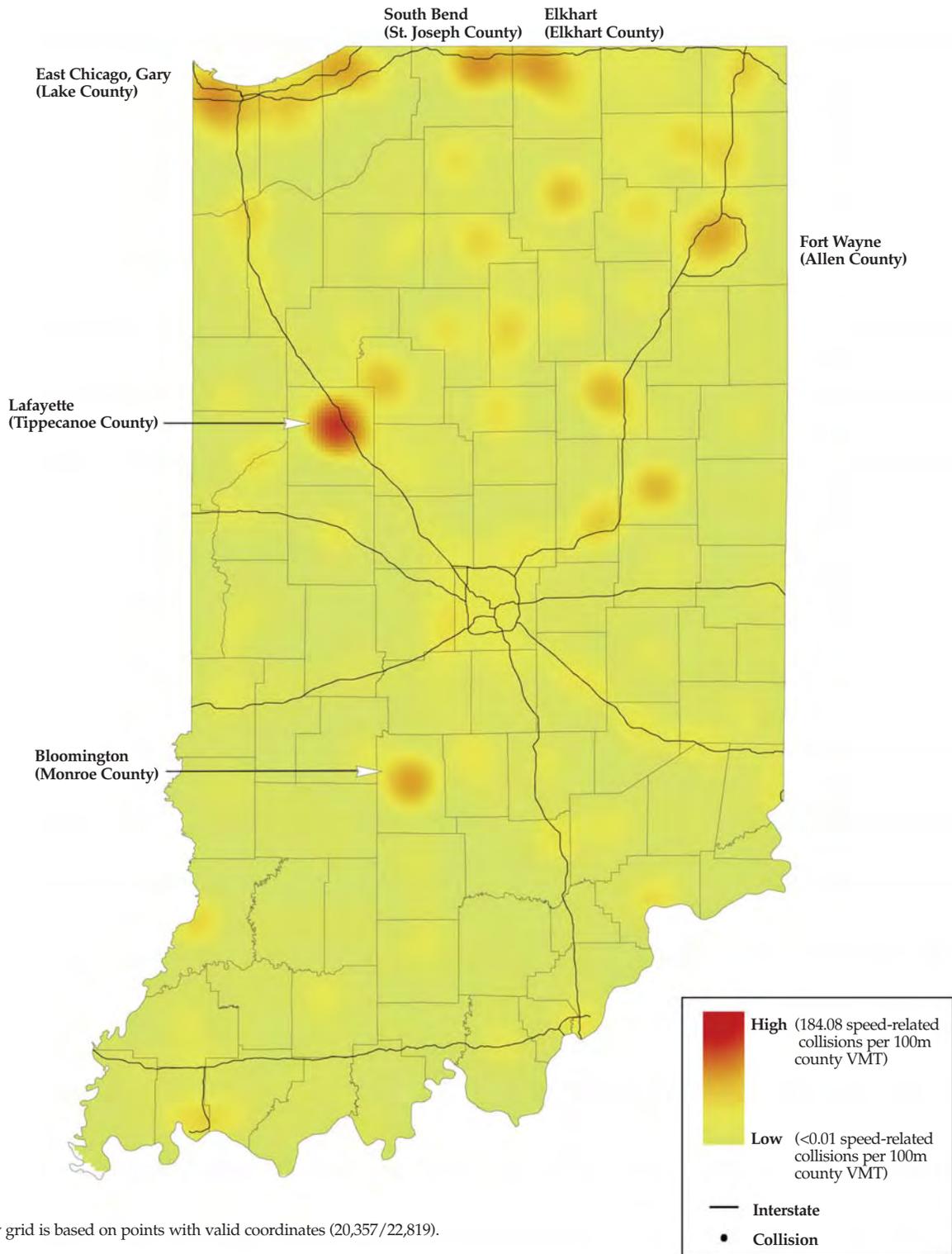
**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009



► In 2008, Tippecanoe, Allen, Monroe, Lake, St. Joseph, and Elkhart counties were among counties with the highest concentrations of speed-related collisions per 100 million county vehicle miles travelled (VMT).

Map 4. Indiana speed-related collision concentrations per 100m county vehicle miles travelled (VMT), 2008



**Note:**  
Density grid is based on points with valid coordinates (20,357/22,819).

**Sources:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Indiana Department of Transportation, 2007 Vehicle Miles Travelled (VMT)

- The mean number of total alcohol-related collisions per county was 102, while the mean number of fatal alcohol-related collisions per county was 2.
- Delaware County ranks 52nd in alcohol-related collisions as a percent of total collisions, but ties for 11th in alcohol-related fatal collisions as a percent of total fatal collisions.

**Table 93. Indiana alcohol-related collisions, by severity and county, 2008**

	All collisions			Fatal			Personal injury		Property damage only	
	Alcohol-related collisions	Alcohol-related as % of total collisions	County rank (on %)	Count	Alcohol-related as % of total fatal collisions	County rank (on %)	Count	Alcohol-related as % of total personal injury collisions	Count	Alcohol-related as % of total property damage only collisions
Indiana	9,411	4.6	n/a	218	30.2	n/a	3,225	9.1	5,968	3.5
Mean	102	n/a	n/a	2	n/a	n/a	35	n/a	65	n/a
Minimum	5	n/a	n/a	0	n/a	n/a	1	n/a	2	n/a
Maximum	1,170	n/a	n/a	35	n/a	n/a	388	n/a	747	n/a
Adams	27	3.4	81	1	33.3	26	15	13.2	11	1.6
Allen	591	4.9	36	4	20.0	58	178	8.3	409	4.1
Bartholomew	95	3.9	62	1	10.0	67	40	7.1	54	2.9
Benton	5	2.7	89	1	33.3	26	2	6.3	2	1.3
Blackford	10	2.6	90	1	50.0	11	3	6.0	6	1.8
Boone	56	3.1	85	2	25.0	45	14	6.0	40	2.5
Brown	38	6.6	6	0	0.0	68	23	17.4	15	3.4
Carroll	18	2.8	88	1	25.0	45	6	7.2	11	2.0
Cass	58	3.9	61	0	0.0	68	18	8.8	40	3.2
Clark	222	5.1	30	2	16.7	61	68	8.7	152	4.3
Clay	40	5.1	29	2	50.0	11	17	14.7	21	3.2
Clinton	42	4.8	40	1	12.5	66	21	13.3	20	2.8
Crawford	17	5.3	23	2	66.7	5	7	12.7	8	3.0
Daviess	30	7.7	4	2	33.3	26	12	10.3	16	6.0
Dearborn	76	3.7	72	0	0.0	68	26	8.1	50	2.9
Decatur	41	4.7	42	1	16.7	61	19	15.0	21	2.8
DeKalb	57	3.8	69	2	40.0	23	27	14.1	28	2.1
Delaware	190	4.3	52	3	50.0	11	56	7.6	131	3.6
Dubois	42	4.7	43	2	40.0	23	17	8.9	23	3.3
Elkhart	271	3.9	65	8	32.0	38	75	7.8	188	3.1
Fayette	30	5.3	22	2	50.0	11	8	7.1	20	4.5
Floyd	147	5.5	19	2	20.0	58	54	10.9	91	4.2
Fountain	23	4.7	45	0	0.0	68	6	9.0	17	4.0
Franklin	36	6.2	10	2	28.6	41	13	10.9	21	4.6
Fulton	36	5.7	18	0	0.0	68	7	8.0	29	5.4
Gibson	56	5.1	28	4	80.0	2	23	13.1	29	3.2
Grant	88	3.7	73	2	33.3	26	33	8.8	53	2.7
Greene	33	3.9	64	0	0.0	68	13	9.1	20	2.9
Hamilton	230	3.5	78	3	23.1	54	78	8.0	149	2.6
Hancock	69	4.2	55	3	60.0	7	31	9.0	35	2.7
Harrison	70	5.8	16	4	57.1	9	20	10.4	46	4.6
Hendricks	148	3.9	66	4	28.6	41	50	8.1	94	3.0
Henry	41	3.3	82	0	0.0	68	10	4.6	31	3.1
Howard	132	5.3	25	5	55.6	10	56	10.2	71	3.6
Huntington	39	3.2	84	1	25.0	45	13	7.2	25	2.4
Jackson	59	4.1	58	1	16.7	61	21	8.9	37	3.1
Jasper	54	3.7	70	0	0.0	68	17	7.9	37	3.0
Jay	24	3.3	83	1	25.0	45	10	8.3	13	2.1
Jefferson	61	5.9	15	1	33.3	26	18	10.2	42	4.9
Jennings	41	4.6	46	2	22.2	55	17	11.1	22	3.0
Johnson	143	4.5	47	3	25.0	45	44	6.7	96	3.9
Knox	65	6.1	11	0	0.0	68	30	13.0	35	4.2
Kosciusko	97	3.5	76	3	50.0	11	30	7.8	64	2.7
LaGrange	47	4.7	41	0	0.0	68	19	15.4	28	3.2
Lake	967	5.2	26	17	39.5	25	321	11.2	629	4.0
LaPorte	220	6.0	13	8	44.4	21	86	12.9	126	4.3
Lawrence	60	4.9	35	2	28.6	41	18	7.1	40	4.1

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Table 93. (continued)

	All collisions			Fatal			Personal injury		Property damage only	
	Alcohol-related collisions	Alcohol-related as % of total collisions	County rank (on %)	Count	Alcohol-related as % of total fatal collisions	County rank (on %)	Count	Alcohol-related as % of total personal injury collisions	Count	Alcohol-related as % of total property damage only collisions
Madison	219	4.9	33	4	33.3	26	61	7.5	154	4.3
Marion	1,170	4.1	56	35	42.2	22	388	7.3	747	3.2
Marshall	68	4.1	57	1	14.3	65	23	9.3	44	3.1
Martin	9	3.7	74	0	0.0	68	3	6.1	6	3.1
Miami	46	4.0	59	0	0.0	68	14	8.4	32	3.3
Monroe	210	4.8	38	5	45.5	20	78	9.2	127	3.6
Montgomery	50	4.2	53	0	0.0	68	24	11.0	26	2.7
Morgan	88	5.2	27	2	25.0	45	34	9.3	52	4.0
Newton	18	4.4	51	3	50.0	11	8	12.7	7	2.0
Noble	54	3.9	60	3	75.0	4	21	11.9	30	2.5
Ohio	11	4.4	48	0	0.0	68	2	7.7	9	4.1
Orange	26	3.9	67	0	0.0	68	13	12.5	13	2.3
Owen	38	6.2	8	2	22.2	55	15	14.4	21	4.2
Parke	24	3.5	77	1	33.3	26	3	3.6	20	3.3
Perry	31	6.2	7	0	0.0	68	12	13.0	19	4.7
Pike	16	10.4	1	1	50.0	11	8	21.6	7	6.1
Porter	299	5.5	20	9	33.3	26	127	11.8	163	3.8
Posey	40	7.2	5	0	0.0	68	22	26.8	18	3.8
Pulaski	20	3.4	79	1	100.0	1	7	8.5	12	2.4
Putnam	29	3.9	63	0	0.0	68	7	6.3	22	3.5
Randolph	28	4.7	44	1	50.0	11	5	5.9	22	4.3
Ripley	25	3.0	86	0	0.0	68	14	10.6	11	1.6
Rush	25	6.2	9	1	25.0	45	9	8.1	15	5.2
St. Joseph	404	5.0	31	5	23.8	53	147	9.5	252	3.9
Scott	22	3.6	75	0	0.0	68	11	6.4	11	2.6
Shelby	77	5.8	17	1	16.7	61	32	10.9	44	4.2
Spencer	53	8.0	3	2	28.6	41	25	22.5	26	4.8
Starke	43	4.9	34	3	50.0	11	13	11.4	27	3.6
Steuben	58	3.4	80	2	33.3	26	15	8.5	41	2.7
Sullivan	28	8.6	2	3	60.0	7	13	16.3	12	5.0
Switzerland	5	2.6	91	0	0.0	68	1	2.9	4	2.6
Tippecanoe	335	4.4	49	4	30.8	40	95	9.4	236	3.6
Tipton	19	4.4	50	1	33.3	26	6	7.7	12	3.4
Union	11	5.9	14	0	0.0	68	5	19.2	6	3.8
Vanderburgh	319	5.3	24	5	33.3	26	82	7.4	232	4.7
Vermillion	21	4.8	39	0	0.0	68	9	12.0	12	3.3
Vigo	182	5.0	32	5	31.3	39	63	8.3	114	4.0
Wabash	25	2.4	92	1	20.0	58	9	5.3	15	1.7
Warren	12	4.2	54	2	66.7	5	5	11.6	5	2.1
Warrick	56	3.7	71	2	22.2	55	15	8.6	39	3.0
Washington	34	4.9	37	0	0.0	68	12	9.8	22	3.9
Wayne	120	6.1	12	4	80.0	2	44	9.6	72	4.8
Wells	27	3.8	68	0	0.0	68	11	10.2	16	2.7
White	27	2.8	87	1	33.3	26	8	7.0	18	2.1
Whitley	47	5.5	21	2	25.0	45	16	13.0	29	4.0

Notes:

Percent calculations represent the percent of total county collisions (presented in Table 90) in each injury category that are alcohol-related.

Personal injury collisions include collisions with incapacitating, non-incapacitating, and possible injuries.

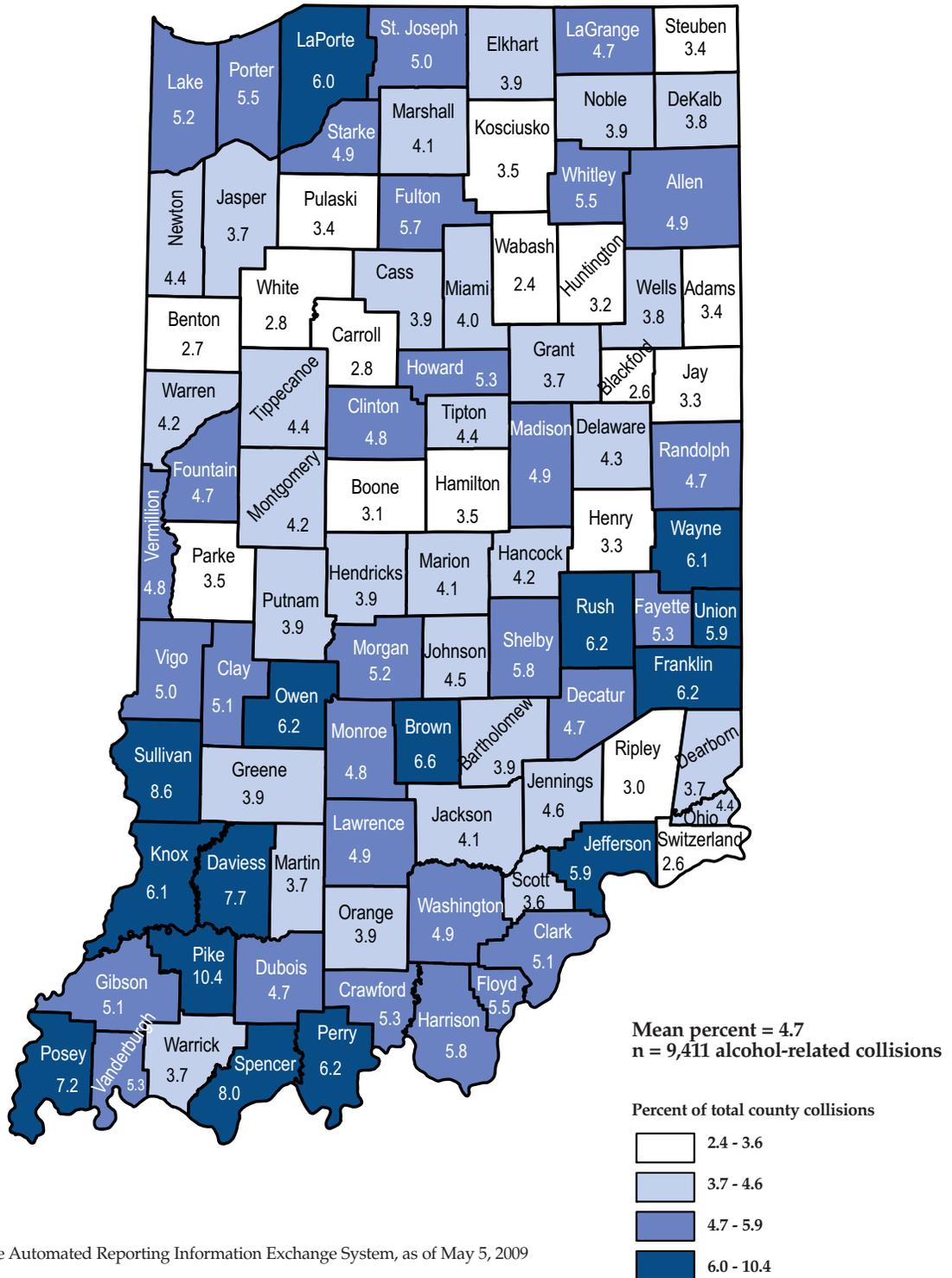
Fatal alcohol-related county rank values may result in a tie due to the fact that a number of counties have the same value for alcohol-related fatal collisions as a percentage of total county fatal collisions.

Source:

Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

- The highest county proportions of Indiana alcohol-related collisions were in the southwestern (Davies, Knox, Perry, Pike, Posey, Spencer, and Sullivan) counties of the state.
- Pike (10.4) and Sullivan (8.6) counties represented the highest percentage of county alcohol-related collisions, while Wabash (2.4), Blackford (2.6), and Switzerland (2.6) counties represented the lowest percentage.

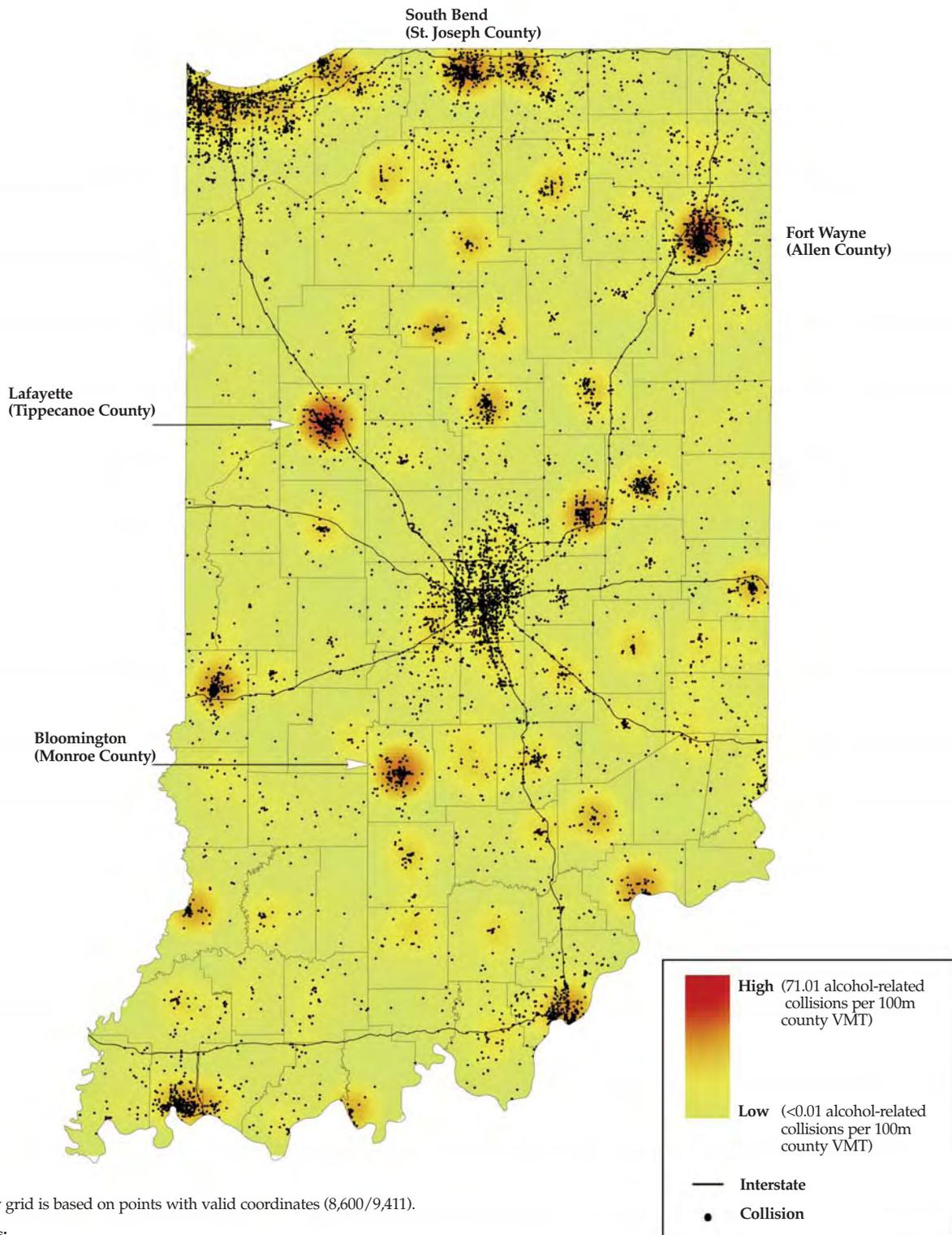
Map 5. Percentage of county collisions that were alcohol-related, 2008



Source: Indiana State Police Automated Reporting Information Exchange System, as of May 5, 2009

➤ In 2008, Tippecanoe, Allen, Monroe, and St. Joseph counties were among counties with the highest concentrations of alcohol-related collisions per 100 million county vehicle miles travelled (VMT).

Map 6. Indiana alcohol-related collision concentrations per 100m county vehicle miles travelled (VMT), 2008

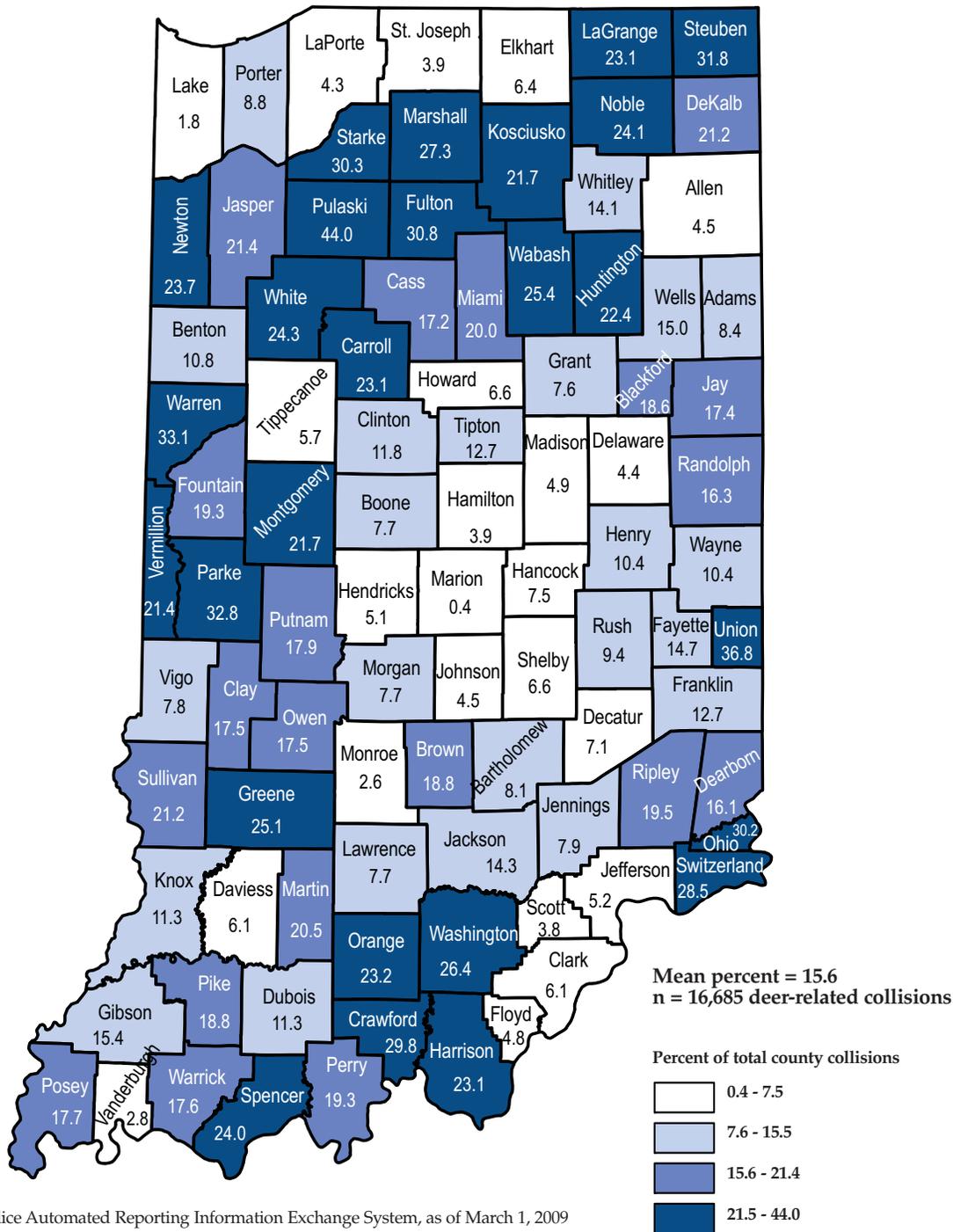


**Note:**  
Density grid is based on points with valid coordinates (8,600/9,411).

**Sources:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Indiana Department of Transportation, 2007 Vehicle Miles Travelled (VMT)

- In 2008, 16,685 traffic collisions involving deer occurred in Indiana counties, with a mean number of deer-involved collisions per county of 181 (not shown).
- Statewide, over 97 percent of deer-involved collisions were property damage only.
- Some of the highest proportions of Indiana deer-involved collisions were located in the northern (Carroll, Fulton, Huntington, Kosciusko, LaGrange, Marshall, Newton, Noble, Pulaski, Starke, Steuben, and White), western (Greene, Montgomery, Parke, Vermillion, and Warren), and southern (Crawford, Harrison, Ohio, Orange, Spencer, Switzerland, and Washington) counties of the state.

Map 7. Percentage of county collisions that involved a deer, 2008



Source: Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

- In 2008, statewide, the percentage of county *fatal* injuries in which the victim was not wearing the proper restraint was 49.7 percent, compared to the percentage of *non-incapacitating* injuries that were not properly restrained of 10.4 percent.
- In eight Indiana counties (Blackford, DeKalb, Hancock, Ohio, Perry, Pulaski, Randolph, and Switzerland), 100 percent of all fatalities were unrestrained.

**Table 94. Vehicle occupants injured in Indiana collisions, by injury status, restraint use, and county, 2008**

	Fatal			Incapacitating			Non-incapacitating		
	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained
<b>Indiana</b>	<b>739</b>	<b>367</b>	<b>49.7</b>	<b>3,093</b>	<b>862</b>	<b>27.9</b>	<b>43,264</b>	<b>4,504</b>	<b>10.4</b>
Mean	8	4	n/a	34	9	n/a	470	49	n/a
Minimum	1	0	n/a	2	0	n/a	27	0	n/a
Maximum	75	44	n/a	455	82	n/a	6,302	527	n/a
Adams	2	1	50.0	21	9	42.9	150	19	12.7
Allen	18	12	66.7	147	43	29.3	2,577	191	7.4
Bartholomew	11	4	36.4	49	14	28.6	695	63	9.1
Benton	3	1	33.3	3	1	33.3	45	2	4.4
Blackford	3	3	100.0	6	2	33.3	50	5	10.0
Boone	10	4	40.0	14	5	35.7	314	38	12.1
Brown	3	1	33.3	29	10	34.5	140	30	21.4
Carroll	6	1	16.7	9	2	22.2	110	15	13.6
Cass	7	1	14.3	36	8	22.2	244	25	10.2
Clark	11	7	63.6	56	18	32.1	963	102	10.6
Clay	5	3	60.0	8	2	25.0	151	13	8.6
Clinton	8	1	12.5	21	8	38.1	184	21	11.4
Crawford	3	2	66.7	6	1	16.7	59	9	15.3
Daviess	10	4	40.0	6	3	50.0	154	29	18.8
Dearborn	3	1	33.3	55	15	27.3	407	37	9.1
Decatur	6	3	50.0	13	7	53.8	157	18	11.5
DeKalb	5	5	100.0	18	13	72.2	246	37	15.0
Delaware	6	1	16.7	36	11	30.6	938	109	11.6
Dubois	5	3	60.0	17	6	35.3	248	36	14.5
Elkhart	25	11	44.0	85	18	21.2	1,088	111	10.2
Fayette	3	2	66.7	4	3	75.0	136	14	10.3
Floyd	9	4	44.4	29	11	37.9	639	56	8.8
Fountain	3	1	33.3	9	2	22.2	67	9	13.4
Franklin	7	3	42.9	9	1	11.1	144	16	11.1
Fulton	4	2	50.0	16	3	18.8	110	17	15.5
Gibson	4	2	50.0	21	2	9.5	221	27	12.2
Grant	5	3	60.0	28	8	28.6	467	70	15.0
Greene	3	1	33.3	13	3	23.1	190	35	18.4
Hamilton	14	7	50.0	70	11	15.7	1,220	84	6.9
Hancock	8	8	100.0	32	6	18.8	447	46	10.3
Harrison	7	5	71.4	17	2	11.8	227	19	8.4
Hendricks	13	8	61.5	67	15	22.4	778	53	6.8
Henry	8	4	50.0	25	5	20.0	321	44	13.7
Howard	8	2	25.0	52	13	25.0	648	61	9.4
Huntington	4	3	75.0	29	3	10.3	204	32	15.7
Jackson	6	3	50.0	33	14	42.4	274	26	9.5
Jasper	7	4	57.1	26	10	38.5	298	57	19.1
Jay	4	2	50.0	8	3	37.5	143	13	9.1
Jefferson	2	1	50.0	22	6	27.3	225	33	14.7
Jennings	8	4	50.0	33	7	21.2	172	20	11.6
Johnson	13	8	61.5	37	8	21.6	836	73	8.7
Knox	1	0	0.0	20	7	35.0	280	44	15.7
Kosciusko	7	1	14.3	24	9	37.5	457	50	10.9
LaGrange	5	3	60.0	17	4	23.5	145	22	15.2
Lake	43	27	62.8	212	52	24.5	3,571	340	9.5
LaPorte	22	6	27.3	57	17	29.8	798	57	7.1
Lawrence	8	3	37.5	36	11	30.6	320	43	13.4
Madison	12	6	50.0	67	21	31.3	1,037	176	17.0
Marion	75	44	58.7	455	82	18.0	6,302	527	8.4
Marshall	6	2	33.3	17	4	23.5	290	26	9.0
Martin	2	1	50.0	5	2	40.0	62	10	16.1

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**Table 94. (continued)**

	Fatal			Incapacitating			Non-incapacitating		
	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained	Total	Unrestrained	% unrestrained
Miami	4	2	50.0	22	8	36.4	210	26	12.4
Monroe	8	4	50.0	54	16	29.6	995	93	9.3
Montgomery	7	3	42.9	21	6	28.6	271	26	9.6
Morgan	9	5	55.6	33	9	27.3	441	43	9.8
Newton	8	6	75.0	12	4	33.3	70	11	15.7
Noble	6	2	33.3	41	5	12.2	187	17	9.1
Ohio	1	1	100.0	2	1	50.0	27	8	29.6
Orange	3	2	66.7	13	6	46.2	138	22	15.9
Owen	9	4	44.4	12	6	50.0	147	25	17.0
Parke	5	2	40.0	10	5	50.0	104	13	12.5
Perry	1	1	100.0	4	2	50.0	114	14	12.3
Pike	3	1	33.3	6	3	50.0	43	6	14.0
Porter	25	13	52.0	93	35	37.6	1,329	152	11.4
Posey	3	1	33.3	9	2	22.2	108	9	8.3
Pulaski	2	2	100.0	16	6	37.5	95	14	14.7
Putnam	8	2	25.0	18	5	27.8	138	21	15.2
Randolph	2	2	100.0	15	5	33.3	91	14	15.4
Ripley	3	0	0.0	11	4	36.4	174	21	12.1
Rush	4	1	25.0	12	5	41.7	128	14	10.9
St. Joseph	21	7	33.3	112	30	26.8	1,850	144	7.8
Scott	6	1	16.7	18	4	22.2	249	40	16.1
Shelby	6	4	66.7	31	14	45.2	364	39	10.7
Spencer	8	5	62.5	20	7	35.0	141	26	18.4
Starke	7	4	57.1	14	7	50.0	150	25	16.7
Steuben	8	5	62.5	16	9	56.3	220	25	11.4
Sullivan	5	4	80.0	13	6	46.2	106	15	14.2
Switzerland	3	3	100.0	5	1	20.0	43	7	16.3
Tippecanoe	16	4	25.0	54	18	33.3	1,195	116	9.7
Tipton	3	1	33.3	13	4	30.8	95	18	18.9
Union	1	0	0.0	2	0	0.0	34	0	0.0
Vanderburgh	13	5	38.5	62	19	30.6	1,392	122	8.8
Vermillion	5	4	80.0	13	9	69.2	91	9	9.9
Vigo	14	6	42.9	63	17	27.0	914	83	9.1
Wabash	5	3	60.0	16	4	25.0	206	23	11.2
Warren	4	1	25.0	4	0	0.0	49	11	22.4
Warrick	9	5	55.6	13	3	23.1	235	42	17.9
Washington	6	3	50.0	18	10	55.6	165	28	17.0
Wayne	6	4	66.7	40	14	35.0	549	96	17.5
Wells	2	0	0.0	8	3	37.5	135	18	13.3
White	2	1	50.0	14	3	21.4	165	29	17.6
Whitley	7	4	57.1	15	6	40.0	157	29	18.5

**Notes:**

*Non-incapacitating* collision severity includes collisions with *non-incapacitating* and *possible* injuries. Includes only vehicle occupants (*drivers and passengers*). *Pedestrians* and *pedalcyclists* are excluded.

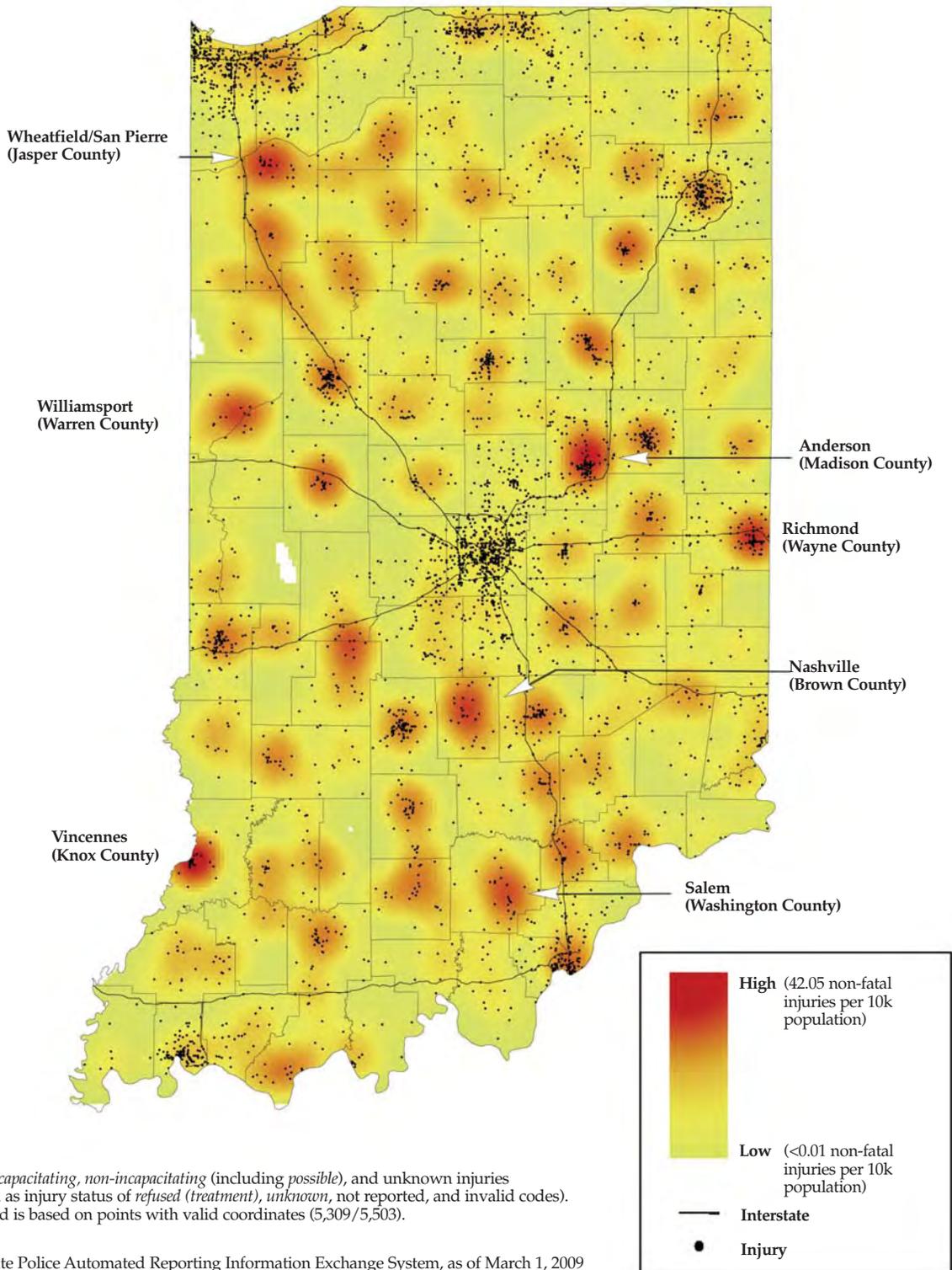
**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009



- In 2008, Madison, Wayne, Brown, Knox, Jasper, Washington, and Warren counties were among counties with the highest concentrations of collision-related non-fatal injuries where the victim was not restrained per 10,000 of the county population.

Map 9. Concentration of non-fatal injuries in Indiana collisions where victim was unrestrained per 10,000 county population, 2008

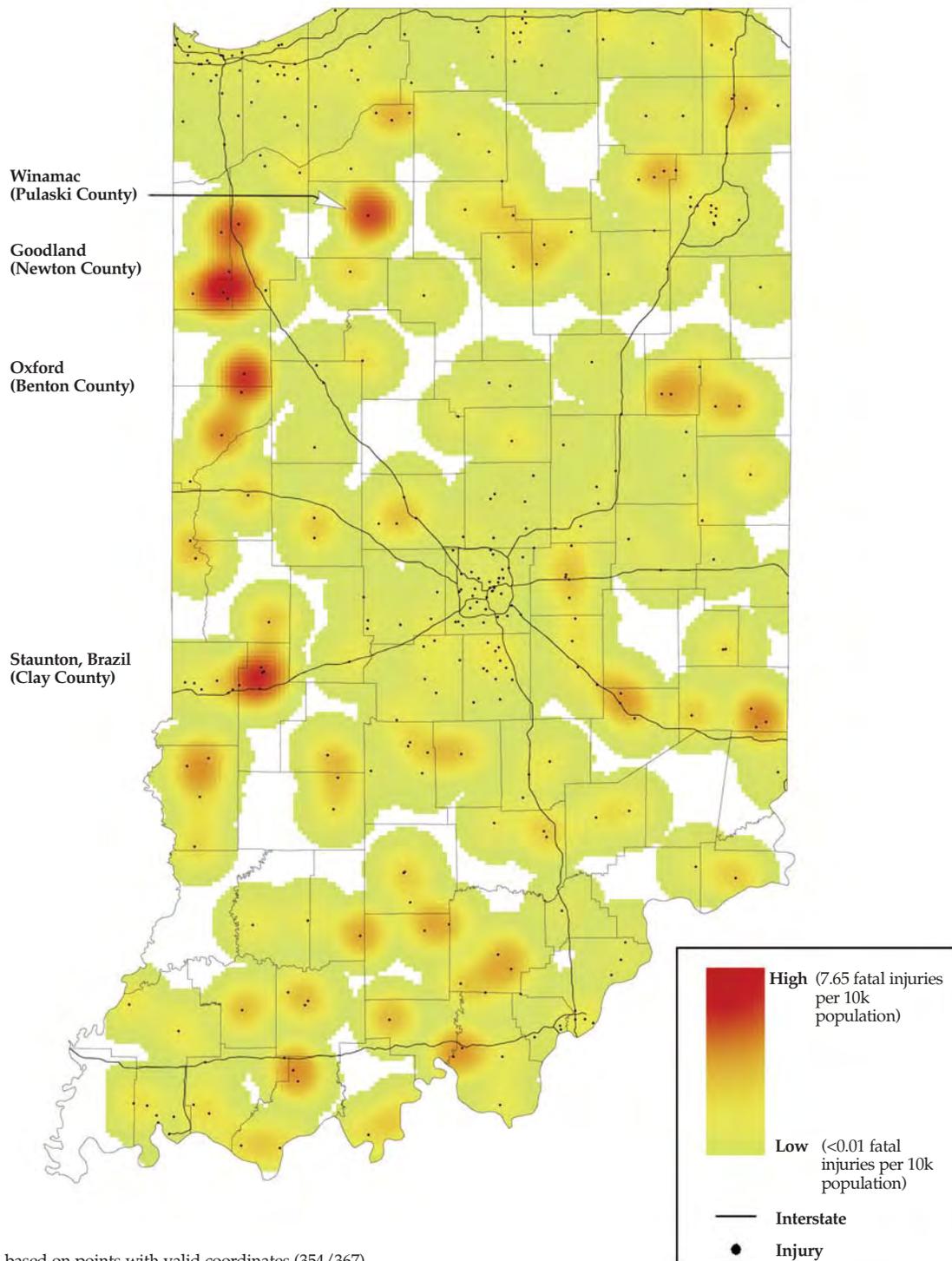


**Notes:**  
 Includes *incapacitating, non-incapacitating* (including *possible*), and unknown injuries (defined as injury status of *refused (treatment), unknown, not reported, and invalid codes*). Density grid is based on points with valid coordinates (5,309/5,503).

**Sources:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Stats Indiana, Population Estimates for Indiana Counties, 2008.

► In 2008, Newton, Clay, Benton, and Pulaski counties were among counties with the highest concentrations of collision-related fatal injuries where the victim was not restrained per 10,000 of the county population.

Map 10. Concentration of fatal injuries in Indiana collisions where victim was unrestrained per 10,000 county population, 2008



**Note:**  
Density grid is based on points with valid coordinates (354/367).

**Sources:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Stats Indiana, Population Estimates for Indiana Counties, 2008.

- On average, young drivers represented 10.1 percent of county fatal injuries.
- All counties reported collision-related fatalities but only 50 reported young driver fatalities.

**Table 95. Young drivers (ages 15 to 20) involved in Indiana collisions, by injury severity and county, 2008**

	Total		Fatal		Personal injury		Other injury status	
	Count	% of all county injury statuses	Count	% of county fatal injuries	Count	% of county personal injuries	Count	% of county other injury statuses
<b>All counties</b>	<b>50,928</b>	<b>na</b>	<b>75</b>	<b>na</b>	<b>5,659</b>	<b>na</b>	<b>45,194</b>	<b>na</b>
Mean	553.6	17.4%	0.8	10.1%	61.5	13.9%	491.2	18.2%
Minimum	35	12.3%	0	0.0%	4	8.8%	29	12.9%
Maximum	5,985	24.2%	6	50.0%	637	23.5%	5,342	28.5%
Adams	228	19.4%	0	0.0%	27	15.5%	201	20.2%
Allen	3,186	16.3%	4	18.2%	341	11.8%	2,841	17.1%
Bartholomew	677	16.4%	0	0.0%	100	12.9%	577	17.3%
Benton	40	15.7%	0	0.0%	6	12.8%	34	16.6%
Blackford	94	18.4%	0	0.0%	12	19.7%	82	18.3%
Boone	475	17.7%	1	10.0%	46	13.3%	428	18.4%
Brown	118	15.7%	0	0.0%	20	11.7%	98	16.9%
Carroll	150	17.8%	0	0.0%	18	15.0%	132	18.5%
Cass	297	14.3%	0	0.0%	36	12.4%	261	14.7%
Clark	930	13.1%	1	8.3%	119	11.0%	810	13.5%
Clay	206	18.5%	0	0.0%	23	14.1%	183	19.4%
Clinton	224	17.6%	1	10.0%	29	13.5%	194	18.5%
Crawford	77	19.3%	0	0.0%	10	15.4%	67	20.3%
Daviess	119	19.2%	0	0.0%	28	17.2%	91	20.4%
Dearborn	504	16.3%	1	33.3%	69	14.7%	434	16.6%
Decatur	238	18.0%	1	14.3%	29	16.4%	208	18.2%
DeKalb	341	15.8%	0	0.0%	39	14.3%	302	16.1%
Delaware	1,262	18.0%	1	14.3%	133	13.0%	1,128	18.9%
Dubois	318	22.1%	1	20.0%	45	16.7%	272	23.3%
Elkhart	1,589	14.9%	3	10.7%	123	9.5%	1,463	15.7%
Fayette	156	17.9%	0	0.0%	24	16.7%	132	18.2%
Floyd	718	16.5%	1	9.1%	82	11.8%	635	17.4%
Fountain	118	18.4%	0	0.0%	17	21.5%	101	18.0%
Franklin	190	23.7%	0	0.0%	25	15.7%	165	25.9%
Fulton	128	15.1%	0	0.0%	16	12.0%	112	15.7%
Gibson	254	15.9%	2	40.0%	30	11.9%	222	16.6%
Grant	623	17.2%	2	33.3%	72	14.0%	549	17.7%
Greene	223	19.2%	0	0.0%	32	15.4%	191	20.1%
Hamilton	1,920	16.5%	2	14.3%	161	12.0%	1,757	17.1%
Hancock	513	18.8%	1	12.5%	78	15.8%	434	19.5%
Harrison	316	18.5%	1	14.3%	32	12.6%	283	19.6%
Hendricks	1,147	18.0%	1	7.1%	107	12.3%	1,039	18.9%
Henry	305	16.6%	1	12.5%	39	11.1%	265	17.9%
Howard	788	18.1%	0	0.0%	89	12.0%	699	19.3%
Huntington	301	17.5%	1	25.0%	36	14.7%	264	17.9%
Jackson	336	16.1%	3	50.0%	47	14.4%	286	16.3%
Jasper	320	16.2%	3	42.9%	52	16.1%	265	16.1%
Jay	188	18.5%	0	0.0%	21	13.2%	167	19.6%
Jefferson	260	16.8%	1	33.3%	31	12.2%	228	17.7%
Jennings	279	20.2%	1	11.1%	27	12.8%	251	21.6%
Johnson	1,028	18.8%	2	13.3%	126	13.8%	900	19.8%
Knox	327	20.4%	0	0.0%	47	14.8%	280	21.8%
Kosciusko	680	16.8%	1	14.3%	58	11.6%	621	17.5%
LaGrange	214	16.6%	2	33.3%	16	9.4%	196	17.7%
Lake	3,831	12.5%	1	1.9%	352	8.8%	3,478	13.1%
LaPorte	792	14.4%	1	4.5%	111	12.0%	680	14.9%
Lawrence	397	20.6%	1	12.5%	45	12.4%	351	22.6%
Madison	1,037	14.8%	0	0.0%	131	11.2%	906	15.6%

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Table 95. (continued)

	Total		Fatal		Personal injury		Other injury status	
	Count	% of all county injury statuses	Count	% of county fatal injuries	Count	% of county personal injuries	Count	% of county other injury statuses
Marion	5,985	12.3%	6	6.6%	637	8.8%	5,342	12.9%
Marshall	378	16.7%	1	14.3%	47	14.4%	330	17.0%
Martin	59	17.2%	1	50.0%	11	16.4%	47	17.1%
Miami	262	17.1%	0	0.0%	39	16.5%	223	17.3%
Monroe	1,389	19.9%	1	9.1%	136	12.1%	1,252	21.4%
Montgomery	320	18.8%	0	0.0%	43	14.2%	277	19.8%
Morgan	507	18.9%	1	11.1%	67	13.8%	439	20.0%
Newton	87	16.0%	0	0.0%	14	16.7%	73	16.2%
Noble	326	17.2%	0	0.0%	31	13.1%	295	17.9%
Ohio	52	17.7%	0	0.0%	4	13.8%	48	18.3%
Orange	163	17.3%	0	0.0%	21	13.7%	142	18.0%
Owen	144	16.5%	1	11.1%	20	12.3%	123	17.5%
Parke	156	18.0%	0	0.0%	18	15.5%	138	18.5%
Perry	132	18.0%	0	0.0%	21	17.1%	111	18.2%
Pike	51	24.2%	0	0.0%	6	12.0%	45	28.5%
Porter	1,222	14.3%	2	7.4%	139	9.4%	1,081	15.3%
Posey	141	17.6%	0	0.0%	11	9.5%	130	19.1%
Pulaski	132	18.8%	1	50.0%	19	16.8%	112	19.0%
Putnam	168	15.8%	1	12.5%	19	11.9%	148	16.5%
Randolph	142	18.5%	0	0.0%	23	20.4%	119	18.2%
Ripley	203	17.7%	0	0.0%	28	14.9%	175	18.3%
Rush	116	19.5%	1	25.0%	22	14.7%	93	21.1%
Saint Joseph	1,834	13.7%	1	3.8%	202	9.7%	1,631	14.5%
Scott	182	16.7%	0	0.0%	35	13.0%	147	18.1%
Shelby	347	17.1%	1	16.7%	56	13.5%	290	18.0%
Spencer	174	19.4%	1	12.5%	31	19.0%	142	19.5%
Starke	174	15.1%	0	0.0%	19	11.4%	155	15.8%
Steuben	332	14.9%	0	0.0%	32	13.3%	300	15.1%
Sullivan	83	17.3%	1	20.0%	16	13.2%	66	18.7%
Switzerland	48	19.6%	0	0.0%	7	14.0%	41	21.4%
Tippecanoe	2,134	18.1%	3	17.6%	149	11.1%	1,982	19.1%
Tipton	89	14.8%	0	0.0%	13	12.0%	76	15.5%
Union	35	16.5%	0	0.0%	6	15.8%	29	16.8%
Vanderburgh	1,748	15.9%	2	13.3%	156	10.2%	1,590	16.8%
Vermillion	81	13.5%	0	0.0%	18	16.2%	63	13.0%
Vigo	990	16.4%	2	11.8%	117	11.2%	871	17.6%
Wabash	288	19.2%	2	40.0%	37	15.7%	249	19.7%
Warren	80	22.5%	0	0.0%	12	22.2%	68	22.9%
Warrick	425	18.3%	1	9.1%	32	12.4%	392	19.1%
Washington	203	20.3%	0	0.0%	37	19.8%	166	20.6%
Wayne	409	14.0%	1	16.7%	70	11.2%	338	14.8%
Wells	228	22.6%	0	0.0%	35	23.5%	193	22.5%
White	217	15.3%	1	33.3%	20	10.9%	196	16.0%
Whitley	230	18.5%	1	12.5%	26	14.8%	203	19.1%

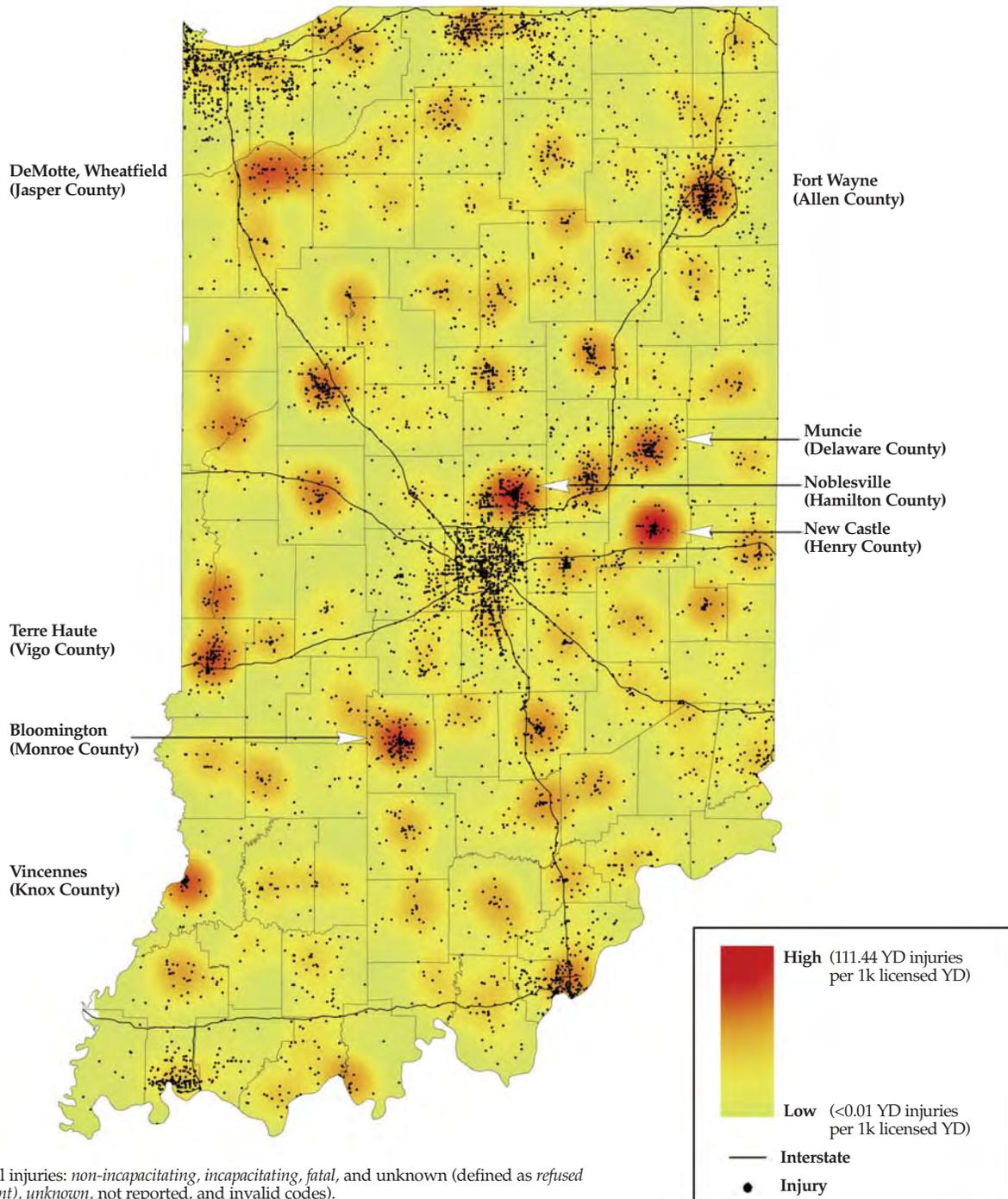
**Notes:**  
 Excludes persons with invalid age.  
 Excludes records where county is unknown.  
 Personal injury includes incapacitating, non-incapacitating, and possible injury collisions.

**Source:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009



➤ In 2008, Henry, Hamilton, Delaware, Allen, Monroe, Vigo, Jasper, and Knox counties were among counties with the highest concentrations of collision-related young driver injuries per 1,000 county licensed young drivers.

Map 12. Concentrations of young driver (ages 15 to 20) injuries in Indiana collisions per 1,000 county licensed young drivers, 2008



**Notes:**  
Includes all injuries: *non-incapacitating, incapacitating, fatal*, and unknown (defined as *refused (treatment), unknown, not reported, and invalid codes*).  
Density grid is based on points with valid coordinates (6,446/6,750).

**Sources:**  
Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
Indiana Bureau of Motor Vehicles, 2008 licensed driver data

- On average, 16.5 percent of fatal collisions in counties involved at least one motorcycle or moped.
- On average, 9.3 percent of personal injury collisions in counties involved at least one motorcycle or moped.

**Table 96. Indiana collisions involving motorcycles, by severity and county, 2008**

	Total		Fatal		Personal injury		Other injury status	
	Count	% of all county collisions	Count	% of county fatal injuries	Count	% of county personal injury collisions	Count	% of county other injury status collisions
<b>All counties</b>	<b>3,822</b>	<b>na</b>	<b>125</b>	<b>na</b>	<b>2,646</b>	<b>na</b>	<b>1,051</b>	<b>na</b>
Mean	42	2.2%	1.4	16.5%	28.8	9.3%	11.4	0.7%
Minimum	1	0.8%	0	0.0%	1	3.1%	0	0.0%
Maximum	406	7.0%	20	100.0%	261	30.8%	125	2.6%
Adams	24	3.0%	2	66.7%	13	11.4%	9	1.3%
Allen	210	1.7%	4	20.0%	154	7.2%	52	0.5%
Bartholomew	49	2.0%	1	10.0%	40	7.1%	8	0.4%
Benton	3	1.6%	0	0.0%	1	3.1%	2	1.3%
Blackford	9	2.4%	2	100.0%	3	6.0%	4	1.2%
Boone	24	1.3%	0	0.0%	15	6.4%	9	0.6%
Brown	40	7.0%	2	66.7%	35	26.5%	3	0.7%
Carroll	11	1.7%	0	0.0%	8	9.6%	3	0.5%
Cass	31	2.1%	0	0.0%	24	11.7%	7	0.6%
Clark	80	1.8%	1	8.3%	56	7.1%	23	0.6%
Clay	8	1.0%	1	25.0%	4	3.4%	3	0.5%
Clinton	13	1.5%	0	0.0%	11	7.0%	2	0.3%
Crawford	12	3.7%	1	33.3%	9	16.4%	2	0.8%
Daviess	6	1.5%	2	33.3%	4	3.4%	0	0.0%
Dearborn	33	1.6%	0	0.0%	21	6.5%	12	0.7%
Decatur	19	2.2%	0	0.0%	11	8.7%	8	1.1%
DeKalb	47	3.1%	2	40.0%	30	15.6%	15	1.1%
Delaware	66	1.5%	0	0.0%	47	6.4%	19	0.5%
Dubois	30	3.3%	1	20.0%	24	12.6%	5	0.7%
Elkhart	134	1.9%	7	28.0%	75	7.8%	52	0.9%
Fayette	17	3.0%	0	0.0%	13	11.6%	4	0.9%
Floyd	50	1.9%	3	30.0%	36	7.3%	11	0.5%
Fountain	4	0.8%	0	0.0%	3	4.5%	1	0.2%
Franklin	21	3.6%	2	28.6%	11	9.2%	8	1.8%
Fulton	16	2.5%	0	0.0%	14	16.1%	2	0.4%
Gibson	14	1.3%	1	20.0%	11	6.3%	2	0.2%
Grant	62	2.6%	3	50.0%	42	11.2%	17	0.9%
Greene	19	2.2%	0	0.0%	12	8.4%	7	1.0%
Hamilton	87	1.3%	3	23.1%	58	5.9%	26	0.5%
Hancock	34	2.1%	0	0.0%	29	8.4%	5	0.4%
Harrison	17	1.4%	0	0.0%	10	5.2%	7	0.7%
Hendricks	61	1.6%	6	42.9%	36	5.8%	19	0.6%
Henry	21	1.7%	0	0.0%	14	6.4%	7	0.7%
Howard	65	2.6%	1	11.1%	47	8.6%	17	0.9%
Huntington	31	2.5%	0	0.0%	23	12.7%	8	0.8%
Jackson	32	2.2%	2	33.3%	22	9.4%	8	0.7%
Jasper	16	1.1%	1	20.0%	14	6.5%	1	0.1%
Jay	10	1.4%	0	0.0%	8	6.6%	2	0.3%
Jefferson	37	3.6%	0	0.0%	22	12.4%	15	1.8%
Jennings	18	2.0%	1	11.1%	9	5.9%	8	1.1%
Johnson	71	2.3%	2	16.7%	54	8.3%	15	0.6%
Knox	25	2.4%	0	0.0%	19	8.2%	6	0.7%
Kosciusko	63	2.3%	0	0.0%	40	10.4%	23	1.0%
LaGrange	17	1.7%	1	16.7%	13	10.6%	3	0.3%
Lake	227	1.2%	9	20.9%	139	4.9%	79	0.5%
LaPorte	64	1.8%	4	22.2%	44	6.6%	16	0.5%
Lawrence	48	3.9%	1	14.3%	33	13.1%	14	1.4%
Madison	99	2.2%	3	25.0%	73	8.9%	23	0.6%

*continued on next page*

Table 96. (continued)

	Total		Fatal		Personal injury		Other injury status	
	Count	% of all county collisions	Count	% of county fatal injuries	Count	% of county personal injury collisions	Count	% of county other injury status collisions
Marion	406	1.4%	20	24.1%	261	4.9%	125	0.5%
Marshall	19	1.1%	1	14.3%	12	4.9%	6	0.4%
Martin	15	6.1%	1	50.0%	9	18.4%	5	2.6%
Miami	21	1.8%	1	25.0%	13	7.8%	7	0.7%
Monroe	104	2.4%	3	27.3%	74	8.8%	27	0.8%
Montgomery	25	2.1%	1	14.3%	20	9.2%	4	0.4%
Morgan	42	2.5%	3	37.5%	30	8.2%	9	0.7%
Newton	7	1.7%	0	0.0%	5	7.9%	2	0.6%
Noble	30	2.2%	1	25.0%	15	8.5%	14	1.2%
Ohio	12	4.8%	0	0.0%	8	30.8%	4	1.8%
Orange	14	2.1%	0	0.0%	12	11.5%	2	0.4%
Owen	12	2.0%	3	33.3%	5	4.8%	4	0.8%
Parke	14	2.0%	0	0.0%	10	11.9%	4	0.7%
Perry	19	3.8%	1	100.0%	15	16.3%	3	0.7%
Pike	2	1.3%	0	0.0%	2	5.4%	0	0.0%
Porter	125	2.3%	2	7.4%	95	8.9%	28	0.6%
Posey	10	1.8%	0	0.0%	9	11.0%	1	0.2%
Pulaski	17	2.9%	0	0.0%	13	15.9%	4	0.8%
Putnam	14	1.9%	0	0.0%	12	10.7%	2	0.3%
Randolph	8	1.3%	2	100.0%	3	3.5%	3	0.6%
Ripley	12	1.5%	1	50.0%	8	6.1%	3	0.4%
Rush	8	2.0%	0	0.0%	7	6.3%	1	0.3%
Saint Joseph	121	1.5%	3	14.3%	95	6.1%	23	0.4%
Scott	26	4.3%	1	16.7%	21	12.2%	4	0.9%
Shelby	31	2.3%	1	16.7%	22	7.5%	8	0.8%
Spencer	15	2.3%	0	0.0%	13	11.7%	2	0.4%
Starke	9	1.0%	0	0.0%	8	7.0%	1	0.1%
Steuben	29	1.7%	0	0.0%	24	13.6%	5	0.3%
Sullivan	3	0.9%	0	0.0%	3	3.8%	0	0.0%
Switzerland	8	4.1%	0	0.0%	7	20.0%	1	0.6%
Tippecanoe	134	1.8%	2	15.4%	85	8.4%	47	0.7%
Tipton	7	1.6%	0	0.0%	7	9.0%	0	0.0%
Union	2	1.1%	0	0.0%	1	3.8%	1	0.6%
Vanderburgh	102	1.7%	5	33.3%	72	6.5%	25	0.5%
Vermillion	7	1.6%	0	0.0%	5	6.7%	2	0.6%
Vigo	78	2.1%	0	0.0%	57	7.5%	21	0.7%
Wabash	32	3.0%	0	0.0%	20	11.7%	12	1.4%
Warren	5	1.8%	1	33.3%	3	7.0%	1	0.4%
Warrick	26	1.7%	0	0.0%	17	9.8%	9	0.7%
Washington	24	3.4%	2	28.6%	15	12.3%	7	1.2%
Wayne	69	3.5%	0	0.0%	57	12.5%	12	0.8%
Wells	23	3.3%	0	0.0%	15	13.9%	8	1.4%
White	15	1.6%	0	0.0%	11	9.6%	4	0.5%
Whitley	25	2.9%	1	12.5%	16	13.0%	8	1.1%

**Notes:**

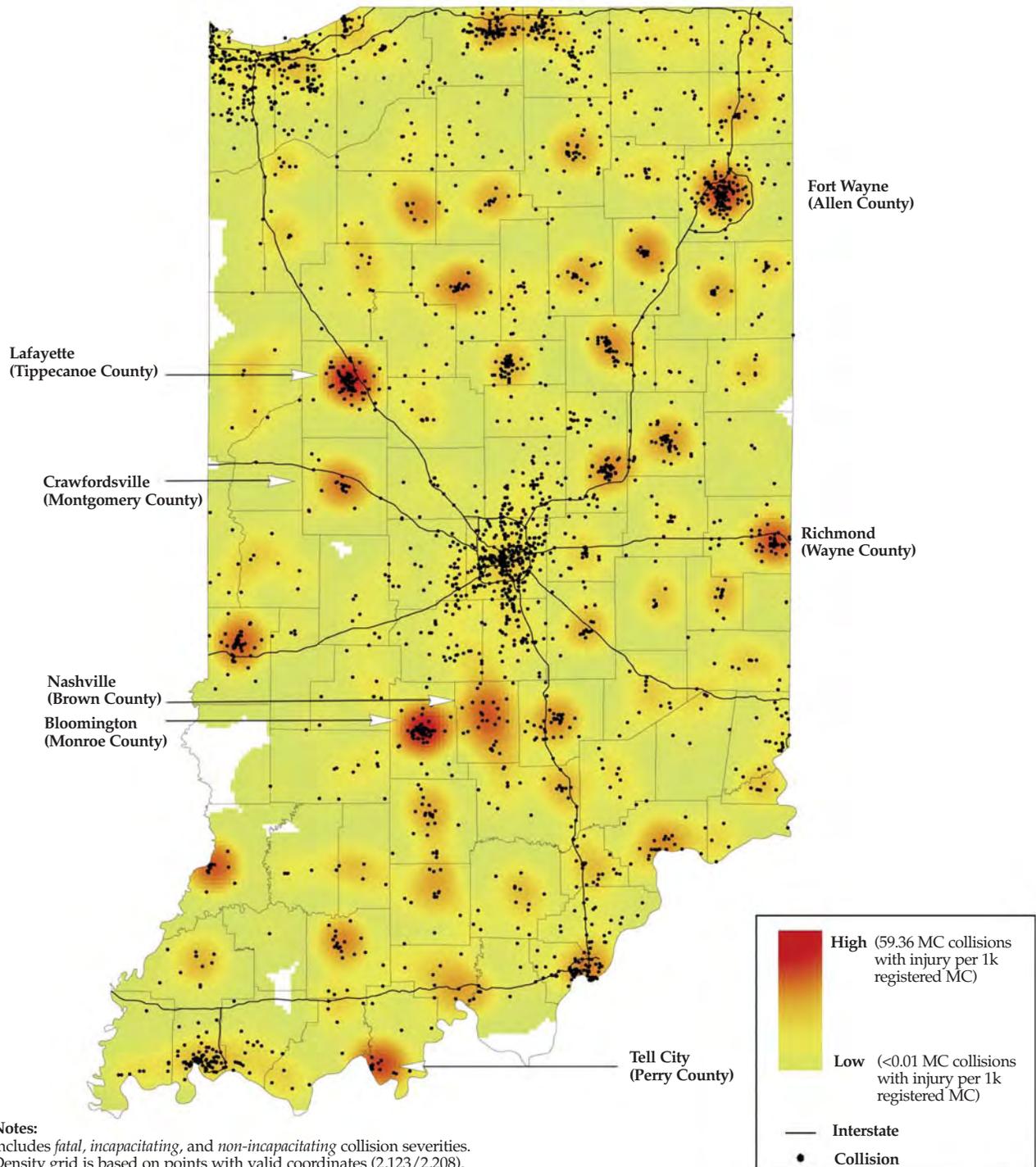
Excludes records where county is unknown.  
 Includes collisions where at least one motorcycle or moped was involved.  
 Personal injury includes incapacitating, non-incapacitating, and possible injury collisions.

**Source:**

Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009

➤ In 2008, Brown, Monroe, Allen, Wayne, Montgomery, Perry, and Tippecanoe counties were among counties with the highest concentrations of motorcycle-involved collisions with injuries per 1,000 county registered motorcycles.

Map 13. Concentrations of motorcycle collisions with injuries in Indiana per 1,000 county registered motorcycles, 2008

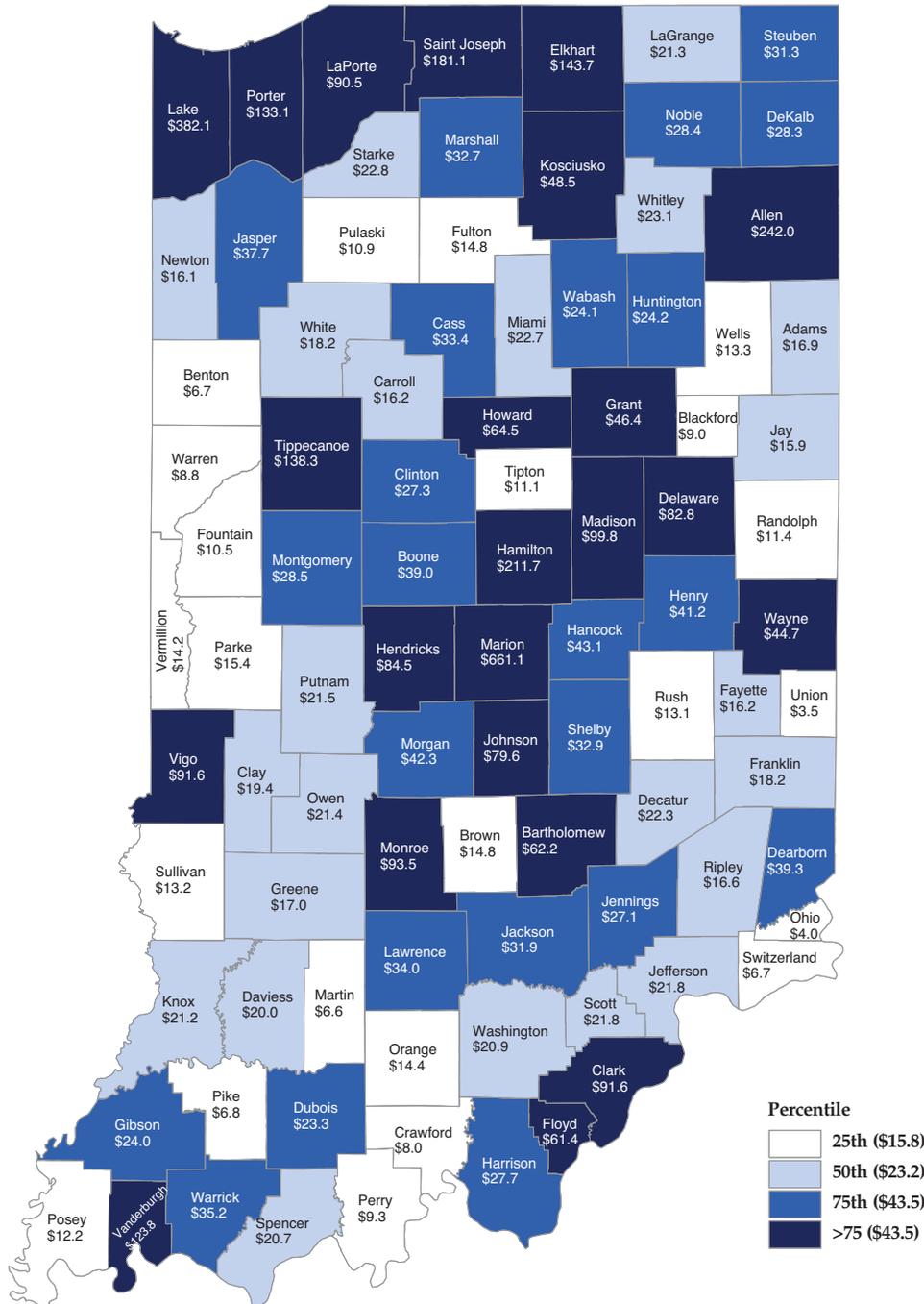


**Notes:**  
 Includes *fatal*, *incapacitating*, and *non-incapacitating* collision severities.  
 Density grid is based on points with valid coordinates (2,123/2,208).

**Sources:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Indiana Bureau of Motor Vehicles, 2008 licensed registered vehicles.

➤ In 2008, Marion, Lake, Allen, Hamilton, and St. Joseph counties ranked as the top five counties with the highest estimated costs associated with collisions. (Note, these counties are expected to be among counties with the highest costs because they have the largest populations).

Map 14. Estimated costs of Indiana collisions (\$ millions), by county, 2008



**Notes:**  
 All costs in 2008 dollars.  
 See Appendix A for discussion of cost calculations.

**Sources:**  
 Indiana State Police Automated Reporting Information Exchange System, as of March 1, 2009  
 Blincoe, L. Seay, A., Zaloshnja, E., Miller, T., Romano, E., Luchter, S., Spicer, R. (2000). *The economic impact of motor vehicle crashes, 2000*. National Highway Traffic Safety Administration, DOT HS 809 446.  
 Bureau of Labor Statistics, <http://www.bls.gov>



# **INDIANA STANDARD CRASH REPORT, KEYWORDS, GLOSSARY, APPENDIX**



# INDIANA OFFICER'S STANDARD CRASH REPORT



## INDIANA OFFICER'S STANDARD CRASH REPORT

State Form: 23558 (Revised 5/03) Stock 302  
 Mail to:  
 Indiana State Police, Crash Records Section  
 100 North Senate Avenue, Indianapolis, IN 46204



001000631

Report  Original  Supplemental Page  of

Local ID

Date of Crash Month   Day   Year	Day of Week	Actual Local Time <input type="radio"/> AM <input type="radio"/> PM	County	Township	# Motor Vehicles	# Injured	# Dead	# Commercial Vehicles	# Deer
Road Crash Occurred On		Nearest/Intersecting Road/Mile Marker/Interchange		If not at an intersection, number of feet from	Direction	Road Class. <input type="radio"/> Interstate <input type="radio"/> County Road <input type="radio"/> US Road <input type="radio"/> Local/City Road <input type="radio"/> State Road <input type="radio"/> Other			
Inside Corporate Limits? <input type="radio"/> Yes <input type="radio"/> No	City/Town or Nearest City/Town		Property? <input type="radio"/> Private <input type="radio"/> Other	<input type="radio"/> D N R	Crash Latitude		Crash Longitude		
Driver #1		Driver #2		Driver #3		Driver #4			

**Fill in only one Primary Cause for the crash**

Fill in up to two ovals per vehicle for Driver Contributing Circumstances				Fill in one oval per vehicle for Vehicle and Environment Contributing Circumstances					
Primary Cause	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4	Primary Cause	Vehicle 1	Vehicle 2	Vehicle 3	Vehicle 4
<b>Driver Contributing Circumstance</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Vehicle Contributing Circumstance</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Alcoholic Beverages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Engine Failure or Defective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Illegal Drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Accelerator or Failure or Defective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Prescription Drugs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Brake Failure or Defective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Driver Asleep or Fatigued	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Tire Failure or Defective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Driver Illness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Headlights(s) Defective or Not On	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Unsafe Speed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Other Lights Defective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Failure to Yield Right of Way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Steering Failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Disregard Signal/Regulatory Sign	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Window/Windshield Defective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Left of Center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Oversize/Overweight Load	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Improper Passing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Insecure/Leaky Load	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Improper Turning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Tow Hitch Failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Improper Lane Usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Other (Explain in Narrative)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Following Too Closely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> None	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Unsafe Backing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<b>Environment Contributing Circumstance</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Overcorrecting/Oversteering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Glare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Ran off Road	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Roadway Surface Condition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Wrong Way on One Way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Holes/Ruts in Surface	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Pedestrian's Action	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Shoulder Defective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Passenger Distraction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Road Under Construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Violation of License Restriction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Severe Crosswinds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Jackknifing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Obstruction Not Marked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Cell Phone Usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Lane Marking Obscured	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Other Telematics in Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> View Obstructed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Driver Distracted (Explain in Narrative)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Animal/Object in Roadway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Speed Too Fast for Weather Conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Traffic Control Inoperative/ Missing/Obscured	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Other (Explain in Narrative)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Utility Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> None	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> Other (Explain in Narrative)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> None	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> None	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Total Estimate of all damage in the Crash:**  
 Under \$1000     \$2501-\$5000     \$10,001-\$25,000     \$50,001-\$100,000  
 \$1001-\$2500     \$5001-\$10,000     \$25,001-\$50,000     Over \$100,000

**Area Information: Fill in one oval per category**

<b>Hit and Run</b> <input type="radio"/> Yes <input type="radio"/> No	<b>Light Condition</b> <input type="radio"/> Daylight <input type="radio"/> Dawn/Dusk <input type="radio"/> Dark (Lighted) <input type="radio"/> Dark (Not Lighted) <input type="radio"/> Unknown	<b>Type of Median</b> <input type="radio"/> Driveable <input type="radio"/> Curbed <input type="radio"/> Barrier Wall <input type="radio"/> None
<b>Locality</b> <input type="radio"/> Rural <input type="radio"/> Urban	<b>Weather Conditions</b> <input type="radio"/> Clear <input type="radio"/> Cloudy <input type="radio"/> Rain <input type="radio"/> Snow <input type="radio"/> Sleet/Hail <input type="radio"/> Freezing Rain <input type="radio"/> Fog/Smoke/Smog <input type="radio"/> Severe Cross Wind <input type="radio"/> Blowing Sand/Soil/Snow	<b>Type of Roadway Junction</b> <input type="radio"/> No Junction Involved <input type="radio"/> Four-Way Intersection <input type="radio"/> T-Intersection <input type="radio"/> Y-Intersection <input type="radio"/> Circle/Roundabout <input type="radio"/> Five Point or More <input type="radio"/> Interchange <input type="radio"/> Ramp
<b>School Zone</b> <input type="radio"/> Yes <input type="radio"/> No	<b>Surface Condition</b> <input type="radio"/> Dry <input type="radio"/> Wet <input type="radio"/> Muddy <input type="radio"/> Snow/Slush <input type="radio"/> Ice <input type="radio"/> Loose Material on Road (Gravel etc.) <input type="radio"/> Water (Standing or Moving)	<b>Road Character</b> <input type="radio"/> Straight/Level <input type="radio"/> Straight/Grade <input type="radio"/> Straight/Hillcrest <input type="radio"/> Curve/Level <input type="radio"/> Curve/Grade <input type="radio"/> Curve/Hillcrest <input type="radio"/> Non-Roadway Crash
<b>Rumble Strips</b> <input type="radio"/> Yes <input type="radio"/> No	<b>Construction</b> <input type="radio"/> Yes* <input type="radio"/> No <input type="radio"/> Back-up	<b>Roadway Surface</b> <input type="radio"/> Asphalt <input type="radio"/> Concrete <input type="radio"/> Gravel <input type="radio"/> Other
<b>Construction Type</b> <input type="radio"/> Lane Closure <input type="radio"/> X-Over/Lane Shift <input type="radio"/> Work on Shoulder <input type="radio"/> Intermittent or Moving Work	<b>Was this crash a result of aggressive driving?</b> <input type="radio"/> Yes <input type="radio"/> No	<b>Traffic Control Devices</b> <input type="radio"/> Officer/Crossing Guard/Flagman <input type="radio"/> Stop Sign <input type="radio"/> RR Crossing Gate/Flagman <input type="radio"/> Yield Sign <input type="radio"/> RR Crossing Flashing Signal <input type="radio"/> Lane Control <input type="radio"/> RR Crossing Sign <input type="radio"/> No Passing Zone <input type="radio"/> Traffic Control Signal <input type="radio"/> Other (Explain in Narrative) <input type="radio"/> Flashing Signal <input type="radio"/> None

\*If Yes

**Other Property Damage (Include Cargo)**

Name of Object (1)	State <input type="radio"/> Yes <input type="radio"/> No	Owner's Name and Address
(2)	State <input type="radio"/> Yes <input type="radio"/> No	Owner's Name and Address

**Traffic Control Device Operational?**  Yes  No

**Witness/Other Participant**

<input type="radio"/> Witness <input type="radio"/> Other Participant	#	(Last Name, First Name, MI)
Address etc.		
Phone #		
Location at Time of Crash		
<input type="radio"/> Witness <input type="radio"/> Other Participant	#	(Last Name, First Name, MI)
Address etc.		
Phone #		
Location at Time of Crash		

**Non-Motorist** (Last Name, First Name, MI)

<b>Non-Motorist</b> <input type="radio"/> Pedestrian <input type="radio"/> Pedalcyclist <input type="radio"/> Other	<b>Apparent Physical Condition</b> <input type="radio"/> Normal <input type="radio"/> Had Been Drinking <input type="radio"/> Handicapped <input type="radio"/> Ill <input type="radio"/> Asleep/Fatigued <input type="radio"/> Drugs/Medication <input type="radio"/> Unknown	<b>Non-Motorist Action</b> <input type="radio"/> On designated non-motorists lane <input type="radio"/> Not in roadway <input type="radio"/> On shoulder <input type="radio"/> On roadway <input type="radio"/> With traffic <input type="radio"/> Against traffic <input type="radio"/> Crossing at intersection <input type="radio"/> Crossing not at intersection
Cited? <input type="radio"/> Yes <input type="radio"/> No	<b>Traffic Control?</b> <input type="radio"/> Yes <input type="radio"/> No	<b>Non-Motorist Action</b> <input type="radio"/> Moving <input type="radio"/> Standing <input type="radio"/> Working <input type="radio"/> Getting in or out of a vehicle <input type="radio"/> Getting off or on a school bus <input type="radio"/> Other (Explain in Narrative)
Direction	<b>If yes, was traffic control operational?</b> <input type="radio"/> Yes <input type="radio"/> No	
Street/Highway		



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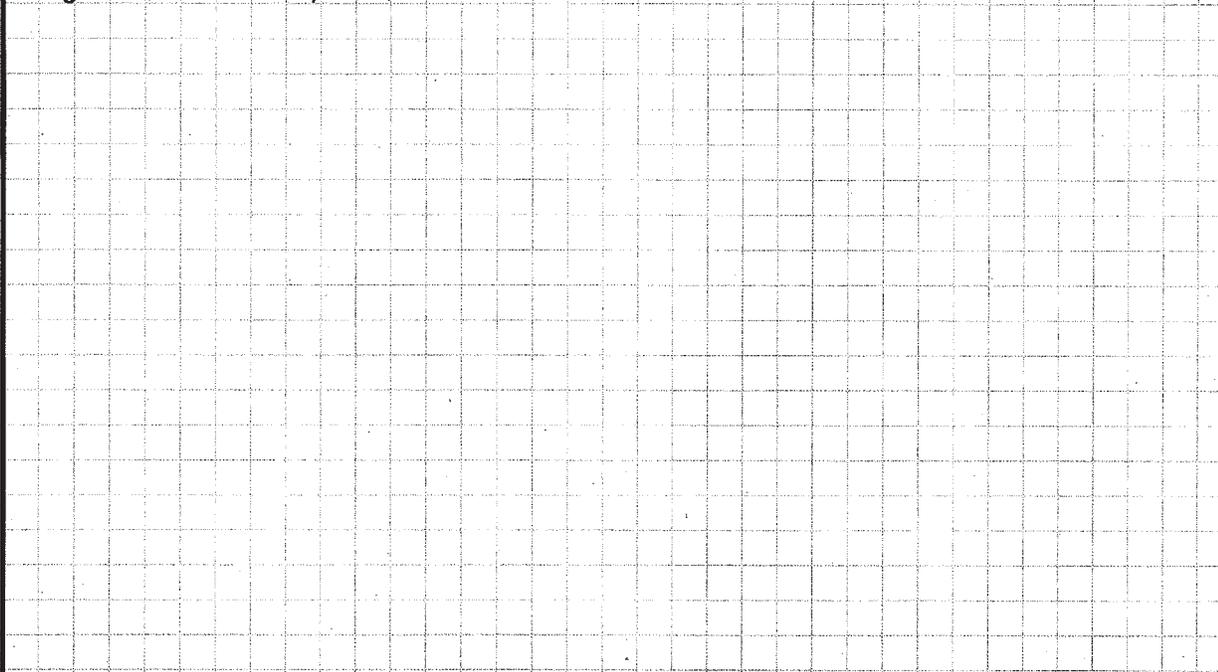
Page  of

**Type of Crash**

- Rear End
- Same Direction Sideswipe
- Right Angle
- Backing Crash
- Head On
- Opposite Direction Sideswipe
- Left Turn
- Other
- Rear to Rear
- Ran off Road
- Right Turn
- Non-Collision



**Diagram: (Indicate North by Arrow)**



**Narrative:**

Multiple horizontal lines for writing the narrative.

Time Notified <input type="radio"/> AM <input type="radio"/> PM	Time Arrived <input type="radio"/> AM <input type="radio"/> PM	Other Location of Investigation	
Assisting Officer	ID No.	Agency	Investigation Complete? <input type="radio"/> Yes <input type="radio"/> No
Assisting Officer	ID No.	Agency	Photos Taken? <input type="radio"/> Yes <input type="radio"/> No
Investigating Officer (printed)	ID No.	Agency	Date of Report
			Reviewing Officer



**NON-DRIVER INJURED INFORMATION**

|||||

Page  of

Local ID

<b>Injured Pre-crash Location:</b> Veh# <input type="text"/> <input type="radio"/> Pedalcyclist <input type="radio"/> Pedestrian <input type="radio"/> Other (Explain in Narrative)		<b>Safety Equipment Used</b> <input type="radio"/> No restraint <input type="radio"/> Lap Belt Only <input type="radio"/> Harness (Only) <input type="radio"/> Lap + Harness <input type="radio"/> Child Restraint <input type="radio"/> Helmet <input type="radio"/> Airbag (No Restraint) <input type="radio"/> Airbag + Belt <input type="radio"/> Unknown	<b>Safety Equipment Effective?</b> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<b>Ejection/Trapped</b> <input type="radio"/> Not Ejected or Trapped <input type="radio"/> Partially Ejected <input type="radio"/> Ejected <input type="radio"/> Trapped In <input type="radio"/> Pinned Under <input type="radio"/> Unknown
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<b>Position in or on Vehicle</b> 		<b>EMS No.</b> <input type="text"/>	<b>Alcohol PBT Results Drug</b> Certified Test <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Pending <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>		

<b>Injured Pre-crash Location:</b> Veh# <input type="text"/> <input type="radio"/> Pedalcyclist <input type="radio"/> Pedestrian <input type="radio"/> Other (Explain in Narrative)		<b>Safety Equipment Used</b> <input type="radio"/> No restraint <input type="radio"/> Lap Belt Only <input type="radio"/> Harness (Only) <input type="radio"/> Lap + Harness <input type="radio"/> Child Restraint <input type="radio"/> Helmet <input type="radio"/> Airbag (No Restraint) <input type="radio"/> Airbag + Belt <input type="radio"/> Unknown	<b>Safety Equipment Effective?</b> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<b>Ejection/Trapped</b> <input type="radio"/> Not Ejected or Trapped <input type="radio"/> Partially Ejected <input type="radio"/> Ejected <input type="radio"/> Trapped In <input type="radio"/> Pinned Under <input type="radio"/> Unknown
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<b>Position in or on Vehicle</b> 		<b>EMS No.</b> <input type="text"/>	<b>Alcohol PBT Results Drug</b> Certified Test <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Pending <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>		

<b>Injured Pre-crash Location:</b> Veh# <input type="text"/> <input type="radio"/> Pedalcyclist <input type="radio"/> Pedestrian <input type="radio"/> Other (Explain in Narrative)		<b>Safety Equipment Used</b> <input type="radio"/> No restraint <input type="radio"/> Lap Belt Only <input type="radio"/> Harness (Only) <input type="radio"/> Lap + Harness <input type="radio"/> Child Restraint <input type="radio"/> Helmet <input type="radio"/> Airbag (No Restraint) <input type="radio"/> Airbag + Belt <input type="radio"/> Unknown	<b>Safety Equipment Effective?</b> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<b>Ejection/Trapped</b> <input type="radio"/> Not Ejected or Trapped <input type="radio"/> Partially Ejected <input type="radio"/> Ejected <input type="radio"/> Trapped In <input type="radio"/> Pinned Under <input type="radio"/> Unknown
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Date of Birth: Month <input type="text"/> Day <input type="text"/> Year <input type="text"/> Age <input type="text"/> Gender <input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unknown	<b>Victim Injury Status</b> <input type="radio"/> Fatal Injury <input type="radio"/> Non-Fatal Injury <input type="radio"/> Incapacitating <input type="radio"/> Non <input type="radio"/> Incapacitating <input type="radio"/> Possible Injury <input type="radio"/> Unknown <input type="radio"/> Refused	<b>Nature of Most Severe Injury</b> <input type="radio"/> Severed <input type="radio"/> Minor Burn <input type="radio"/> Internal <input type="radio"/> Severe Burn <input type="radio"/> Abrasion <input type="radio"/> Minor Bleeding <input type="radio"/> Severe Bleeding (Arterial) <input type="radio"/> Fracture/Dislocation <input type="radio"/> Contusion/Bruise <input type="radio"/> Complaint of Pain <input type="radio"/> None Visible <input type="radio"/> Other (Explain in Narrative)	<b>Location of Most Severe Injury</b> <input type="radio"/> Head <input type="radio"/> Face <input type="radio"/> Eye <input type="radio"/> Neck <input type="radio"/> Chest <input type="radio"/> Back <input type="radio"/> Shoulder/Upper Arm <input type="radio"/> Elbow/Lower Arm <input type="radio"/> Abdomen/Pelvis <input type="radio"/> Hip/Upper Leg <input type="radio"/> Knee/Lower Leg/Foot <input type="radio"/> Entire Body	<b>Test Given</b> <input type="radio"/> None <input type="radio"/> Alcohol <input type="radio"/> Drug <input type="radio"/> Alcohol+Drug <input type="radio"/> Refused	<b>Type Given</b> <input type="radio"/> Blood <input type="radio"/> Urine <input type="radio"/> Breath <input type="radio"/> SFST <input type="radio"/> PBT
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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 Involvement/Alcohol-related

National Highway Traffic Safety Administration (NHTSA) defines a fatal crash as alcohol-related or alcohol-involved if at least one driver or nonoccupant (such as a pedestrian or pedalcyclist) involved in the crash is determined to have had a Blood Alcohol Concentration (BAC) of .01 gram per deciliter (g/dL) or higher. NHTSA defines a nonfatal crash as alcohol-related or alcohol-involved if police indicate on the police accident report that there is evidence of alcohol present. The code does not necessarily mean that a driver or nonoccupant was tested for alcohol.

The term "alcohol-related" or "alcohol-involved" does not indicate that a crash or fatality was caused by the presence of alcohol.

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

### Alcohol-impaired

A collision in which any vehicle driver involved has a BAC test result at or above 0.08 g/dL. Note that this definition is limited to vehicle drivers, whereas the BAC levels of any driver or non-motorist are included in the definition alcohol-related.

### Automated Reporting Information Exchange System (ARIES)

Formerly the Vehicle Crash Reporting System (VCRS). The computer data information system in which all local and state law enforcement officers enter the information from the *Indiana Officer's Standard Crash Report*. This data system provides the data found in this report as well as the *Indiana Traffic Fact Sheets*.

### Blood Alcohol Concentration

The BAC is measured as a percentage by weight of alcohol in the blood (grams/deciliter). A positive BAC level (.01 g/dL and higher) indicates that alcohol was consumed by the person tested; a BAC level of .01 to .07 g/dL indicates that the person was impaired; a BAC level of .08 g/dL or more indicates that the person was intoxicated.

### Bus

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

### Cited/Citation

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

### Combination Vehicle

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

### Commercial Vehicle

- 1) A Truck: A vehicle equipped for carrying property and having a Gross Vehicle Weight Rating (GVWR) or Gross Combination Weight Rating (GCWR) over 10,000 pounds.
- 2) A Bus: A motor vehicle designed to transport 9 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. See also *General Contributing Factors*.

### 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.

### Crash Severity

1. *Fatal Crash*. A police-reported crash involving a motor vehicle in transport on a trafficway in which at least one person dies within 30 days of the crash.
2. *Injury Crash*. A police-reported crash involving a motor vehicle in transport on a trafficway in which no one died but at least one person was reported to have: (1) an incapacitating injury; (2) a visible but not incapacitating injury; (3) a possible, not visible injury; or (4) an injury of unknown severity.
3. *Property Damage Only Crash*. A police-reported crash involving a motor vehicle in transport on a trafficway in which no one involved in the crash suffered any injuries. Indiana statute states the estimated property damage must be \$1000 or more. Note: All collisions reported as property damage collisions, regardless of estimated damage costs, are reported in the 2008 *Indiana Crash Fact Book*.

### 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.

## Glossary, continued

### **Dark-Not lighted**

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

### **Day**

From 6:00a to 5:59p.

### **Disregarding traffic signal**

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

### **Driver**

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

### **Ejection**

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

### **Fatal Injury**

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

### **Fixed /Immoveable Object**

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

### **General Contributing Factor(s)**

The factors which the investigating officer believes to have contributed to the collision's occurrence – one of these may or may not have been the primary factor. Each collision may have two driver contributing factors, one environmental, and one vehicle factor. See also *Contributing Circumstance*.

### **Gross Combination Weight Rating (GCWR)**

The value specified by the manufacturer as the loaded weight of a combination (articulated) motor vehicle. In absence of a value specified by the manufacturer, GCWR will be determined by adding the GVWR of the power unit and the total weight of the towed unit and any load thereon.

### **Gross Vehicle Weight Rating (GVWR)**

The maximum rated capacity of a vehicle, including the weight of the base vehicle, all added equipment, driver and passengers, and all cargo loaded into or on the vehicle. Actual weight may be less than or greater than GVWR.

### **Harmful Event**

The event during a crash for a particular vehicle that is judged to have produced the greatest personal injury or property damage.

### **Hazardous Materials**

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

### **Hazardous Materials Placard**

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

### **ICJI**

Indiana Criminal Justice Institute.

### **Incapacitating Injury**

A non-fatal injury that prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred. Hospitalization is usually required. Examples are severe lacerations, broken limbs, skull fracture, crushed chest, internal injuries, etc.

### **Intersection**

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

### **ISP**

Indiana State Police.

### **Jackknife**

Jackknife can occur at any time during the crash sequence. Jackknifing is generally restricted to truck tractors pulling a trailing unit in which the trailing unit and the pulling vehicle rotate with respect to each other.

### **Junction**

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

### **Lane Control**

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

*Glossary, continued*

**Large Trucks**

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

**Licensed Drivers**

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

**Light Trucks**

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

**Motorcycle**

A two- or three-wheeled motor vehicle designed to transport one or two people. This category can include motor scooters, minibikes, and mopeds, etc.; however, the Indiana reporting system separates the two categories.

**Motor Vehicle in Transport**

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

**Night**

From 6:00p to 5:59a.

**Non-incapacitating Injury**

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

**Nonoccupant/Nonmotorist**

Any person who is not an occupant of a motor vehicle in transport and includes the following: (1) pedestrians; (2) pedalcyclists; (3) occupants of parked motor vehicles; (4) others such as joggers, skateboard riders, people riding on animals, and persons riding in animal-drawn conveyances.

**Not Injured**

Any blank value in the injury status code field of the Indiana Crash Report. These are generally drivers of vehicles involved in property damage only collisions.

**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.

**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.

**Pedalcyclist**

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

**Pedestrian**

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

**Pedestrian Collision**

A collision in which a pedestrian was involved or *pedestrian action* was listed as a contributing factor to the collision.

NOTE: Sometimes a collision had a contributing factor of *pedestrian action* where there was not information regarding a pedestrian individual – these collisions were counted as pedestrian collisions.

**Pickup Truck**

A motor vehicle designed to carry ten persons or less, with an exposed bed.

**Possible Injury**

Any injury reported or claimed which is not visible. Example: the complaint of back or neck pain.

**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.

**Property Damage Only Collision**

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

**Registered Vehicles**

The annual count of registered vehicles in a given location (e.g., county, state, nation).

**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.

**Rural**

Any area outside the incorporated limits of a city.

**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.

## Glossary, continued

### **Semi-trailer**

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

### **Single-unit Truck**

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

### **Speed-related**

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

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

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

### **Tractor (Semi)**

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

### **Traffic Circle/Roundabout**

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

### **Traffic Control Signal**

Includes the red/green/yellow signal and/or a flashing signal.

### **Trapped**

Persons who are restrained in the vehicle by damaged vehicle components as a result of a crash, and who have to be freed from the vehicle.

### **Unit**

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

### **Unknown Injury**

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

### **Urban**

Any area inside the incorporated limits of a city.

### **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 Travelled**

The annual vehicle distance travelled in miles (VMT).

### **Weekday**

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

### **Weekend**

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

### **Work Zone**

An area of a trafficway where construction, maintenance, or utility work activities are identified by warning signs/signals/indicators, including those on transport devices (e.g., signs, flashing lights, channelizing devices, barriers, pavement markings, flagmen, warning signs, and arrow boards mounted on the vehicles in a mobile maintenance activity) that mark the beginning and end of a construction, maintenance, or utility work activity.

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

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

### **Young Driver**

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

## APPENDIX A: Methods for producing economic costs of traffic collisions in Indiana

For the purposes of *Indiana Crash Facts*, economic costs represent the monetary and non-monetary impacts produced by injuries and property damage in traffic collisions. These costs are calculated by taking existing estimates of costs, broken down into various impact categories, by the incidence of traffic injuries and property damage to vehicles in collisions. The general methodology used here follows that in economic cost reports produced by the National Highway Traffic Safety Administration (NHTSA).<sup>1</sup> Several intermediate procedures were performed on the data to arrive at final cost estimates.

### 1. Injury classifications

Cost estimates are based on the *Maximum Abbreviated Injury Scale* (MAIS), a medical assessment of the most severe injury incurred.<sup>2</sup> The MAIS scale ranges from MAIS 0 (no injury), to MAIS 6 (fatality), with incremental levels representing increasing levels of bodily damage (i.e., decreasing probabilities of survival). Indiana crash reports, however, use the KABCO (K=fatal; A=incapacitating; B=non-incapacitating; C=possible; O=not injured) system of injury classification, in which an officer with no medical training can make a general assessment of the injury severity to individuals involved in the collision. As such, Indiana injury data classifications must be converted to the MAIS system to obtain the cost estimates.

Data taken from the National Automotive Sampling System (NASS) from 1982 to 1986 were used to create this injury "translator."<sup>3,4</sup> These data encompass a representative sample of crashes in the United States and provide individual-level information on individuals involved; from it, KABCO injuries can be proportionally distributed into MAIS categories. Data were taken from this time period because it represents the most recent data that contains both KABCO and MAIS designations of injury at the individual level. Note that the injury translator can apportion fatalities (K) to MAIS designations, but the data in *Indiana Crash Facts* does not do this for ease of interpretation.

### 2. Cost estimates and price deflation

Economic cost estimates were obtained from NHTSA economic cost reports.<sup>5</sup> The data are in year 2000 US dollars and accordingly must be adjusted for the effects of the time value of money. Price deflators were obtained from the Bureau of Labor statistics and were applied as follows:

#### a. Medical care and emergency services

Consumer Price Index (CPI) - Medical care (Midwest region). Bureau of Labor Statistics. [http://www.bls.gov/cpi/cpi\\_dr.htm](http://www.bls.gov/cpi/cpi_dr.htm)

#### b. Market productivity, household productivity, travel delay

Productivity Index - Output per hour of all persons, business sector (annual). Bureau of Labor Statistics. [http://www.bls.gov/schedule/archives/prod\\_nr.htm](http://www.bls.gov/schedule/archives/prod_nr.htm)

#### c. Insurance administration, legal costs, property damage

Consumer Price Index - Services less medical care services (Midwest region). Bureau of Labor Statistics. [http://www.bls.gov/cpi/cpi\\_dr.htm](http://www.bls.gov/cpi/cpi_dr.htm)

#### d. Workplace costs

Employment Cost Index - Total compensation, all civilian workers, (Q4, not seasonally adjusted). Bureau of Labor Statistics. <http://www.bls.gov/ect/>. Note that 2000 data were not available for this series; 2001 data used as a proxy.

Once costs were adjusted to current economic conditions, the values were multiplied by the incidence of injuries and vehicles that sustained property damage only (i.e., no injured occupants) to arrive at total cost estimates.

<sup>1</sup>Blincoe, L., Seay, A., Zaloshnja, E., Miller, T., Romano, E., Luchter, S., & R. Spicer. (May 2002). *The economic impact of motor vehicle crashes, 2000*. (DOT HS809 446) National Highway Traffic Safety Administration, Washington D.C.

<sup>2</sup>Association for the Advancement of Automotive Medicine. <http://www.carcrash.org>

<sup>3</sup>[http://www.nhtsa-tsis.net/projects/NHTSA/NHTSA\\_NASS.htm](http://www.nhtsa-tsis.net/projects/NHTSA/NHTSA_NASS.htm)

<sup>4</sup>National Automotive Sampling System, 1982-1986; *Ejection Mitigation Using Advanced Glazing: A Status Report, November 1995*, NHTSA

<sup>5</sup>Blincoe et al. 2002.



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