INDIANA TRAFFIC SAFETY FACTS 2010

May 2010

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 collisions. 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 2009 vehicle crash data from the Automated Reporting Information Exchange System (ARIES), maintained by the Indiana State Police. This marks the fourth 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 young 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, 2009, approximately 99 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.

INDIANA CRIMINAL JUSTICE INSTITUTE

CENTER FOR CRIMINAL JUSTICE RESEARCH

YOUNG DRIVERS 2009

Ages 15-20

Motor vehicle collisions are consistently the leading cause of death and one of the leading causes of non-fatal injury for young people ages 15 to 20.[1] In 2009 in Indiana, this age group represented 9 percent of the population, 6 percent of licensed drivers, and 17 percent of drivers involved in collisions.[2] This fact sheet provides an overview of young driver involvement in collisions in Indiana in 2009, including rates of involvement, contributing factors, restraint and alcohol use, and county comparisons.

Trends in collisions involving young drivers

The number of collisions in Indiana involving young drivers generally decreased from 2005 to 2009 (Table 1), though the percent of collisions involving a young driver increased slightly from 22.6 percent in 2008 to 23.1 percent in 2009. A total of 48,017 young drivers were involved in collisions in Indiana in 2009 (Table 2), 5.7 percent fewer than in 2008 (not shown). Young driver fatalities decreased 36 percent in 2009 (from 75 to 48) with 1 in every 1,000 young drivers involved in collisions suffering a fatal injury.

From 2000 to 2008, the rate of young drivers involved in Indiana fatal collisions per 100,000 licensed young drivers decreased an average of 1.8 percent each year (Table 3). For the same period, Indiana young drivers fatally injured per 100,000 licensed increased an average of 0.5 percent each year while the Great Lakes region (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin) and the United States experienced decreases (5.5 and 3.6 percent, respectively). In 2009, the rate of young drivers involved in fatal collisions decreased further from 50.3 per 100,000 licensed in 2008 to 38.2, and the rate of young drivers fatally injured decreased from 27.1 to 15.8.[3]

Table 1: Indiana collisions, by young driver involvement and collision severity, 2005-2009

	Count of collisions					Rate: As % all by severity		
Collision Severity	2005	2006	2007	2008	2009	2008	2009	Rate change ('08 - '09)
Young driver involved	51,522	47,123	48,222	46,347	43,727	22.6%	23.1%	0.5
Fatal	160	167	146	136	112	18.8%	17.7%	-1.1
Non-fatal injury	11,841	11,129	10,445	9,181	9,157	26.0%	27.4%	1.4
Property damage	39,521	35,827	37,631	37,030	34,458	21.9%	22.1%	0.3
Young driver not involved	156,837	145,598	156,777	159,105	145,949	77.4%	76.9%	-0.5
Fatal	695	650	658	586	519	81.2%	82.3%	1.1
Non-fatal injury	29,920	27,720	26,971	26,177	24,254	74.0%	72.6%	-1.4
Property damage	126,222	117,228	129,148	132,342	121,176	78.1%	77.9%	-0.3
All	208,359	192,721	204,999	205,452	189,676	100%	100%	--
Fatal	855	817	804	722	631	100%	100%	--
Non-fatal injury	41,761	38,849	37,416	35,358	33,411	100%	100%	--
Property damage	165,743	153,055	166,779	169,372	155,634	100%	100%	--

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Note:
***Non-fatal* includes *incapacitating* and *non-incapacitating (including possible injury)* collisions.**

Table 2: Injuries in collisions involving young drivers, 2005-2009

Person type/ Injury status	Count of injuries					Rate: as % all by severity		
	2005	2006	2007	2008	2009	2008	2009	Rate change ('08 - '09)
Young driver (< 21)	56,949	52,100	53,024	50,928	48,017	59.8%	59.0%	-0.8
Fatal	81	89	68	75	48	47.8%	37.2%	-10.6
Incapacitating	401	381	369	339	311	41.9%	40.8%	-1.1
Non-incapacitating	7,147	6,741	6,137	5,320	5,199	42.1%	40.6%	-1.6
Other injury	6,061	3,840	1,489	1,016	798	58.9%	60.5%	1.7
Not injured	43,259	41,049	44,961	44,178	41,661	63.3%	62.8%	-0.5
Other individuals	40,166	36,927	36,664	34,213	33,360	40.2%	41.0%	0.8
Fatal	106	103	106	82	81	52.2%	62.8%	10.6
Incapacitating	576	589	504	470	452	58.1%	59.2%	1.1
Non-incapacitating	9,559	9,199	8,605	7,302	7,612	57.9%	59.4%	1.6
Other injury	4,166	2,652	985	710	520	41.1%	39.5%	-1.7
Not injured	25,759	24,384	26,464	25,649	24,695	36.7%	37.2%	0.5
All	97,115	89,027	89,688	85,141	81,377	100%	100%	--
Fatal	187	192	174	157	129	100%	100%	--
Incapacitating	977	970	873	809	763	100%	100%	--
Non-incapacitating	16,706	15,940	14,742	12,622	12,811	100%	100%	--
Other injury	10,227	6,492	2,474	1,726	1,318	100%	100%	--
Not injured	69,018	65,433	71,425	69,827	66,356	100%	100%	--

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

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.**

Research consistently demonstrates that younger drivers have substantially higher collision rates—and thus, greater risk of injury or death—than older drivers.[4,5] In 2009, young drivers in Indiana had the highest rates of involvement in fatal collisions (Figure 1). For every 10,000 licensed 16-17 year-olds, five were involved in a fatal collision—a rate 1.5 times greater than 18-20 year-old drivers and at least two times greater than any older driver age group.

Young driver contributing factors

Inexperience, inadequate driving skills, greater propensity for risk-taking, driving while impaired, and in-vehicle driver distractions put young drivers at greater risk for involvement in collisions.[6] In

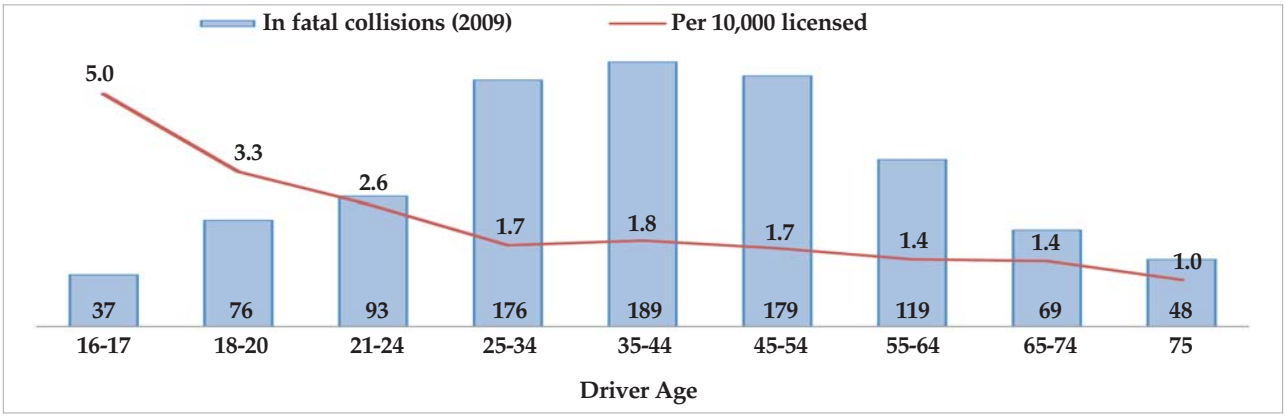
Table 3: Young drivers in fatal collisions, per 100,000 licensed young drivers, 2000-2009

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	Annual average change 2000-2008	2009	% Change ('08-'09)
	Young drivers (< 21) involved in fatal collisions											
Indiana	62.8	64	51	59.9	68.4	54.3	58.5	52.4	50.3	-1.8%	38.2	-24.1%
Great Lakes	56.7	53.9	54.9	53.2	50.1	45.5	44.2	41.6	32.0	-6.6%	n/a	n/a
United States	63.3	64.6	66.2	63.4	63.1	59.3	57.7	52.8	43.7	-4.3%	n/a	n/a
	Young drivers (< 21) fatally injured											
Indiana	28.2	31.4	27.3	27.4	32.9	26.8	29.1	24.0	27.1	0.5%	15.8	-41.6%
Great Lakes	24.3	24.7	25.8	24.3	22.8	21.3	20.6	19.5	15.1	-5.5%	n/a	n/a
United States	27.9	28.7	30.6	29.4	28.9	27.5	26.9	24.0	20.4	-3.6%	n/a	n/a

Sources:
2000-2008: Fatality Analysis Reporting System; Federal Highway Administration, State Transportation Statistics.
2009: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010; Federal Highway Administration, State Transportation Statistics, 2008. (2009 licensed driver counts were not available at time of publication).

Note:
***Great Lakes* region is defined as Indiana, Illinois, Michigan, Minnesota, Ohio, and Wisconsin.**

Figure 1: Drivers involved in Indiana fatal collisions per 10,000 licensed drivers, 2008



Sources:
Collision: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.
Licensed driver: Federal Highway Administration, State Transportation Statistics, 2008. (2009 licensed driver counts were not available at time of publication).

Note:
Includes drivers with a valid age reported in collision and licensed driver data.

2009, young driver actions were more often reported as contributing factors in collisions compared to older drivers (drivers age 21 and over): *driver not a factor* represented 47 percent of older driver factors but only 30 percent of young driver contributing factors (Table 4).[7] More than half (55 percent) of young driver contributing factors were attributable to *errant/risky driving* compared to 39 percent for older drivers. Drivers 18-20 years old were 15 times more likely than 15 year-old drivers and 2 times more likely than 16-17 year-old drivers to be impaired (not shown).

Effective July 1, 2009, probationary license holders under the age of 18 are prohibited from using telecommunications devices while operating a vehicle and carrying passengers "for the first 180 days unless accompanied by a licensed instructor or 25 year-old licensed driver."[8] Though it is too early to measure the impact of these restrictions, the proportion of young drivers involved in collisions who were distracted (defined as use of a cell phone or other telecommunication device and passenger distraction) has decreased since the restrictions took effect (Figure 2).

Young drivers with passengers are consistently at greater risk of collisions due to the combination of passenger-induced distractions, driver inexperience, and greater propensity for driver risk-taking.[9] In 2009 in Indiana, young drivers with passengers were more than two times (2.28) as likely as young drivers without passengers to be involved in a fatal collision (Table 5). Additionally, young drivers' relative risk of involvement in a fatal collision was more than two times greater than older drivers (2.28 compared to 0.94).

The number of young passengers (ages 15-20) in vehicles with young drivers in collisions (ages 15-20) decreased 1.1 percent (1,835 to 1,814) from 2008 to 2009, while the proportion of passengers in vehicles with young drivers who were young increased slightly (67.2 percent to 67.5 percent) (Table 6). Young passenger fatalities, as a proportion of all fatalities sustained by passengers in vehicles with young drivers, fell 5.2 percentage points, while proportions of incapacitating, non-incapacitating, and other injuries increased.

Safety equipment use and alcohol use

Considering drivers involved in collisions where safety equipment use was known, young drivers—with the exception of 15 year-old drivers—were just as likely as older drivers to have used safety equipment (97.7 percent versus 97.7 percent) (Table 7). Of young drivers killed, 44 percent were using safety equipment compared to 47 percent of older drivers. Safety equipment use rates for all age groups were higher for less severe injuries, suggesting that the use of safety equipment reduced the incidence of more serious injuries. Fifteen year-old drivers were the least likely to use safety equipment (85.6 percent) perhaps because they are new to driving and not yet in the routine of putting on their seat belt.

Approximately two percent (900 of 47,984) of young drivers involved in collisions in 2009 had been drinking (Table 8).[10] Drivers suffering more serious injuries were more likely to have been drinking, and drinking was more common for males than females. Nearly one-seventh of all young drivers killed and 16.7 percent of 16-17 year-old drivers killed had been drinking. Young male drivers killed were 2.7 times (18.2 percent/6.7 percent) more likely than females to have been drinking.

Young drivers in collisions by time of day

Nighttime driving (6pm-6am) may be particularly problematic and challenging for young drivers because of inexperience

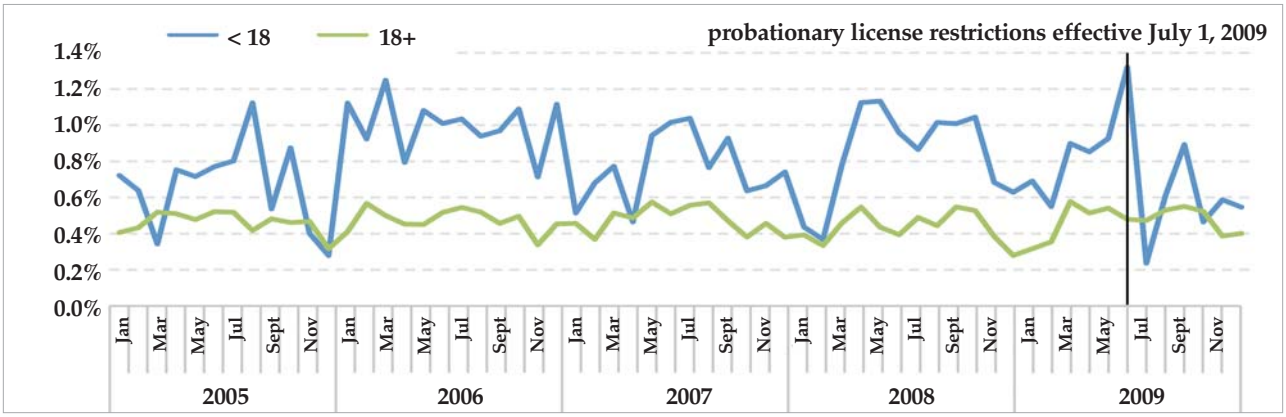
Table 4: Young driver contributing factors in Indiana collisions, 2009

	Count of driver factors					Percent of driver factors				
	15	16-17	18-20	<21	21+	15	16-17	18-20	<21	21+
All driver factors assigned	494	18,447	33,019	51,960	253,291	100%	100%	100%	100%	100%
Errant/risky driving	273	10,666	17,726	28,665	99,205	55.3%	57.8%	53.7%	55.2%	39.2%
Driver not a factor	116	4,967	10,249	15,332	118,012	23.5%	26.9%	31.0%	29.5%	46.6%
Other driving condition	84	1,521	2,540	4,145	19,685	17.0%	8.2%	7.7%	8.0%	7.8%
Distracted driving	20	1,016	1,514	2,550	7,518	4.0%	5.5%	4.6%	4.9%	3.0%
Other distraction	20	890	1,262	2,172	6,512	4.0%	4.8%	3.8%	4.2%	2.6%
Cell phone and other telematics	0	109	229	338	862	0.0%	0.6%	0.7%	0.7%	0.3%
Passenger distraction	0	17	23	40	144	0.0%	0.1%	0.1%	0.1%	0.1%
Impaired driving	1	277	990	1,268	8,871	0.2%	1.5%	3.0%	2.4%	3.5%

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
Counts are for drivers with a valid age reported.
Counts may be greater than the number of drivers because multiple factors can be reported for a single driver.
Percent values represent the percent of all factors for each group (i.e., of the 459 factors attributed to 15 year old drivers involved in collisions, *distracted driving* accounted for 4.0 percent).
***Driver impaired* is defined as contributing factors reported as one or more of the following: 1) *Alcoholic beverages*, 2) *Driver Asleep or Fatigued*, 3) *Driver Illness*, 4) *Illegal Drugs*, and 5) *Prescription Drugs*.**
***Errant/risky driving* is defined as contributing factors reported as one or more of the following: 1) *Disregard Signal/Reg Sign*, 2) *Failure to Yield Right of Way*, 3) *Following Too Closely*, 4) *Improper Lane Usage*, 5) *Improper Passing*, 6) *Improper Turning*, 7) *Jackknifing*, 8) *Left of Center*, 9) *Overcorrecting/Oversteering*, 10) *Ran Off Road Left*, 11) *Ran Off Road Right*, 12) *Speed too Fast for Weather Conditions*, 13) *Unsafe Backing*, 14) *Unsafe Speed*, and 15) *Wrong Way on One Way*.**
***Other driving condition* is defined as contributing factors reported as one or more of the following: 1) *Other (Explained in Narrative) - driver*, 2) *Pedestrian Action*, and 3) *Violation of License Restriction*.**
***Other driving condition* includes *unknown* driver factors**

Figure 2: Proportion of drivers involved in collisions who were distracted, by month, 2005-2009



Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
Counts are for drivers with a valid age reported.
Percent values represent the percent of all drivers for each month (i.e., in December 2009, approximately 0.6 percent of all young drivers involved in collisions were distracted).
Data show 15-17 year-old drivers because new restrictions took effect for these drivers July 1, 2009.
***Distracted driving* factors include: 1) *Cell phone usage*, 2) *Other telematics in use*, and 3) *Passenger distraction*.**

driving at night, lower visibility, fatigue, and alcohol/drug use.[11] Effective July 1, 2009, Indiana implemented further restrictions on driving times for probationary license holders under 18 years of age to include:

- 10pm until 5am during the first 180 days of the probationary license;
- Between 1am and 5am on Saturday and Sunday, after 180 days;
- After 11pm Sunday through Thursday, after 180 days; and,
- Before 5am Monday through Friday, after 180 days.

In 2009, nine percent of drivers under 18 years of age involved in collisions were involved in collisions from 10pm to 5am (though not necessarily in violation of the code depending on if they received a probationary license before July 1, 2009, and how long they have held it). Year-over-year comparisons of young drivers (< 18) involved in collisions from 10pm to 5am, as a proportion of all drivers, suggest early results of the new time restrictions are mixed (Figure 3).

Table 5: Drivers in Indiana collisions by passenger presence, 2009

		Count of drivers in collisions, by collision severity				
Driver age	Passengers?	Fatal	Non-fatal	Total	% Fatal	Relative risk of involvement in fatal collision
16-17	Yes	22	6,405	6,427	0.34%	2.43
	No	15	10,639	10,654	0.14%	
18-20	Yes	41	10,462	10,503	0.39%	2.23
	No	35	19,947	19,982	0.18%	
21-24	Yes	30	8,931	8,961	0.33%	1.13
	No	63	21,182	21,245	0.30%	
25-44	Yes	110	32,325	32,435	0.34%	0.96
	No	255	71,632	71,887	0.35%	
45+	Yes	97	26,596	26,693	0.36%	0.90
	No	318	78,208	78,526	0.40%	
< 21	Yes	63	16,867	16,930	0.37%	2.28
	No	50	30,586	30,636	0.16%	
21+	Yes	237	67,852	68,089	0.35%	0.94
	No	636	171,022	171,658	0.37%	
All ages	Yes	300	84,719	85,019	0.35%	1.04
	No	686	201,608	202,294	0.34%	

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
Counts are for drivers with a valid age reported.
Excludes 15 year-old drivers who are required to have an adult passenger with them while driving.
Passengers includes units with more than one occupant.
Relative risk defined as ratio of passenger presence fatality rate (fatal as % total) to no passenger presence fatality rate.

Indiana county comparisons

In 2009, an average of 18.2 percent of drivers involved in county collisions were young. The highest proportions were generally clustered in the southwest part of the state (Map 1). Pike County experienced the highest proportion of young drivers involved in collisions (24.8 percent), followed by Franklin, Posey, Perry, Wells, Daviess, Spencer, Dubois, Lawrence, and Green. Among counties with the smallest proportions were Newton, Marion, Lake, Pulaski, Decatur, Clark, Cass, Steuben, Jefferson, Marshall, and Ohio.

Table 6: Young passengers (ages 15-20) in vehicles with young drivers (ages 15-20) by injury status, 2005-2009

	Count of young passengers					Rate: as % all passengers in vehicles with young drivers		
Injury status	2005	2006	2007	2008	2009	2008	2009	Rate change ('08-'09)
All young passengers	**2,373**	**2,291**	**2,147**	**1,835**	**1,814**	**67.2%**	**67.5%**	**0.3**
Fatalities	31	27	36	32	27	72.7%	67.5%	-5.2
Incapacitating injuries	142	134	135	106	101	64.2%	66.4%	2.2
Non-incapacitating injuries	2,065	2,075	1,922	1,646	1,641	67.5%	67.7%	0.2
Other injuries	110	35	17	15	13	46.9%	56.5%	9.6
No injuries	25	20	37	36	32	72.0%	68.1%	-3.9

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
***Non-incapacitating* injuries include those injuries reported as both *non-incapacitating* and *possible*.**
***Other injury* status includes *not reported, unknown,* and *refused* (treatment) status codes.**
***No injury* status includes individuals involved in collisions reported as null values in the injury status code field.**
Excludes individuals identified as *drivers* and non-motorists identified as a *pedestrian* or *pedalcyclist*.
Excludes individuals with invalid ages.

Table 7: Safety equipment use among young drivers in Indiana, 2009

	Young drivers				
Driver injury status	15	16-17	18-20	<21	21+
Restrained/unrestrained	375	15,823	27,958	44,156	220,616
Fatal	0	10	31	41	400
Incapacitating	4	84	182	270	1,703
Non-incapacitating	65	1,787	3,054	4,906	23,219
Other injury	14	312	427	753	3,036
Not injured	292	13,630	24,264	38,186	192,258
Restrained	321	15,536	27,299	43,156	215,633
Fatal	0	6	12	18	187
Incapacitating	1	63	120	184	1,191
Non-incapacitating	38	1,632	2,740	4,410	21,107
Other injury	14	310	416	740	2,984
Not injured	268	13,525	24,011	37,804	190,164
% Restrained	85.6%	98.2%	97.6%	97.7%	97.7%
Fatal	0.0%	60.0%	38.7%	43.9%	46.8%
Incapacitating	25.0%	75.0%	65.9%	68.1%	69.9%
Non-incapacitating	58.5%	91.3%	89.7%	89.9%	90.9%
Other injury	100.0%	99.4%	97.4%	98.3%	98.3%
Not injured	91.8%	99.2%	99.0%	99.0%	98.9%

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
Counts are for drivers with a valid age reported where restraint use was known.
***Used safety equipment* applies to a motor vehicle occupant involved in a collision when the safety equipment type reported is one of the following: 1) *Lapbelt only,* 2) *Harness,* 3) *Airbag deployed + harness,* 4) *Child restraint,* or 5) *Lap + harness*. Also applies to a motorcycle rider involved in a collision when the safety equipment type reported is *Helmet*.**
***Non-incapacitating* injuries include those injuries reported as *non-incapacitating* or *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.**

Summary

The rate of young drivers involved in fatal collisions and fatally injured has decreased on average during the last decade in Indiana, yet young drivers remain disproportionately represented among drivers in collisions. The number and rate of young drivers killed in collisions decreased in 2009; however, young drivers—especially 16-17 year-olds—are experiencing significantly higher rates of involvement in fatal collisions than older age groups. The actions of young drivers are more often reported as having contributed to their involvement in collisions than older drivers, and errant/risky driving and distracted driving are more common for young drivers involved in collisions. New probationary license restrictions aimed at reducing distracted driving took effect July 1, 2009, and although preliminary, distracted driving among young drivers as a proportion of all young drivers appears to have decreased compared to previous years. Alcohol use among young drivers—particularly male drivers—continues to be a point of concern, with nearly one in seven young drivers killed having been drinking. Indiana has experienced favorable results in its efforts to increase restraint use: 98 percent of young and older drivers involved in collisions in 2009 were restrained.

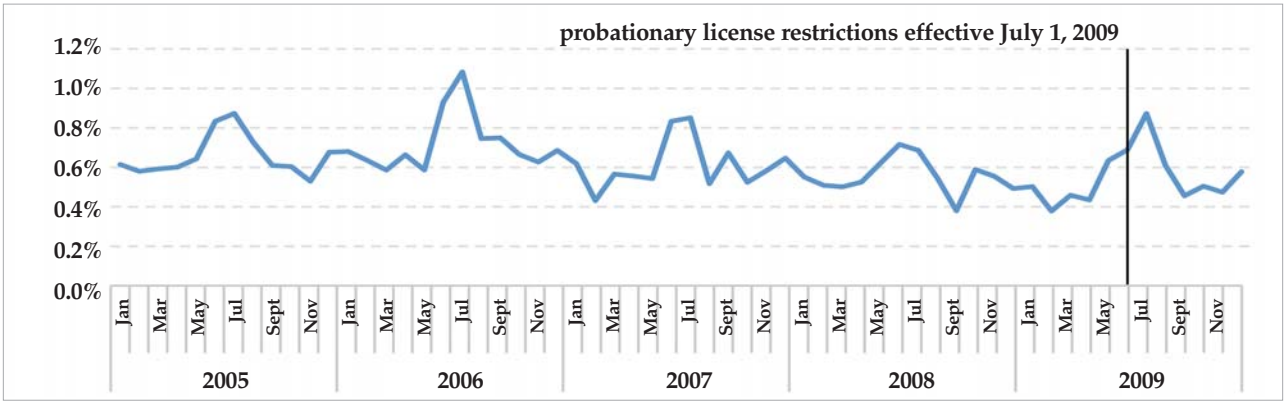
Table 8: Indiana young drivers and alcohol use, 2009

	Count of drivers					Percent of drivers who had been drinking				
	15	16-17	18-20	<21	21+	15	16-17	18-20	<21	21+
All drivers	451	17,076	30,457	47,984	239,584	0.2%	0.8%	2.5%	1.9%	3.2%
Fatal injury	2	12	34	48	442	0.0%	16.7%	14.7%	14.6%	24.4%
Female	0	7	8	15	97	0.0%	14.3%	0.0%	6.7%	11.3%
Male	2	5	26	33	345	0.0%	20.0%	19.2%	18.2%	28.1%
Incapacitating injury	7	96	208	311	1,834	0.0%	5.2%	15.9%	12.2%	12.6%
Female	1	48	91	140	677	0.0%	4.2%	4.4%	4.3%	5.6%
Male	6	48	117	171	1,157	0.0%	6.3%	24.8%	18.7%	16.8%
Non-incapacitating injury	83	1,874	3,242	5,199	24,602	0.0%	1.9%	6.5%	4.8%	6.8%
Female	31	1,044	1,715	2,790	12,859	0.0%	1.2%	3.3%	2.5%	2.9%
Male	52	830	1,527	2,409	11,743	0.0%	2.7%	10.2%	7.4%	11.1%
Other injury	14	325	455	794	3,195	0.0%	0.0%	4.2%	2.4%	3.7%
Female	8	154	189	351	1,423	0.0%	0.0%	2.6%	1.4%	2.3%
Male	6	171	266	443	1,772	0.0%	0.0%	5.3%	3.2%	4.9%
Not injured	345	14,769	26,518	41,632	209,511	0.3%	0.7%	1.9%	1.4%	2.7%
Female	164	6,837	12,114	19,115	90,306	0.6%	0.3%	0.9%	0.7%	1.5%
Male	181	7,932	14,404	22,517	119,205	0.0%	1.0%	2.6%	2.0%	3.6%

Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
Counts are for drivers with a valid age and gender reported.
Percent values represent the percent of drivers who *had been drinking* (i.e., Of the twelve 16-17 year-old drivers involved in collisions who suffered fatal injuries, 16.7 percent *had been drinking*).
***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.**
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.

Figure 3: Young drivers (< 18) involved in collisions 10pm-5am as a proportion of all drivers, by month, 2005-2009



Source: Indiana State Police Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
Counts are for drivers with a valid age reported.
Percent values represent the percent of all drivers for each month (i.e., In December 2009, approximately 0.6 percent of all young drivers involved in collisions were distracted).
Data show 15-17 year-old drivers because new restrictions took effect for these drivers July 1, 2009.
***Distracted driving* factors include: 1) *Cell phone usage*, 2) *Other telematics in use*, and 3) *Passenger distraction*.**

Endnotes:

[1]Centers for Disease Control and Injury Prevention, Web-Based Injury Statistics Query and Reporting System. *Leading causes of death reports (1999-2006)*; Centers for Disease Control and Injury Prevention, Web-Based Injury Statistics Query and Reporting System. *Leading causes of non-fatal injury reports (2001-2008)*.

[2]Population proportion estimated based on average change in population from 2004-08 using Census Bureau population estimates. Licensed driver data were not available for 2009. Data are based on 2008 licensed drivers.

[3]Because 2009 rates were calculated using different data sources and are based on 2008 licensed driver data, readers should use caution when comparing 2009 rates to earlier years.

[4]McCartt, A.T., Mayhew, D.R., Braitman, K.A., Ferguson, S.A., Simpson, H.M. (2009). Effects of age and experience on young driver crashes: review of recent literature. *Traffic Injury Prevention, 10*(3), 209-219.

[5]The term "older drivers" is used throughout the fact sheet and refers to drivers between 21 and 109.

[6]National Highway Traffic Safety Administration (NHTSA). (2008). Traffic safety facts, laws – *Graduated driver licensing system.*

[7]Up to two driver factors can be selected for each driver. Because of this, the number of factors is generally greater than the number of drivers and some factors that might have contributed may not have been selected.

[8]Indiana General Assembly. IC 9-24-11-3.3.

[9]Williams, A., Ferguson, S., McCartt, A. (2007). Passenger effects on teenage driving and opportunities for reducing the risks of such travel. *Journal of Safety Research*, 38, 381-390.

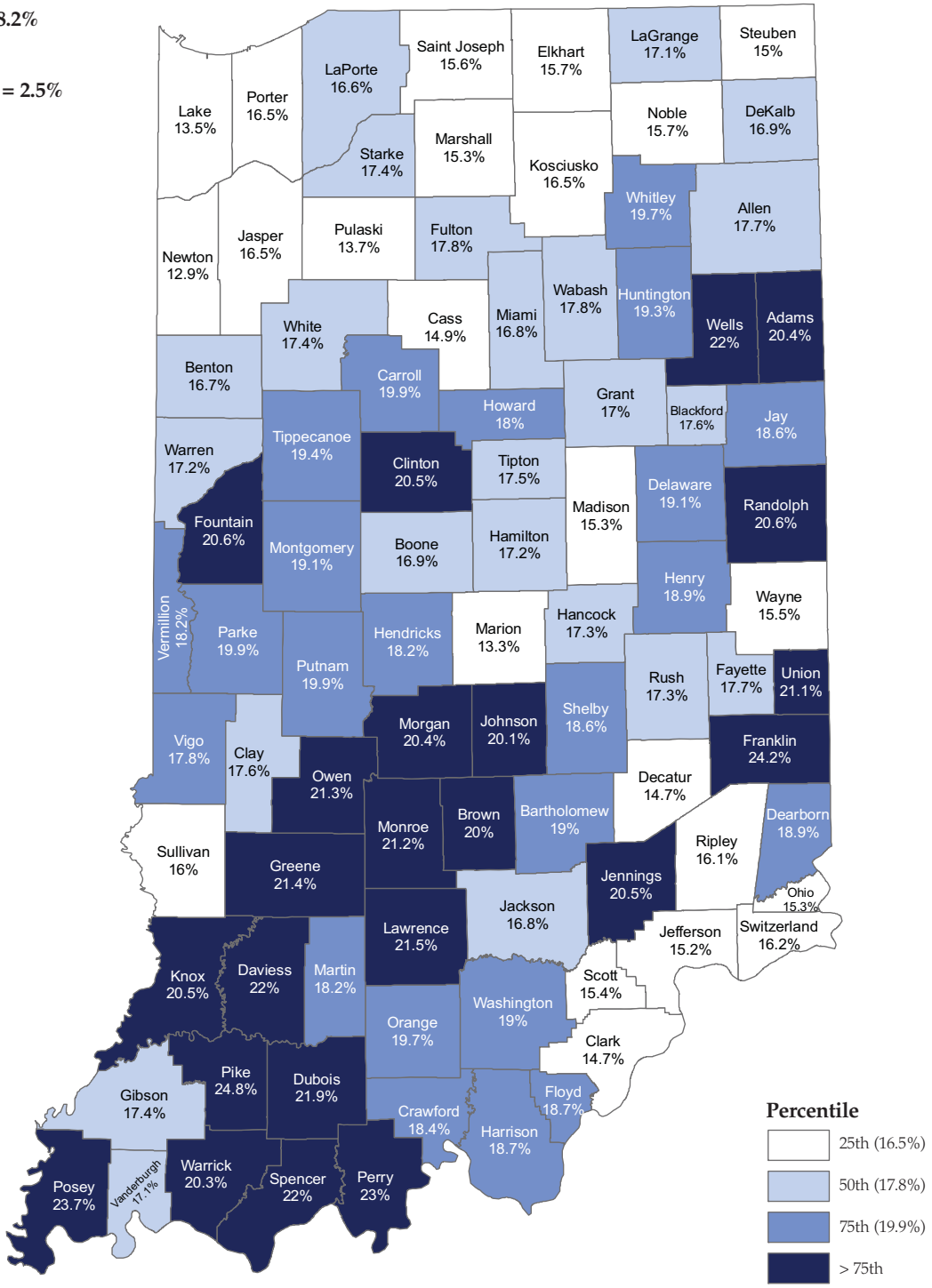
[10]Counts of drivers may be different than those cited earlier due to unknown gender.

[11]National Safety Council. (2007). *What you should know about nighttime driving restrictions.* Presented at the International Symposium on Novice Teen Driving: GDL and Beyond – Research Foundations for Policy and Practice held in Tucson, Arizona on February 5-7, 2007.

Map 1: Young drivers as a percent of all drivers involved in county collisions, 2009

Mean = 18.2%

Standard deviation = 2.5%



Source: Automated Reporting Information Exchange System (ARIES), as of March 1, 2010.

Notes:
Includes drivers ages 15 to 20 with a valid county reported.
Standard deviation is the county average difference from the mean.
The number of young drivers involved ranged from 32 to 5,779.

2010 INDIANA TRAFFIC SAFETY FACTS

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.ccjr.iupui.edu), the ICJI website (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.

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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 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).

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The Center for Criminal Justice Research, one of two 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.

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