

# INDIANA 2009 TRAFFIC SAFETY FACTS

June 2009



A collision produces three levels of data: collision, unit (vehicles), and individual. For this reason, readers should pay particular attention to the wording of statements about the data to avoid misinterpretations.

Designing and implementing effective traffic safety policies requires data-driven analysis of traffic accidents. To help in the policy-making process, the Indiana University Center for Criminal Justice Research is collaborating with the Indiana Criminal Justice Institute to analyze 2008 vehicle crash data from the Automated Reporting Information Exchange System (ARIES), maintained by the Indiana State Police. This marks the third year of this partnership. Research findings will be summarized in a series of Fact Sheets on various aspects of traffic collisions, including alcohol-related crashes, light and large trucks, dangerous driving, children, motorcycles, occupant protection, and drivers. An additional publication will provide information on county and municipality data and the final publication will be the annual Indiana Crash Fact Book. These publications serve as the analytical foundation of traffic safety program planning and design in Indiana.

Indiana collision data are obtained from Indiana Crash Reports, as completed by law enforcement officers. As of December 31, 2008, approximately 98 percent of all collisions are entered electronically through the ARIES. Trends in collisions incidence as reported in these publications could incorporate the effects of changes to data elements on the Crash Report, agency-specific enforcement policy changes, re-engineered roadways, driver safety education programs and other unspecified effects. If you have questions regarding trends or unexpected results, please contact the Indiana Criminal Justice Institute, Traffic Safety Division for more information.



## LIGHT TRUCKS<sub>2008</sub>

In the United States in 2007, light trucks represented 40 percent of registered vehicles, vehicles involved in collisions, and vehicles involved in fatal collisions.<sup>1</sup> Approximately one in every 24 registered light trucks in the United States was involved in a collision in 2007, while one in every 4,655 was involved in a fatal collision. In Indiana in 2008, 35 percent (124,038) of all vehicles involved in collisions and 31 percent (353) of vehicles involved in fatal collisions were light trucks. This fact sheet provides an overview of collisions involving light trucks in Indiana in 2008, including rates of light truck involvement, fatal and non-fatal injuries sustained in collisions involving light trucks, restraint use rates and alcohol use among light truck occupants, and county comparisons of rates of light truck involvement in collisions. Because various factors—including changes in travel habits due to rising gasoline prices in 2007, and legislative changes to Indiana's seat belt law in 2007—may have influenced the opportunity for and outcomes of light truck involvement in collisions from 2007 to 2008, many exhibits show changes between 2007 and 2008 as well as average annual changes since 2004. Data are taken from the Indiana State Police Automated Reporting Information Exchange System (ARIES) as of March 1, 2009, and the Indiana Bureau of Motor Vehicles as of February 16, 2008.

### Trends in collisions involving light trucks

Collisions involving light trucks are on the decline. The number of collisions involving light trucks decreased 2.4 percent from 2007 to 2008 and 1.7 percent on average each year since 2004 (Table 1). After increasing 6.8 percent from 2006 to 2007, fatal collisions involv-

**Table 1: Indiana collisions, by light truck involvement and collision severity, 2004-2008**

	2004	2005	2006	2007	2008	% change '07 - '08	Average Annual Change
<b>Light trucks</b>	<b>110,779</b>	<b>110,914</b>	<b>100,345</b>	<b>105,508</b>	<b>102,980</b>	<b>-2.4%</b>	<b>-1.7%</b>
Fatal	404	452	383	409	319	-22.0%	-4.7%
Non-fatal	22,449	21,662	19,759	18,897	17,558	-7.1%	-5.9%
Property damage only	87,926	88,800	80,203	86,202	85,103	-1.3%	-0.6%
<b>No light trucks</b>	<b>97,903</b>	<b>97,445</b>	<b>92,376</b>	<b>99,491</b>	<b>102,301</b>	<b>2.8%</b>	<b>1.2%</b>
Fatal	453	403	434	395	402	1.8%	-2.6%
Non-fatal	20,854	20,099	19,090	18,519	17,769	-4.0%	-3.9%
Property damage only	76,596	76,943	72,852	80,577	84,130	4.4%	2.5%
<b>All</b>	<b>208,682</b>	<b>208,359</b>	<b>192,721</b>	<b>204,999</b>	<b>205,281</b>	<b>0.1%</b>	<b>-0.3%</b>
Fatal	857	855	817	804	721	-10.3%	-4.1%
Non-fatal	43,303	41,761	38,849	37,416	35,327	-5.6%	-5.0%
Property damage only	164,522	165,743	153,055	166,779	169,233	1.5%	0.9%
<b>% Involving light trucks</b>	<b>53.1%</b>	<b>53.2%</b>	<b>52.1%</b>	<b>51.5%</b>	<b>50.2%</b>	<b>--</b>	<b>--</b>
Fatal	47.1%	52.9%	46.9%	50.9%	44.2%	--	--
Non-fatal	51.8%	51.9%	50.9%	50.5%	49.7%	--	--
Property damage only	53.4%	53.6%	52.4%	51.7%	50.3%	--	--

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

Note:

Light trucks defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

Non-fatal injury collisions includes collisions with incapacitating, non-incapacitating, or possible injuries.

**Table 2: Vehicles involved in Indiana collisions, by collision severity and vehicle type, 2004-2008**

Collision severity/ vehicle type	Count of vehicles in collisions					Vehicle registrations (thousands)		Vehicles in collisions per 10,000 registrations		
	2004	2005	2006	2007	2008	2007	2008	2007	2008	'07 - '08 Change
<b>All collisions</b>	<b>366,552</b>	<b>362,726</b>	<b>335,065</b>	<b>356,529</b>	<b>354,443</b>	<b>6,482</b>	<b>6,377</b>	<b>550.0</b>	<b>555.8</b>	<b>5.8</b>
Passenger car	204,857	200,706	186,229	197,106	199,910	3,972	3,945	496.2	506.7	10.5
Light truck	134,092	134,189	121,753	127,761	124,038	1,559	1,490	819.5	832.5	13.0
Large truck	17,795	17,262	14,374	15,033	14,794	682	660	220.4	224.1	3.7
Motorcycle, moped	2,938	2,965	3,163	3,656	3,907	185	200	197.6	195.0	-2.6
Other motor vehicle	6,870	7,604	9,546	12,973	11,794	198	167	653.8	704.6	50.8
<b>Fatal collisions</b>	<b>1,388</b>	<b>1,351</b>	<b>1,282</b>	<b>1,272</b>	<b>1,146</b>	<b>6,482</b>	<b>6,377</b>	<b>2.0</b>	<b>1.8</b>	<b>-0.2</b>
Passenger car	608	539	553	500	508	3,972	3,945	1.3	1.3	< 0.1
Light truck	470	526	449	474	353	1,559	1,490	3.0	2.4	-0.7
Large truck	179	148	141	149	133	682	660	2.2	2.0	-0.2
Motorcycle, moped	105	114	113	121	128	185	200	6.5	6.4	-0.2
Other motor vehicle	26	24	26	28	24	198	167	1.4	1.4	< 0.1
<b>% In fatal collisions</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.3%</b>	--	--	--	--	--
Passenger car	0.3%	0.3%	0.3%	0.3%	0.3%	--	--	--	--	--
Light truck	0.4%	0.4%	0.4%	0.4%	0.3%	--	--	--	--	--
Large truck	1.0%	0.9%	1.0%	1.0%	0.9%	--	--	--	--	--
Motorcycle, moped	3.6%	3.8%	3.6%	3.3%	3.3%	--	--	--	--	--
Other motor vehicle	0.4%	0.3%	0.3%	0.2%	0.2%	--	--	--	--	--

Sources: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2009; Indiana Bureau of Motor Vehicles, as of February 16, 2008.

**Notes:**

*Light trucks* defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

Registration data were not available for light trucks as defined above, and instead includes all vehicles registered as trucks in Indiana.

*Large trucks* defined as units identified as truck (single 2 axle, 6 tires), truck (single 3 or more axles), truck/trailer (not semi), or tractor/one semi trailer.

Other motor vehicles includes pickup trucks weighing more than 10,000 pounds, buses, combination vehicles, farm vehicles, motor home/recreational vehicles, and unknown vehicle types.

Vehicles are categorized as light trucks or large trucks based on several data elements in the crash database. Aside from the general vehicle type code, these elements are not available in registration data; for analytical purposes light trucks were assigned the registration type Truck and large trucks the type Trailer. Due to changes in vehicle type classifications in registration data, registrations and involvement rates are only shown for 2007 and 2008.

ing light trucks decreased 22 percent (409 to 319) in 2008—over ten percentage points more than the 2007 to 2008 decrease in fatal collisions in general (-10.3 percent). Similarly, the proportion of fatal collisions involving light trucks decreased six percentage points, to 44 percent in 2008.

Although the number of truck registrations decreased 4.4 percent (not shown) from 2007 to 2008, the number of light trucks involved in collisions decreased only 2.9 percent resulting in a 1.6 percent increase in the rate of light truck involvement in collisions per 10,000 registered trucks—from 819.5 in 2007 to

832.5 in 2008 (Table 2). Conversely, the number of light trucks involved in fatal collisions decreased 25.5 percent (not shown) from 2007 to 2008, lowering the rate of light trucks involved in fatal collisions per 10,000 registered trucks from 3.0 in 2007 to 2.4 in 2008.

As the number of collisions involving light trucks has declined, so have injuries to persons in collisions involving light trucks. In 2008, there were 25,468 fatal, incapacitating, and non-incapacitating injuries in collisions involving light trucks, nearly 60 percent (15,213) of which were suffered by persons in light trucks (Table 3). Overall, injuries decreased 9.6 percent in 2008. While all fatalities in collisions involving light trucks decreased 22.9 percent from 2007 to 2008, fatalities of occu-

**Table 3: Injuries in Indiana collisions involving light trucks, 2004-2008**

	2004	2005	2006	2007	2008	% change '07 - '08	Average Annual Change
<b>Persons in light trucks</b>	<b>20,457</b>	<b>20,090</b>	<b>18,011</b>	<b>16,965</b>	<b>15,213</b>	<b>-10.3%</b>	<b>-7.1%</b>
Fatalities	278	335	266	297	192	-35.4%	-5.9%
Incapacitating	1,251	1,224	1,084	1,019	955	-6.3%	-6.5%
Non-incapacitating	18,928	18,531	16,661	15,649	14,066	-10.1%	-7.1%
<b>Persons not in light trucks</b>	<b>13,143</b>	<b>12,552</b>	<b>11,654</b>	<b>11,207</b>	<b>10,255</b>	<b>-8.5%</b>	<b>-6.0%</b>
Fatalities	168	161	160	166	165	-0.6%	-0.4%
Incapacitating	764	740	767	729	698	-4.3%	-2.2%
Non-incapacitating	12,211	11,651	10,727	10,312	9,392	-8.9%	-6.3%
<b>TOTAL</b>	<b>33,600</b>	<b>32,642</b>	<b>29,665</b>	<b>28,172</b>	<b>25,468</b>	<b>-9.6%</b>	<b>-6.7%</b>
Fatalities	446	496	426	463	357	-22.9%	-4.3%
Incapacitating	2,015	1,964	1,851	1,748	1,653	-5.4%	-4.8%
Non-incapacitating	31,139	30,182	27,388	25,961	23,458	-9.6%	-6.8%
<b>% injuries in light trucks</b>	<b>60.9%</b>	<b>61.5%</b>	<b>60.7%</b>	<b>60.2%</b>	<b>59.7%</b>	--	--
Fatal	62.3%	67.5%	62.4%	64.1%	53.8%	--	--
Incapacitating	62.1%	62.3%	58.6%	58.3%	57.8%	--	--
Non-incapacitating	60.8%	61.4%	60.8%	60.3%	60.0%	--	--

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

**Notes:**

*Light trucks* defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

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

*Persons not in light trucks* includes other vehicle occupants and non-motorists.

**Table 4: Indiana collisions involving light trucks by locality and collision type, 2004-2008**

	2004	2005	2006	2007	2008	% change '07 - '08	Average Annual Change
<b>All collisions involving light trucks</b>	<b>110,779</b>	<b>110,914</b>	<b>100,345</b>	<b>105,508</b>	<b>102,980</b>	<b>-2.4%</b>	<b>-1.7%</b>
<b>Urban</b>	<b>68,816</b>	<b>68,162</b>	<b>62,041</b>	<b>70,147</b>	<b>68,036</b>	<b>-3.0%</b>	<b>0.0%</b>
Fatal	116	120	105	114	100	-12.3%	-3.2%
Non-fatal	13,435	12,792	11,751	12,229	11,235	-8.1%	-4.2%
Property damage only	55,265	55,250	50,185	57,804	56,701	-1.9%	1.0%
<b>Rural</b>	<b>41,823</b>	<b>42,588</b>	<b>38,172</b>	<b>35,197</b>	<b>34,827</b>	<b>-1.1%</b>	<b>-4.3%</b>
Fatal	288	332	278	295	219	-25.8%	-5.2%
Non-fatal	8,996	8,850	7,990	6,653	6,314	-5.1%	-8.3%
Property damage only	32,539	33,406	29,904	28,249	28,294	0.2%	-3.3%
<b>Unknown locality</b>	<b>140</b>	<b>164</b>	<b>132</b>	<b>164</b>	<b>117</b>	<b>-28.7%</b>	<b>-1.7%</b>
Fatal	0	0	0	0	0	n/a	n/a
Non-fatal	18	20	18	15	9	-40.0%	-13.9%
Property damage only	122	144	114	149	108	-27.5%	0.1%
<b>Single-vehicle collisions</b>	<b>24,376</b>	<b>25,300</b>	<b>22,911</b>	<b>24,962</b>	<b>25,749</b>	<b>3.2%</b>	<b>1.6%</b>
Fatal	152	186	154	169	128	-24.3%	-2.3%
Non-fatal	4,698	4,844	4,417	4,767	4,698	-1.4%	0.2%
Property damage only	19,526	20,270	18,340	20,026	20,923	4.5%	2.0%
<b>Multiple-vehicle collisions</b>	<b>86,403</b>	<b>85,614</b>	<b>77,434</b>	<b>80,546</b>	<b>77,231</b>	<b>-4.1%</b>	<b>-2.6%</b>
Fatal	252	266	229	240	191	-20.4%	-6.0%
Non-fatal	17,751	16,818	15,342	14,130	12,860	-9.0%	-7.7%
Property damage only	68,400	68,530	61,863	66,176	64,180	-3.0%	-1.4%

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

**Notes:**

Light trucks defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

Urban collisions are those that occurred within the incorporated limits of the city identified on the collision report.

Rural collisions are those that occurred outside incorporated limits.

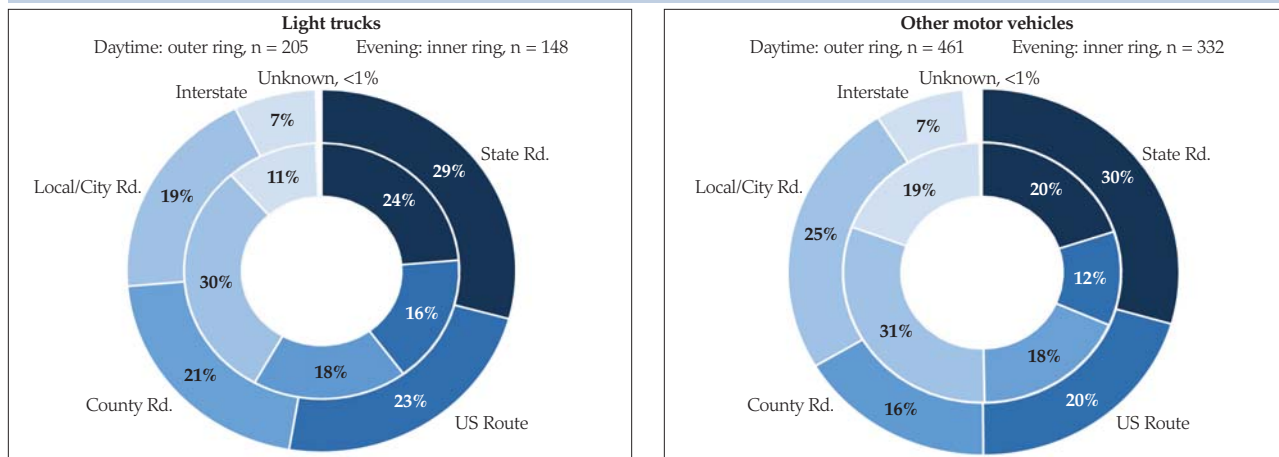
Non-incapacitating includes collisions with non-incapacitating and possible injuries.

pants in light trucks dropped 35.4 percent. Though not empirically tested, a combination of factors—including an overall reduction in collisions and implementation of a more comprehensive seat belt law targeting previously exempt vehicles such as pickup trucks and sport utility vehicles (SUVs) registered as trucks—likely contributed to these reductions.

Collisions involving light trucks generally occur in urban locales. In 2008, approximately 66 percent of collisions involving light trucks occurred in urban areas. Collisions involving light trucks in urban areas decreased 3 percent from 2007 to 2008 and 1.1 percent in rural areas, while fatal collisions involving light trucks decreased by 12.3 and 25.8 percent, respectively, in urban and rural areas (Table 4). On average each year since 2004, the number of collisions involving light trucks in urban areas have not increased or decreased while those in rural areas have decreased 4.3 percent on average each year. Multiple-vehicle collisions involving light trucks decreased 4.1 percent from 2007 to 2008 while single-vehicle collisions increased 3.2 percent. Fatal single-vehicle and multiple-vehicle collisions involving light trucks decreased by 24.3 and 20.4 percent, respectively, from 2007 to 2008.

Collisions involving light trucks tend to occur on state roads during daytime hours (6am – 5:59pm) and on local/city roads in the evening (6pm – 5:59am). Approximately 29 percent of collisions involving light trucks during daytime hours occurred on state roads, and 30 percent on local/city roads during evening hours (Figure 1). Compared to collisions involving other motor vehicles,

**Figure 1: Light trucks and other motor vehicles involved in fatal collisions in Indiana, by time of day and road class, 2008**



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

**Notes:**

Light trucks defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

Other motor vehicles includes pickup trucks weighing more than 10,000 pounds, motorcycles, mopeds, buses, combination vehicles, farm vehicles, motor home/recreational vehicles, and unknown vehicle types.

Daytime is 6am - 5:59pm.

Evening is 6pm - 5:59am.

collisions involving light trucks are more likely on county roads in the daytime (21 percent versus 16 percent) and less likely on interstates in the evening (11 percent versus 19 percent).

**Safety equipment use**

On July 1, 2007, Indiana Public Law 214 became effective, requiring all occupants of pickup trucks and SUVs and vans registered as trucks to wear safety belts. Since then, the rate of restraint use among light truck occupants involved in collisions has increased sharply, while the injury rate for light truck occupants involved in collisions has gone down (Figure 2).

Specifically, comparing monthly restraint use rates for the first six months of 2008 (after P.L. 214 enactment) with the first six months of 2007 (before P.L. 214 enactment), restraint use rates increased each month and on average 4.9 percentage points. During the same period, injury rates—with the exception of February 2008—decreased on average 13.6 points. It should be noted that a pre/post study of the impact of P.L. 214 has not been conducted, so other factors might be influencing restraint use and injury rates among light truck occupants.

Table 5 shows restraint use rates for 2007 and 2008 for different types of collisions, occupants, and injury outcomes. Among light trucks, pickup trucks experienced the largest increase in restraint use rates. In all collisions, restraint use rates among pickup truck occupants increased 5.5 percentage points from

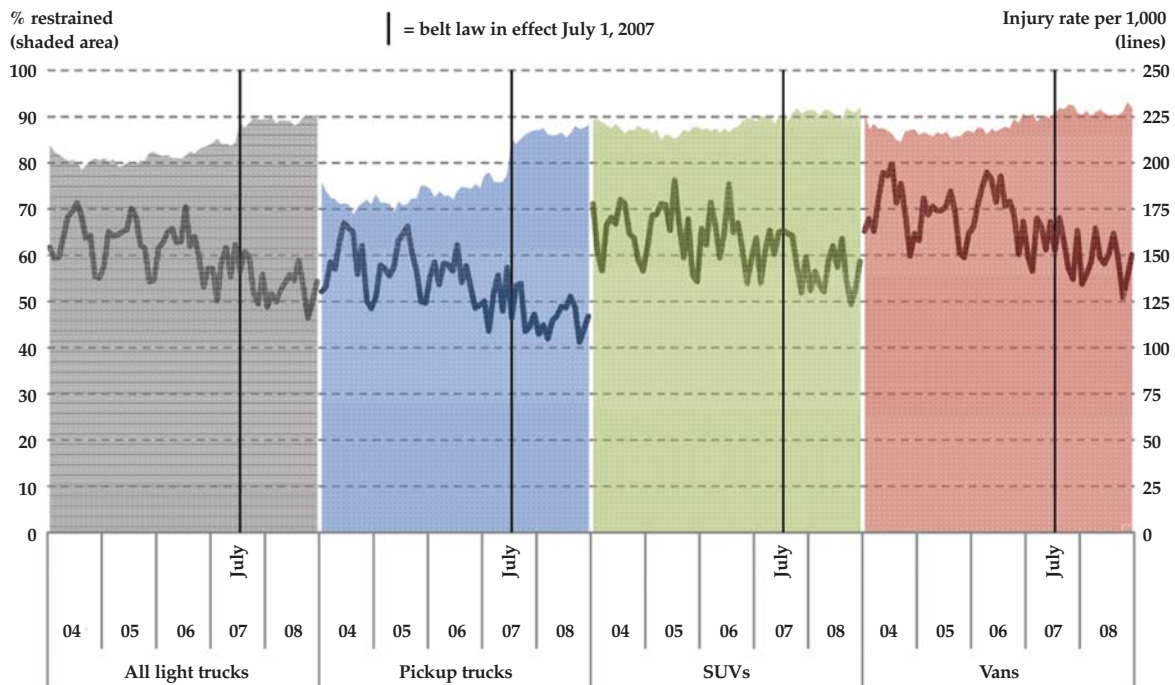
81.4 in 2007 to 86.9 in 2008. These increases were divided between drivers and injured occupants of pickup trucks: from 2007 to 2008, drivers' reported restraint use increased from 81.9 to 87.4 percent, and injured occupants' reported restraint use increased from 64.1 to 71.4 percent. Fewer occupants of pickup trucks and vans who were killed in 2008 collisions were restrained (28.1 percent in 2007 versus 23.1 percent in 2008).

**Alcohol use**

Drivers of light trucks involved in collisions are second only to motorcycle operators in alcohol use rates. In 2008, 32.3 of every 1,000 light truck drivers involved in collisions had been drinking, compared to 29.3 of passenger car drivers (Table 6). In all collisions, pickup truck drivers exhibited the highest rate of alcohol use among drivers of light trucks, at 41.5 per 1,000 involved. However, in fatal collisions, drivers of SUVs had the highest rate of alcohol use among light truck drivers at 243.5 per 1,000 involved.

When alcohol is present in collisions involving light trucks, fatal injuries are eight times more likely and incapacitating injuries are four times more likely (Table 7). The number of fatalities and total injuries in alcohol-related collisions involving light trucks has been decreasing on average each year since 2004, 2.4 and 15.1 percent (calculated from table), respectively.

**Figure 2: Monthly restraint use and injury rates among light truck vehicle occupants involved in Indiana collisions, 2004-2008**



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

Note: Light trucks defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

**Table 5: Restraint use rates among vehicle occupants involved in Indiana collisions, 2007-2008**

Persons involved in...	2007						2008					
	Light Trucks				Other motor vehicles	All vehicles types	Light Trucks				Other motor vehicles	All vehicles types
	Pickup trucks	SUVs	Vans	All			Pickup trucks	SUVs	Vans	All		
All collisions	81.4%	90.2%	90.8%	86.7%	89.2%	88.2%	86.9%	91.0%	91.1%	89.4%	89.4%	89.4%
Fatal	48.0%	51.5%	65.6%	53.1%	59.8%	57.1%	50.7%	54.5%	75.7%	57.8%	59.0%	58.6%
Incapacitating	60.0%	74.8%	80.8%	70.2%	68.8%	69.3%	69.4%	76.2%	85.3%	75.6%	71.1%	72.7%
Non-incapacitating	77.3%	89.8%	91.1%	85.4%	86.5%	86.1%	84.4%	90.6%	91.3%	88.5%	86.4%	87.1%
Property damage only	83.1%	91.0%	91.1%	87.7%	90.7%	89.6%	88.1%	91.7%	91.2%	90.1%	90.9%	90.6%
Daytime collisions (6a-5:59p)	83.4%	91.9%	91.5%	88.3%	90.8%	89.8%	89.1%	92.5%	92.2%	91.1%	90.9%	91.0%
Evening collisions (6p-5:59a)	75.8%	85.8%	88.4%	82.1%	85.2%	84.1%	80.8%	86.9%	87.3%	84.5%	85.6%	85.2%
<b>Persons by injury status and occupant type</b>												
Fatal injury	28.1%	22.0%	57.9%	31.8%	45.4%	40.5%	23.1%	25.4%	51.5%	28.8%	44.4%	40.4%
Incapacitating injury	46.1%	61.7%	74.5%	57.4%	57.0%	57.1%	58.8%	67.5%	82.0%	67.4%	61.9%	63.6%
Non-incapacitating injury	70.7%	87.1%	88.7%	81.7%	83.5%	82.9%	79.4%	88.5%	89.6%	85.6%	83.1%	83.9%
Other injury	77.9%	87.4%	88.6%	83.8%	85.1%	84.6%	85.7%	90.3%	88.3%	88.0%	88.1%	88.1%
No injury	83.4%	91.3%	91.4%	88.0%	90.9%	89.8%	88.3%	91.8%	91.5%	90.3%	91.0%	90.7%
Drivers	81.9%	90.7%	91.1%	87.1%	89.7%	88.7%	87.4%	91.4%	91.5%	89.8%	89.9%	89.9%
Injured occupants	64.1%	80.8%	84.5%	77.1%	77.9%	77.6%	71.4%	82.2%	84.4%	79.7%	77.3%	78.1%

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

**Notes:**

Light trucks defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

Other motor vehicles includes pickup trucks weighing more than 10,000 pounds, buses, combination vehicles, farm vehicles, motor home/recreational vehicles, and unknown vehicle types.

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

Time-of-day breakdown excludes individuals in collisions with invalid time reported.

**Table 6: Rate of alcohol use among drivers involved in collisions in Indiana by vehicle type, 2008**

Collision type	Drivers who had been drinking								
	Drivers of light trucks				Drivers of other motor vehicles				
	Pickup trucks	SUVs	Vans	All	Large trucks	Passenger care	Motorcycles/mopeds	Other motor vehicles	All motor vehicles
All collisions	1,880	1,234	495	3,609	32	5,192	375	25	9,233
Fatal	28	28	8	64	2	110	38	1	215
Non-fatal	625	399	149	1,173	7	1,631	305	12	3,128
Property damage only	1,227	807	338	2,372	23	3,451	32	12	5,890
	All drivers involved in collisions								
All collisions	45,299	43,330	22,959	111,588	13,143	176,905	3,718	4,192	309,546
Fatal	164	115	66	345	125	498	127	19	1,114
Non-fatal	8,051	8,241	4,484	20,776	1,173	34,063	2,695	545	59,252
Property damage only	37,084	34,974	18,409	90,467	11,845	142,344	896	3,628	249,180
	Drivers who had been drinking per 1,000 involved								
All collisions	41.5	28.5	21.6	32.3	2.4	29.3	100.9	6.0	29.8
Fatal	170.7	243.5	121.2	185.5	16.0	220.9	299.2	52.6	193.0
Non-fatal	77.6	48.4	33.2	56.5	6.0	47.9	113.2	22.0	52.8
Property damage only	33.1	23.1	18.4	26.2	1.9	24.2	35.7	3.3	23.6

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

**Notes:**

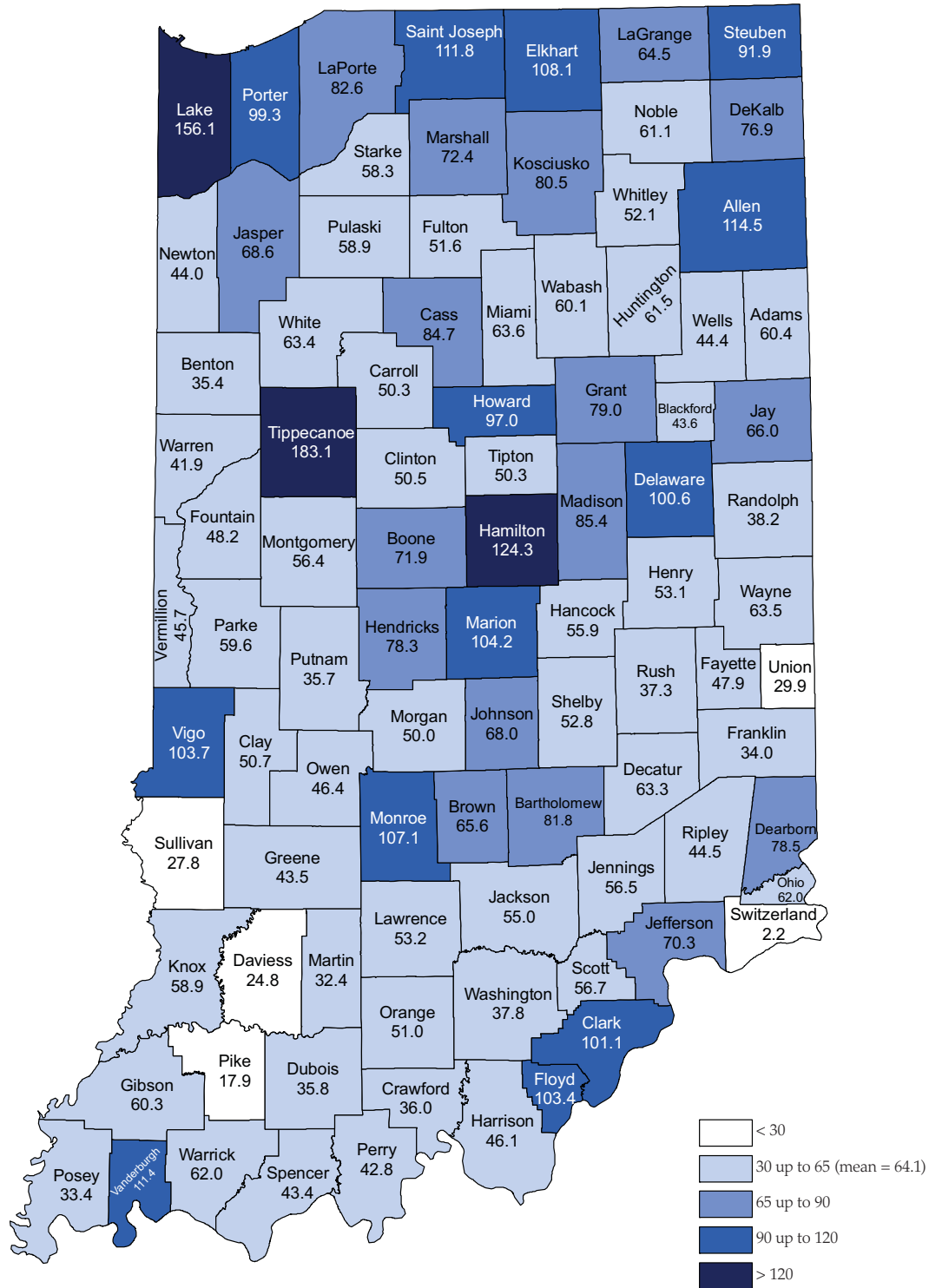
Light trucks defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

Large trucks defined as units identified as 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) or pickup truck with a gross vehicle weight rating greater than or equal to 10,000 pounds.

Other motor vehicles includes pickup trucks weighing more than 10,000 pounds, buses, combination vehicles, farm vehicles, motor home/recreational vehicles, and unknown vehicle types.

Drivers who had been drinking defined as a driver involved in a collision where any one of the following conditions are met: (1) alcoholic beverages was listed as a driver contributing circumstance; (2) driver had a positive blood alcohol content (BAC) test result, (3) as a measure of apparent physical condition, the officer determined that driver had been drinking, or (4) an operating while intoxicated (OWI) citation was issued to the driver.

Map 1: Light trucks involved in Indiana collisions per 1,000 registered trucks, 2008



Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2009. Indiana Bureau of Motor Vehicles, as of February 16, 2008.

Notes:

Light trucks defined as vans, and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less. Registration data were not available for light trucks as defined above, and instead includes all vehicle registered as trucks in Indiana.

**Table 7: Injuries in Indiana collisions involving light trucks by collision alcohol involvement status, 2004-2008.**

	2004	2005	2006	2007	2008	% change '07 - '08	Average Annual Change
<b>TOTAL</b>	<b>199,314</b>	<b>197,204</b>	<b>176,762</b>	<b>182,168</b>	<b>174,707</b>	<b>-4.1%</b>	<b>-3.1%</b>
<b>Not alcohol-related</b>	<b>187,281</b>	<b>185,050</b>	<b>166,912</b>	<b>174,184</b>	<b>167,524</b>	<b>-3.8%</b>	<b>-2.6%</b>
Fatal	330	340	315	340	266	-21.8%	-4.5%
Incapacitating	1,647	1,613	1,514	1,430	1,413	-1.2%	-3.7%
Non-incapacitating	28,049	27,075	24,795	23,628	21,531	-8.9%	-6.4%
Other injury	15,897	18,466	11,470	4,656	3,330	-28.5%	-27.4%
Not injured	141,358	137,556	128,818	144,130	140,984	-2.2%	0.2%
<b>Alcohol-related</b>	<b>12,033</b>	<b>12,154</b>	<b>9,850</b>	<b>7,984</b>	<b>7,183</b>	<b>-10.0%</b>	<b>-11.7%</b>
Fatal	116	156	111	123	91	-26.0%	-2.4%
Incapacitating	368	351	337	318	240	-24.5%	-9.7%
Non-incapacitating	3,090	3,107	2,593	2,333	1,927	-17.4%	-10.9%
Other injury	1,254	1,388	1,023	290	175	-39.7%	-31.7%
Not injured	7,205	7,152	5,786	4,920	4,750	-3.5%	-9.6%
<b>Relative risk of injury</b>							
Fatal	5.5	7.0	6.0	7.9	8.0	--	--
Incapacitating	3.5	3.3	3.8	4.9	4.0	--	--
Non-incapacitating	1.7	1.7	1.8	2.2	2.1	--	--
Other injury	1.2	1.1	1.5	1.4	1.2	--	--

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

**Notes:**

*Light trucks* defined as *vans*, and *sport utility vehicles*, and *pickup trucks* with a gross vehicle weight rating of 10,000 pounds or less.

*Alcohol-related* applies when any of the following conditions are met: (1) *Alcoholic beverages* is listed as the primary factor or as a unit contributing factor to the occurrence of the collision; (2) A motor vehicle driver or non-motorist involved in the collision has a blood alcohol content (BAC) test result greater than 0.0 grams per deciliter (g/dL); (3) The apparent physical condition of a motor vehicle driver or non-motorist involved is reported as *Had been drinking*; (4) A motor vehicle driver is issued an Operating While Intoxicated (OWI) citation. See Indiana Code IC 9-30-5 and IC 9-30-15 for reference.

*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.

Relative risk of injury equals injury-specific percent of total alcohol-related divided by injury-specific percent of total not alcohol-related.

## County comparisons

The average rate of light truck involvement in collisions in Indiana counties increased slightly in 2008. In 2008, the county average rate of light truck involvement in collisions was 64.1 per 1,000 registered trucks, compared to 62.6 in 2007. All counties on the northern border of the state had rates above the county average, while most counties in the southern part of the state experienced rates below the average (Map 1). Three counties—Tippecanoe, Lake, and Hamilton—experienced rates twice the county average, while Switzerland, Pike, Daviess, Sullivan, and Union counties had rates well below the average.

## Summary

Total collisions and fatal collisions involving light trucks decreased from 2007 to 2008 and have been decreasing on average since 2004. While the rate of light truck involvement in fatal collisions decreased substantially in 2008, the rate of involvement in all collisions increased. Consistent with the reductions in collisions involving light trucks and decreasing rate of involvement in fatal collisions, fatal, incapacitating, and non-incapacitating injuries to persons in collisions involving light trucks decreased significantly in 2008 and on average since 2004. Perhaps due in part to passage of a more comprehensive seat belt law, restraint use rates among light truck occupants involved in collisions have increased alongside those of other vehicle types. In 2008, rates of alcohol use among light truck drivers were higher than those for drivers of other vehicle types. Northern Indiana counties experienced relatively high rates of light truck involvement in collisions in 2008.

### Endnote:

<sup>1</sup>Light trucks defined as vans and sport utility vehicles, and pickup trucks with a gross vehicle weight rating of 10,000 pounds or less.

National Center for Statistics and Analysis, *Traffic Safety Facts, 2007* (DOT HS 811 002). National Highway Traffic Safety Administration. Washington D.C.

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

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An electronic copy of this document can be accessed via the CCJR website ([www.criminaljustice.iupui.edu](http://www.criminaljustice.iupui.edu)), the ICJI website ([www.in.gov/cji/](http://www.in.gov/cji/)), or you may contact the Center for Criminal Justice Research at 317-261-3000.

### **The Indiana Criminal Justice Institute (ICJI)**

Guided by a Board of Trustees representing all components of Indiana's criminal and juvenile justice systems, the Indiana Criminal Justice Institute serves as the state's planning agency for criminal justice, juvenile justice, traffic safety, and victim services. ICJI develops long-range strategies for the effective administration of Indiana's criminal and juvenile justice systems and administers federal and state funds to carry out these strategies.

### **The Governor's Council on Impaired & Dangerous Driving**

The Governor's Council on Impaired & 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.

### **Indiana University Public Policy Institute**

The Indiana University (IU) Public Policy Institute is a collaborative, multidisciplinary research institute within the Indiana University School of Public and Environmental Affairs (SPEA), Indianapolis. The Institute serves as an umbrella organization for research centers affiliated with SPEA, including the Center for Urban Policy and the Environment, the Center for Health Policy, and the Center for Criminal Justice Research. The Institute also supports the Office of International Community Development and the Indiana Advisory Commission on Intergovernmental Relations (IACIR).

### **The Center for Criminal Justice Research (CCJR)**

The Center for Criminal Justice Research, one of three applied research centers currently affiliated with the Indiana University Public Policy Institute, works with public safety agencies and social services organizations to provide impartial applied research on criminal justice and public safety issues. CCJR provides analysis, evaluation, and assistance to criminal justice agencies; and community information and education on public safety questions. CCJR research topics include traffic safety, crime prevention, criminal justice systems, drugs and alcohol, policing, violence and victimization, and youth.

### **The National Highway Traffic Safety Administration (NHTSA)**

NHTSA provides leadership to the motor vehicle and highway safety community through the development of innovative approaches to reducing motor vehicle crashes and injuries. The mission of NHTSA is to save lives, prevent injuries and reduce economic costs due to road traffic crashes, through education, research, safety standards and enforcement activity.

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