INDIANA 2010 TRAFFIC SAFETY FACTS

DRIVERS, 2010

APRIL 2011 • ISSUE 11-C01

SUMMARY

Despite a resurgence of road travel in the last 18 months, driver fatal crash rates have decreased in Indiana and nationwide. Declines were most pronounced among teen drivers, especially due to implementation of a Graduated Driver Education (GDL) system in July 2009 and in 2010. Fatal crash rates for drivers ages 18 to 24 also decreased; rates for older drivers have remained relatively constant since 2000.

The likelihood of different types of driving behavior may also partially explain why crash rates declined for younger drivers and remained more constant for older drivers. Younger drivers are more likely to lose control of the vehicle and to engage in erratic and risky driving behavior, which also includes cell phone use. Older drivers, by comparison, are much more likely to suffer from cognitive delays in reaction time; as a result these drivers are often marked for failing to yield right of way, improper lane use and turning actions, and driving left of road-center (Ball et a.l, 1998; Lyman et a.l, 2001; Stutts, 2009). In fact, these types of behavior make drivers 75 years and older just as likely to cause fatal crashes as teen drivers.

GDL restrictions and minimum age requirements have produced net decreases in overall crashes and crashes related to cell phone use. The Indiana General Assembly recently passed HB 1129, which prohibits text messaging for all drivers, though general cell phone use for drivers older than 17 is still allowed. The rate of cell phone-related crashes among drivers ages 18 to 24 continued to increase over the past few years, more so than any other age group. These data suggest that crashes associated with cell phone use could continue an overall upward trend, especially among this younger age cohort with a strong affinity for cell phones in their lives.

Indiana crash data are now linked with driver history data, made available by the Indiana Bureau of Motor Vehicles (BMV). For each driver involved in Indiana crashes, the BMV provides a history of citations issued and changes in driver license status going back five years prior to the crash. These data reveal significant results on the effects of "problem" drivers in Indiana traffic crashes. Compared to drivers with little to no record of previous traffic violations, habitual traffic violators, drivers with suspended licenses, and drivers with revoked or no licenses are more likely to cause crashes that result in serious injury and loss of life. Future policy should include research and strategies aimed at reducing crashes involving recidivist violators.

This fact sheet uses data from several sources (see last page for full references). Indiana crash data come primarily from the Indiana State Police Automated Reporting Information Exchange System (ARIES), current as of March 1, 2011.

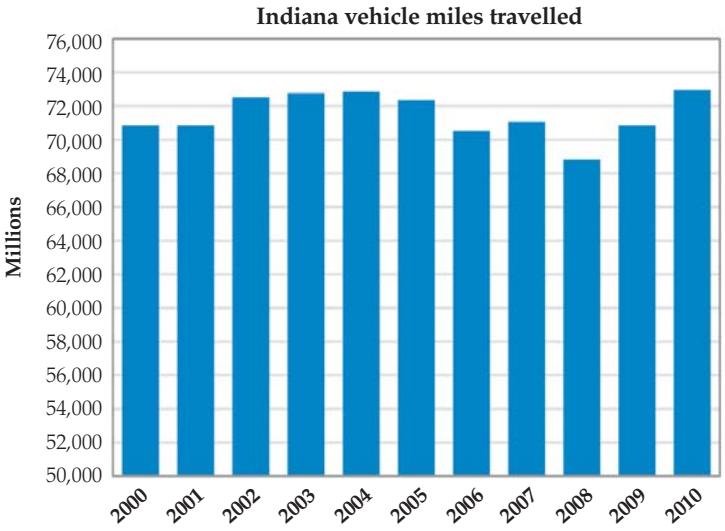
In Indiana in 2010:

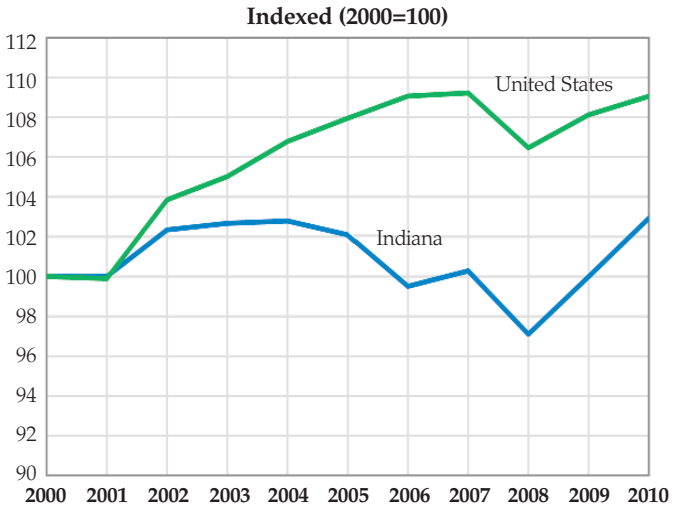
- **518 drivers killed in crashes**
- **Per 100m VMT, 1.41 drivers were involved in fatal crashes, the lowest rate in the last 15 years**
- **Per 10,000 licensed drivers, there were 543 drivers involved in crashes**
- **1 of every 273 drivers involved in crashes was in a fatal crash**
- **Rates of cell phone use in crashes among teen drivers declined from .78% before GDL implementation to .48% afterward**
- **Drivers ages 15 to 20 represent 10 percent of all licensed drivers and 15 percent of all drivers in crashes**
- **15 percent of all drivers in crashes had a non-valid license status**
- **21 percent of drivers in fatal crashes had a non-valid license status**

GENERAL TRENDS

After a general decline in vehicle travel from 2005 through 2008, overall road usage increased in 2009 and 2010 (Figure 1a). Growth in Indiana vehicle travel has generally lagged that of the nation though there have been considerable increases since 2009 (Figure 1b). The number of drivers involved in fatal crashes has declined since 2000, both nationally and in Indiana (Table 1). Per 100 million vehicle miles travelled, the rate of drivers in fatal crashes in Indiana has been consistently lower than that of the nation. In 2009, Indiana's driver fatal crash rate was ranked 19th in the nation. Since 2000, the fatal crash rate of Indiana drivers has decreased at an annual rate of about three percent, slower than that of the nation. However, since 2005 the Indiana rate decreased faster (6.4 percent decrease annually) than did the nation. The Indiana rate for 2009 was lower than at any other time in the last 15 years.

Figures 1a & 1b. Vehicle miles travelled, 2000 - 2010
actual and indexed (2000=100)





Sources: Federal Highway Administration; Bureau of Transporatation Statistics

Table 1. Rate of drivers involved in fatal crashes, 2000-2009
per 100 million vehicle miles travelled, by region

Geography	Rate of drivers										Annual rate of change	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2000-9	2005-9
INDIANA	1.81	1.81	1.59	1.71	1.85	1.83	1.76	1.73	1.59	1.41	-2.8%	-6.4%
UNITED STATES	2.08	2.10	2.03	2.02	1.97	1.98	1.92	1.85	1.70	1.55	-3.2%	-5.9%
Upper New England (CT, ME, MS, NH, RI, VT)	1.32	1.39	1.33	1.31	1.34	1.27	1.25	1.17	1.10	1.04	-2.7%	-5.0%
Lower New England (NJ, NY, PA)	1.73	1.77	1.72	1.68	1.62	1.64	1.57	1.55	1.44	1.31	-3.0%	-5.4%
Mid-Atlantic (DE, DC, KY, MD, NC, VA, WV)	2.11	2.16	2.09	2.17	2.05	1.99	1.98	1.96	1.73	1.67	-2.6%	-4.3%
Southern Atlantic (AL, FL, GA, SC, TN)	2.57	2.62	2.37	2.34	2.37	2.47	2.39	2.26	2.08	1.88	-3.4%	-6.6%
Great Lakes (IL, IN, MI, MN, OH, WI)	1.89	1.83	1.79	1.78	1.67	1.69	1.55	1.57	1.41	1.26	-4.4%	-7.1%
Southern Central (LA, MS, NM, OK, TX)	2.47	2.45	2.45	2.42	2.36	2.27	2.21	2.12	2.08	1.90	-2.9%	-4.3%
Central (AR, IA, KS, MO, NE)	2.36	2.23	2.34	2.30	2.17	2.27	2.12	2.04	1.86	1.81	-2.9%	-5.5%
West (CO, NV, ND, SD, UT, WY)	2.17	2.24	2.18	2.06	2.10	1.97	1.89	1.73	1.64	1.52	-3.9%	-6.3%
Pacific (AZ, CA, HI)	1.81	1.89	1.87	1.89	1.85	1.88	1.92	1.77	1.53	1.34	-3.3%	-8.2%
Upper Northwest (AK, ID, MT, OR, WA)	1.93	1.91	1.84	1.84	1.71	1.86	1.78	1.69	1.59	1.52	-2.6%	-4.9%

Note: Geographic regions are defined by the National Highway Traffic Safety Administration.

Sources: Fatality Analysis Reporting System; Bureau of Transportation Statistics

TRENDS

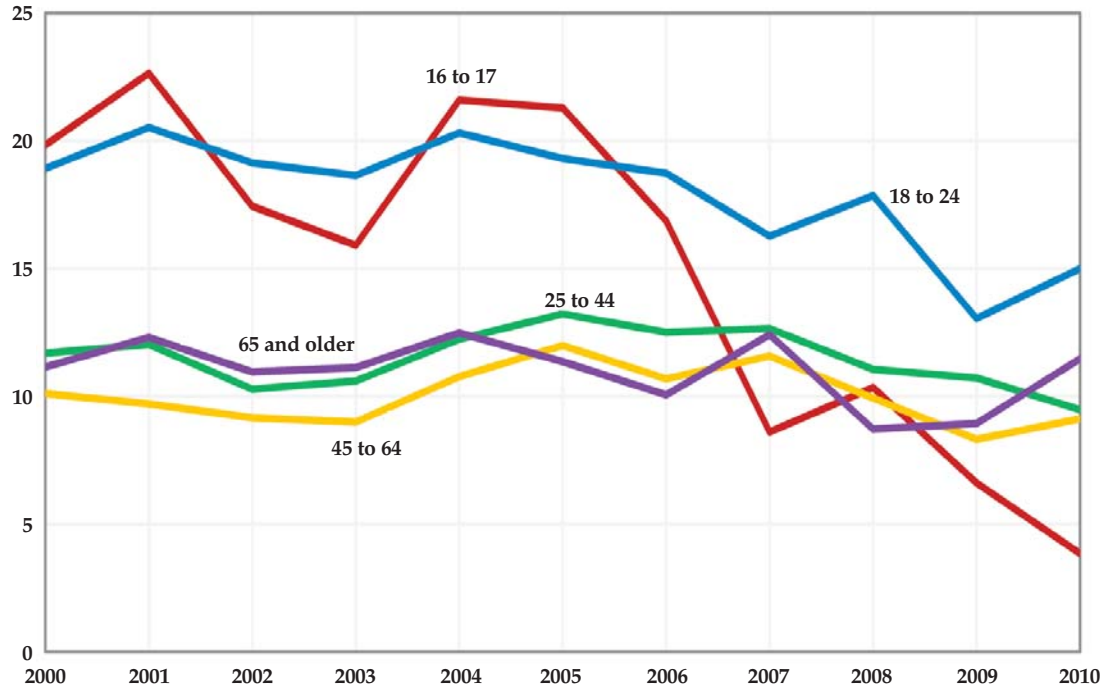
Since 2000, the number of drivers involved in fatal crashes has decreased 1.2 percent annually (Table 2). Percentage declines were greatest among drivers ages 16 to 17 (14.9 percent annually since 2000 and 31 percent annually since 2006). However, from 2009 to 2010, there were large increases in the number of 18-20 year old drivers killed (42 percent) and drivers 55 years and older (27 percent). Per 100,000 population, the rate of drivers involved decreased significantly among younger drivers, whereas rates for older drivers remained relatively constant (Figure 2).

Table 2. Drivers killed in Indiana crashes, 2000-2010
by age group

Age group	Count of drivers											Annual rate of change		
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2000-10	2006-10	2009-10
15 years	1	2	-	1	2	-	-	-	1	2	1	--	--	--
16 to 17	35	40	31	28	38	38	31	16	19	12	7	-14.9%	-31.1%	-41.7%
18 to 20	54	63	61	55	58	44	58	54	58	33	48	-1.2%	-4.6%	45.5%
21 to 24	63	66	60	64	72	79	61	49	56	51	50	-2.3%	-4.8%	-2.0%
25 to 34	104	91	89	86	120	116	102	117	115	90	76	-3.1%	-7.1%	-15.6%
35 to 44	105	122	91	98	91	111	112	99	73	91	83	-2.3%	-7.2%	-8.8%
45 to 54	89	80	85	77	95	106	93	110	102	89	95	0.7%	0.5%	6.7%
55 to 64	48	55	46	55	67	79	76	77	61	50	61	2.4%	-5.3%	22.0%
65 to 74	41	44	39	37	43	42	37	47	31	36	52	2.4%	8.9%	44.4%
75 and older	43	49	44	48	53	46	42	52	40	38	45	0.5%	1.7%	18.4%
TOTAL	**583**	**612**	**546**	**549**	**639**	**661**	**612**	**621**	**556**	**492**	**518**	**-1.2%**	**-4.1%**	**5.3%**

Sources: Fatality Analysis Reporting System (2000-9); Indiana State Police (2010)

Figure 2. Rate of drivers killed in Indiana crashes, 2000-2010
per 100,000 population, by age group



Note: Population data for 2010 extrapolated from 2000-2009 data

Sources: Fatality Analysis Reporting System (2000-2009); Indiana State Police (2010); US Census Bureau

TRENDS (continued)

One in every 570 drivers involved in Indiana crashes in 2010 was fatally injured (0.18 percent of 294,032 involved) (Table 3). Among all drivers involved, older drivers (ages 75 and older) were most likely to have been involved in fatal crashes (Table 4). This finding is partly because of the increased susceptibility to injury among older people. Since 2006, the number of drivers involved in all crashes has decreased marginally, though the implementation of Graduated Driver Licensing produced a significant decline in teen drivers involved (7.5 percent for 16 to 17 year olds and 9.4 percent for 15 year olds) (Table 5).

Tables 3 & 4. Drivers involved in Indiana crashes, 2010
by age group, injury status, and crash severity

Driver age	Count by Injury Status						
	Fatal	Incapa-citating	Non-incapaci-tating	Other injury status	Not injured	TOTAL	Percent fatal
15 years	1	9	60	7	270	347	0.29%
16 to 17	7	88	1,659	163	13,208	15,125	0.05%
18 to 20	48	192	3,192	266	26,207	29,905	0.16%
21 to 24	50	223	3,178	217	27,505	31,173	0.16%
25 to 34	76	478	5,813	454	50,398	57,219	0.13%
35 to 44	83	381	5,064	379	44,033	49,940	0.17%
45 to 54	95	402	4,960	358	42,382	48,197	0.20%
55 to 64	61	267	3,551	258	30,281	34,418	0.18%
65 to 74	52	146	1,626	138	14,761	16,723	0.30%
75 and older	45	78	1,173	94	9,595	10,985	0.41%
TOTAL	**518**	**2,265**	**30,276**	**2,333**	**258,640**	**294,032**	**0.18%**

Driver age	Count by Crash Severity					
	Fatal	Incapa-citating	Non-inca-pacitating	Property damage	TOTAL	Percent fatal
15 years	2	11	83	251	347	0.58%
16 to 17	30	209	2,896	11,990	15,125	0.20%
18 to 20	91	455	5,782	23,577	29,905	0.30%
21 to 24	104	481	5,657	24,931	31,173	0.33%
25 to 34	190	911	10,453	45,665	57,219	0.33%
35 to 44	178	750	8,981	40,031	49,940	0.36%
45 to 54	212	741	8,668	38,576	48,197	0.44%
55 to 64	124	545	6,220	27,529	34,418	0.36%
65 to 74	81	264	2,966	13,412	16,723	0.48%
75 and older	66	161	2,066	8,692	10,985	0.60%
TOTAL	**1,078**	**4,528**	**53,772**	**234,654**	**294,032**	**0.37%**

Source: Indiana State Police

Table 5. Drivers involved in Indiana crashes, 2006-2010
by age group

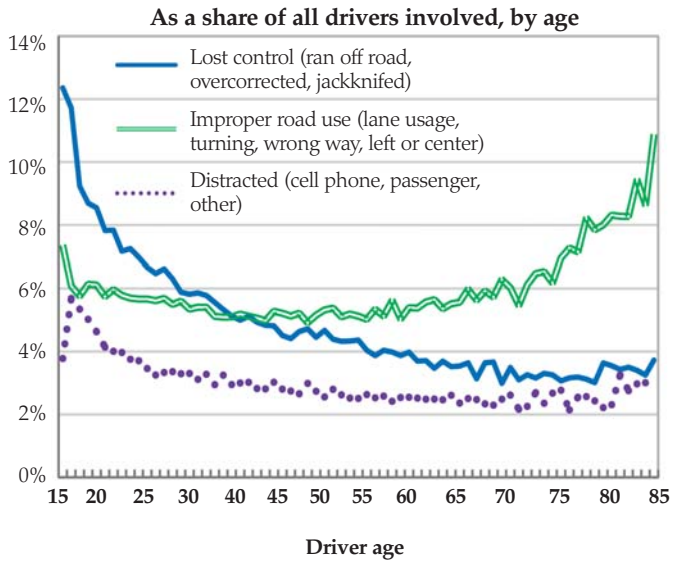
Driver age	Count by year					Annual rate of change	
	2006	2007	2008	2009	2010	2006-10	2009-10
15 years	515	508	430	450	347	-9.4%	-22.9%
16 to 17	20,632	20,337	18,990	17,081	15,125	-7.5%	-11.5%
18 to 20	30,953	32,179	31,508	30,484	29,905	-0.9%	-1.9%
21 to 24	32,053	33,453	32,276	30,205	31,173	-0.7%	3.2%
25 to 34	57,594	61,277	60,863	55,853	57,219	-0.2%	2.4%
35 to 44	52,826	55,157	53,800	48,461	49,940	-1.4%	3.0%
45 to 54	46,627	49,849	50,373	46,278	48,197	0.8%	4.1%
55 to 64	30,142	32,380	33,594	32,445	34,418	3.4%	6.1%
65 to 74	14,277	15,264	15,672	15,742	16,723	4.0%	6.2%
75 and older	10,986	11,007	10,906	10,739	10,985	0.0%	2.3%
TOTAL	**296,605**	**311,411**	**308,412**	**287,738**	**294,032**	**-0.2%**	**2.2%**

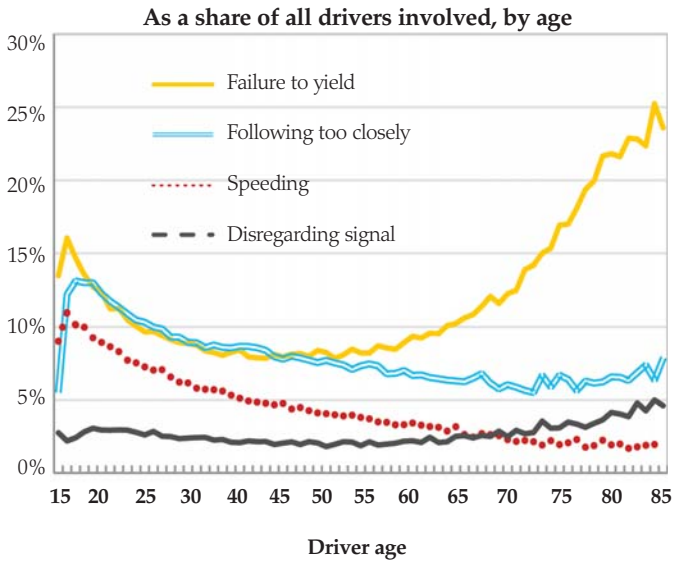
Source: Indiana State Police

DRIVER BEHAVIOR AND CRASH CIRCUMSTANCES

Driving behavior in crashes varies considerably by age. Younger drivers have been generally more likely to have lost control and been distracted while in a collision, whereas older drivers were more likely to have engaged in improper road use actions. Among more risky driving behavior, younger drivers were more likely to have been following too closely to other vehicles and/or speeding, compared to older drivers who were more likely to have failed to yield right of way (Figures 3a and 3b). These differences provide evidence that supports the notion of younger drivers causing accidents from a lack of experience and aggressive behavior and older drivers causing accidents from a decline in cognitive reactions and awareness of environmental conditions. In general, younger drivers are more likely to have crashed into a stationary object or to have gone off the road entirely, compared to older drivers who are more likely to have crashed with another vehicle or a non-motorist. (Table 6).

Figures 3a & 3b. Rates of driving behaviors in Indiana crashes, 2006–2010
as a share of all drivers involved, by driver age and contributing factor





Source: Indiana State Police

Tables 6. Drivers involved in various crash types in Indiana, 2006–2010
by object collided with, as a percent of age group total

Driver age	Another vehicle	Stationary object (bridge, post, etc.)	Deer/ Other animal	Offroad crash	Non-motorist	Overturn/ Rollover	Other	TOTAL
15 years	71.6%	11.9%	1.7%	7.5%	0.9%	1.1%	5.4%	100%
16 to 17	76.1%	9.6%	2.3%	8.1%	0.7%	0.8%	2.4%	100%
18 to 20	77.2%	8.8%	3.6%	6.7%	0.7%	0.6%	2.4%	100%
21 to 24	77.2%	8.6%	4.5%	5.7%	0.8%	0.6%	2.6%	100%
25 to 34	78.1%	7.4%	5.8%	4.7%	0.8%	0.5%	2.8%	100%
35 to 44	78.8%	6.1%	7.1%	3.9%	0.8%	0.5%	2.9%	100%
45 to 54	79.4%	5.4%	7.8%	3.4%	0.8%	0.4%	2.8%	100%
55 to 64	81.1%	4.7%	7.4%	2.9%	0.9%	0.3%	2.7%	100%
65 to 74	83.9%	4.2%	5.7%	2.6%	1.0%	0.2%	2.4%	100%
75 and older	87.2%	4.7%	2.4%	2.4%	1.2%	0.1%	2.1%	100%
TOTAL	**79.1%**	**6.7%**	**5.8%**	**4.5%**	**0.8%**	**0.5%**	**2.7%**	100%

Low
High

Source: Indiana State Police

EFFECTS OF PASSENGERS

Younger drivers are more likely to crash when there are passengers in their vehicles, especially so in fatal crashes (Table 7). In 2010, 63 percent of drivers ages 16 to 17 in fatal crashes had a passenger with them, nearly double the rate of older age groups. With the exception of teen drivers, the presence of passengers appears to have a positive effect on driver behavior (Table 8). The risk of improper road use and disregarding traffic signals among teen drivers increases when passengers are present. In contrast, older drivers with passengers in their vehicle are less likely to lose control of the vehicle, to follow other vehicles too closely, and to engage in improper road use.

Table 7. Drivers with passengers in Indiana crashes, 2006-2010
by age group and crash severity

Driver age	All Collisions							Fatal Collisions						
	Count with passengers					2010 TOTAL	2010 Percent	Count with passengers					2010 TOTAL	2010 Percent
	2006	2007	2008	2009	2010			2006	2007	2008	2009	2010		
15 years	386	366	325	323	229	347	66%	-	-	-	1	1	2	50%
16 to 17	7,998	7,470	7,072	6,427	5,690	15,125	38%	32	30	27	22	19	30	63%
18 to 20	10,681	10,725	10,402	10,502	10,086	29,905	34%	45	42	40	41	34	91	37%
21 to 24	9,643	9,732	9,430	8,960	9,276	31,173	30%	52	32	45	30	37	104	36%
25 to 34	18,614	18,977	18,776	17,645	17,922	57,219	31%	75	75	65	52	72	190	38%
35 to 44	16,087	16,072	15,762	14,789	15,018	49,940	30%	67	54	54	58	49	178	27%
45 to 54	11,565	11,765	12,077	11,500	11,875	48,197	25%	42	61	45	32	45	212	21%
55 to 64	7,218	7,462	7,722	7,899	8,154	34,418	24%	28	39	36	25	33	124	27%
65 to 74	4,160	4,361	4,602	4,508	4,771	16,723	29%	23	23	20	23	28	81	35%
75 and older	2,866	2,749	2,779	2,781	2,797	10,985	25%	17	21	14	17	25	66	38%
TOTAL	**89,218**	**89,679**	**88,947**	**85,334**	**85,818**	**294,032**	**29%**	**381**	**377**	**346**	**301**	**343**	**1,078**	**32%**

Source: Indiana State Police

Table 8. Driver behavioral risk factors associated with vehicle passengers, 2006-2010
by age group

Driver actions	15 years	16 to 17	18 to 20	21 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 and older	ALL AGES
Lost control (ran off road, overcorrected, jackknifed)	0.77	0.85	0.86	0.79	0.72	0.67	0.67	0.64	0.70	0.62	0.79
Improper road use (lane usage, turning, wrong way, left of center)	0.85	1.14	1.16	1.05	0.96	0.88	0.92	0.92	0.88	0.89	0.98
Distracted (cell phone, passenger, other distraction)	1.09	0.84	0.78	0.82	0.95	0.86	0.70	0.68	0.65	0.66	0.85
Failure to yield	0.86	1.04	1.05	1.07	1.03	0.99	0.93	0.83	0.74	0.81	0.98
Following too closely	0.65	0.92	0.83	0.76	0.76	0.75	0.65	0.62	0.65	0.78	0.79
Speeding	0.61	1.03	0.98	0.90	0.81	0.81	0.80	0.84	0.93	0.91	0.95
Disregarding signal	0.53	1.20	1.18	1.00	1.09	0.97	0.90	0.78	0.78	0.78	1.00

When passengers are present…

Risk DECREASES ... 0.90 0.95 **(No difference)** 1 1.05 1.10 ... **Risk INCREASES**

Note: Risk factor is the ratio of the percent of drivers engaged in action when passengers were present, compared to the percent engaged in behavior without passengers. Values greater than 1 indicate an increased risk of behavior with passengers; values less than 1 indicate a reduction in risk when passengers are present.

Source: Indiana State Police

CELL PHONE USE

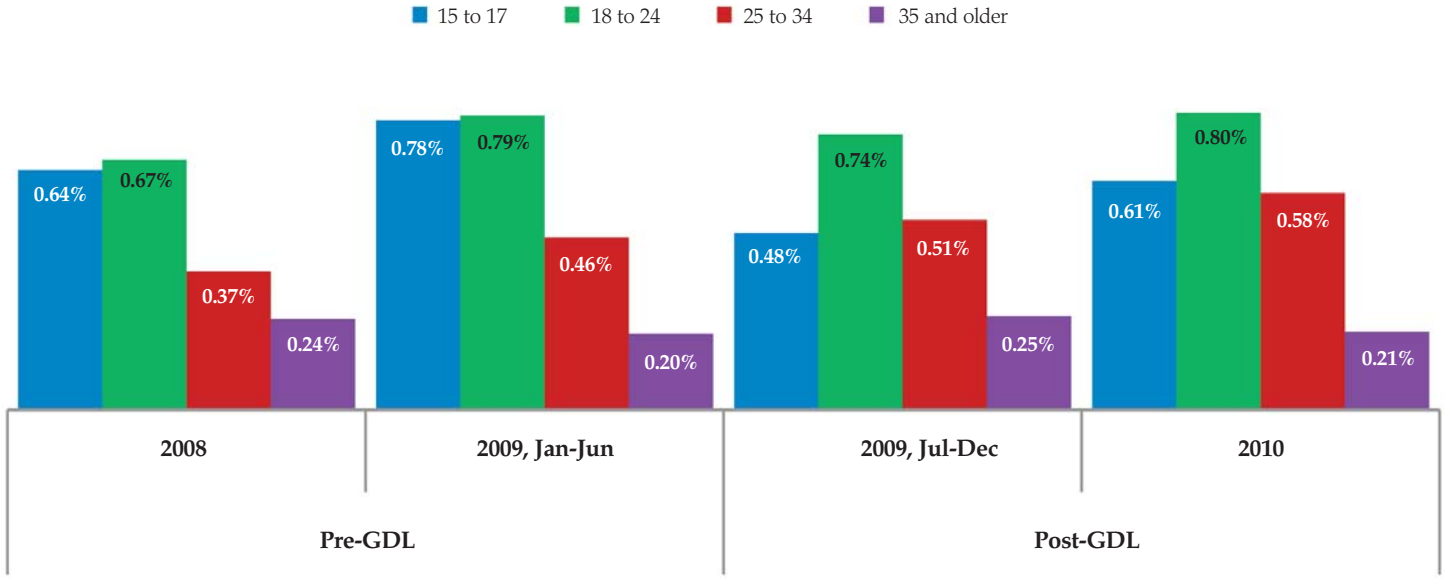
In 2010, 0.43 percent of all drivers in crashes were using a cell phone (Table 9). Rates of cell phone use in crashes were highest among drivers ages 18 to 24, with a general decline in usage rates as age increases. Restrictions on cell phone use among drivers under age 18 (in effect as of July 1, 2009) have had an impact on reducing or at least controlling the growth in crashes related to cell phone use (Figure 4). Among drivers under age 18 in crashes in the six months prior to the restriction, there were about 78 using a cell phone for every 10,000 involved. In the six months after the restriction was enacted, this rate dropped to 48 per 10,000 involved.

Table 9. Drivers using a cell phone in Indiana crashes, 2006-2010
by age group

Driver age	All Collisions							Fatal Collisions						
	Count using a cell phone					2010 TOTAL	2010 Percent	Count using a cell phone					2010 TOTAL	2010 Percent
	2006	2007	2008	2009	2010			2006	2007	2008	2009	2010		
15 years	2	1	-	-	2	347	0.58%	-	-	-	-	-	2	0%
16 to 17	174	128	125	109	93	15,125	0.61%	1	-	-	-	-	30	0%
18 to 20	232	243	238	229	256	29,905	0.86%	-	1	2	-	1	91	1.10%
21 to 24	182	240	190	235	231	31,173	0.74%	-	-	1	-	2	104	1.92%
25 to 34	222	268	226	272	333	57,219	0.58%	-	-	1	1	-	190	0%
35 to 44	178	158	182	178	158	49,940	0.32%	-	-	-	-	-	178	0%
45 to 54	94	114	123	106	109	48,197	0.23%	-	-	-	-	-	212	0%
55 to 64	60	60	68	46	46	34,418	0.13%	-	-	-	1	1	124	0.81%
65 to 74	15	18	20	16	19	16,723	0.11%	-	-	-	-	-	81	0%
75 and older	11	7	7	6	5	10,985	0.05%	-	-	-	-	-	66	0%
TOTAL	**1,170**	**1,237**	**1,179**	**1,197**	**1,252**	**294,032**	**0.43%**	**1**	**1**	**4**	**2**	**4**	**1,078**	**0.37%**

Source: Indiana State Police

Figure 4. Percent of drivers reported to be using a cell phone in Indiana, 2008-2010
by age group



Note: The GDL provision prohibiting cell phone use among drivers under age 18 took effect July 1, 2009.

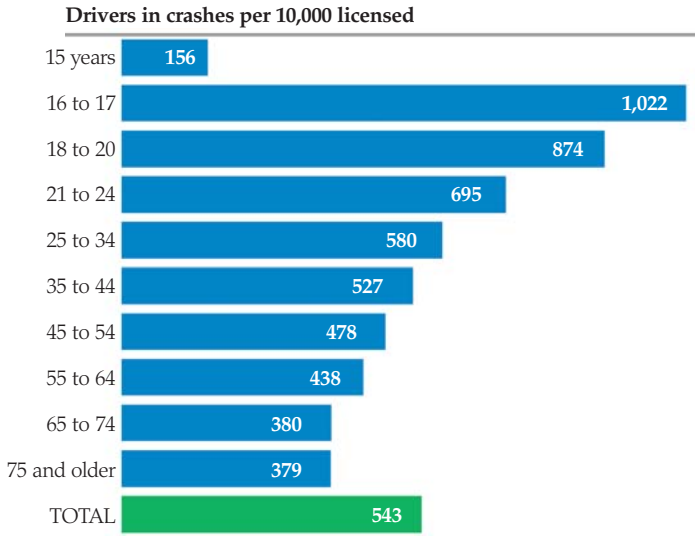
Source: Indiana State Police

DRIVER LICENSING

Drivers ages 16 to 17 comprised 2.8 percent of total licenses and 5.1 percent of drivers in crashes (Table 10). Per 10,000 operator licenses, this age group had the highest crash rate in 2010 (Figure 5). By license status, drivers ages 21 to 44 in Indiana crashes were most likely to have been driving with a non-valid license. Over 15 percent of all drivers involved in crashes were driving without a proper permit (Table 11). In general, one of every six drivers involved in crashes in 2010 did not have a valid license.

Table 10 & Figure 5. Driver licensing and crash rates, 2010
total licensed and in crashes per 10,000 licensed

Driver Age	Operator licenses		Drivers in crashes	
	Count	Percent	Count	Percent
15 years	22,241	0.4%	347	0.1%
16 to 17	153,973	2.8%	15,125	5.1%
18 to 20	342,054	6.3%	29,905	10.2%
21 to 24	448,243	8.3%	31,173	10.6%
25 to 34	985,782	18.2%	57,219	19.5%
35 to 44	946,840	17.5%	49,940	17.0%
45 to 54	1,009,200	18.6%	48,197	16.4%
55 to 64	786,466	14.5%	34,418	11.7%
65 to 74	440,348	8.1%	16,723	5.7%
75 and older	290,057	5.3%	10,985	3.7%
TOTAL	**5,425,204**	**100%**	**294,032**	**100%**



Sources: Indiana Bureau of Motor Vehicles, Indiana State Police

Table 11. License status of drivers in Indiana crashes, 2010
where status was known at the time of crash, by driver age

License status	15 years	16 to 17	18 to 20	21 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 and older	TOTAL
Valid	174	14,194	24,499	19,198	36,121	35,555	36,587	27,714	14,110	9,798	217,950
Suspended for infraction	3	25	1,677	6,691	9,764	6,109	4,328	1,878	594	254	31,323
Suspended for prior conviction	-	2	6	233	1,902	1,030	479	117	24	7	3,800
Suspended for misdemeanor	-	4	40	143	322	151	130	32	6	2	830
Revoked license	3	110	423	158	469	367	184	66	19	31	1,830
Unlicensed	28	63	290	343	425	194	109	56	25	7	1,540
Habitual traffic violator	-	-	-	5	78	85	55	29	2	-	254
Other status	-	21	43	69	137	90	64	22	10	10	466
TOTAL (where status known)	**208**	**14,419**	**26,978**	**26,840**	**49,218**	**43,581**	**41,936**	**29,914**	**14,790**	**10,109**	**257,993**
Percent non-valid	16.3%	1.6%	9.2%	28.5%	26.6%	18.4%	12.8%	7.4%	4.6%	3.1%	15.5%
Suspended	1.4%	0.2%	6.4%	26.3%	24.4%	16.7%	11.8%	6.8%	4.2%	2.6%	13.9%
Unlicensed/revoked	14.9%	1.2%	2.6%	1.9%	1.8%	1.3%	0.7%	0.4%	0.3%	0.4%	1.3%
Other non-valid	0%	0.1%	0.2%	0.3%	0.4%	0.4%	0.3%	0.2%	0.1%	0.1%	0.3%

Sources: Indiana Bureau of Motor Vehicles, Indiana State Police

DRIVER LICENSING

Indiana crash data suggest that severe crashes are more likely to involve "problem" drivers (Table 12). In 2010, about one in every five drivers (21 percent) involved in crashes with fatal or incapacitating injuries had a non-valid license status. For crashes with only property damage, one in every seven had a non-valid license. In fact, habitual traffic violators have the highest fatal crash rate of any driver license type (Figures 6a and 6b).[1] For every 1,000 habitual violators in non-fatal crashes, there are about 12 in fatal crashes, a rate more than 35 percent higher than any other license status. Habitual violators are also most likely to have directly contributed to the occurrence of the crash (74 percent of the time in 2010).

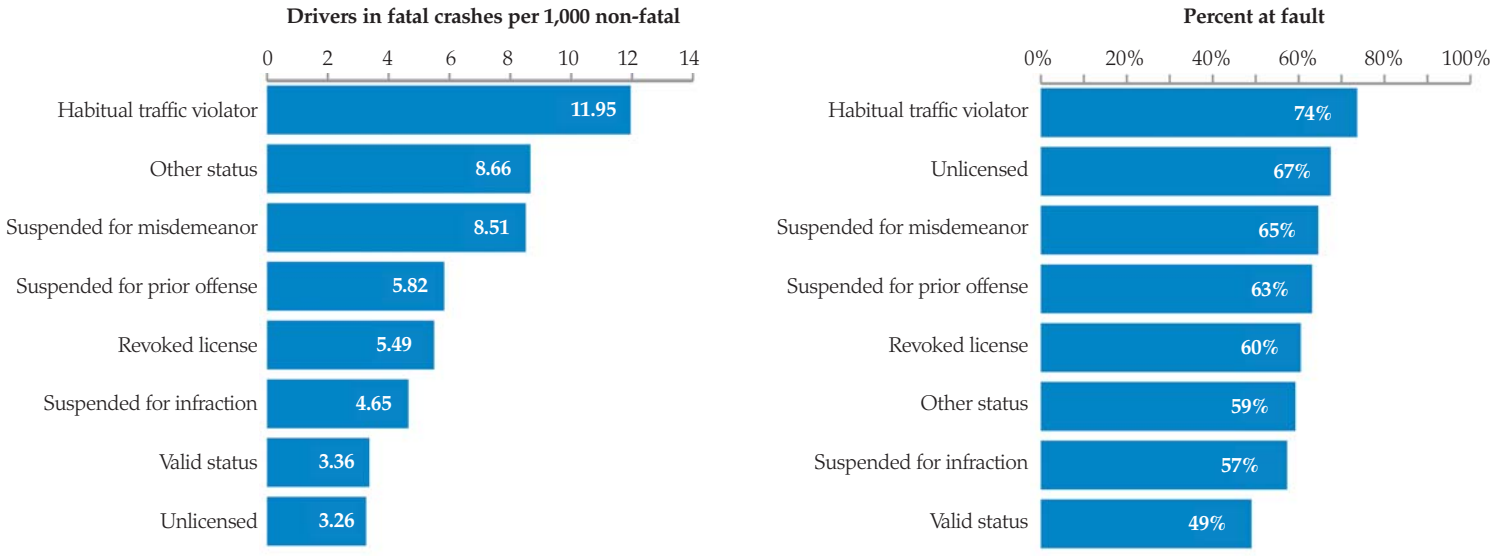
Table 12. Drivers involved in Indiana crashes by license status and crash severity, 2010

License status	Crash severity				
	Fatal	Incapacitating	Non-incapacitating	Property damage	TOTAL
Valid	730	3,112	39,066	175,047	217,955
Suspended for infraction	145	616	6,414	24,148	31,323
Suspended for prior conviction	29	121	1,074	3,406	4,630
Revoked/Unlicensed	15	65	736	2,554	3,370
Habitual traffic violator	3	21	89	141	254
Other	4	5	90	367	466
TOTAL	**926**	**3,940**	**47,469**	**205,663**	**257,998**
Percent with non-valid status	21.2%	21.0%	17.7%	14.9%	15.5%

Note: Limited to drivers where license status was known at the time of the crash.

Sources: Indiana Bureau of Motor Vehicles, Indiana State Police

Figures 6a & 6b. Rates of drivers involved in fatal crashes by license status, 2010



Notes: (1) Limited to drivers where license status was known at the time of the crash, (2) *At fault* applies when the investigating officer reports a driver contributing factor that is also the primary factor to the occurrence of the crash.

Sources: Indiana Bureau of Motor Vehicles, Indiana State Police

[1]*Habitual traffic violator* is defined as a person that has violated at least two serious traffic codes within a ten-year period. These offenses include reckless homicide, failure to stop at an accident causing death or injury, OWI causing death, etc. See pursuant to IC 9-30-10-4 for details on this classification.

TRAFFIC OFFENSES

Police officers have issued and won convictions on approximately 500,000 traffic offenses a year since 2006 (Table 13). Citations issued for most offense types have remained relatively constant over time, though some types have increased significantly. Drivers with a history of chronic traffic offenses are more likely to contribute directly to the occurrence of crashes and also to be involved in fatal crashes (Figures 7 and 8). Drivers with 10 or more traffic offense convictions were at fault 66 percent of the time in 2010, compared to 50 percent for drivers with no previous convictions. For every 1,000 drivers with 10 or more convictions involved in crashes, 8 were in fatal crashes, a rate nearly twice that of all drivers with fewer convictions.

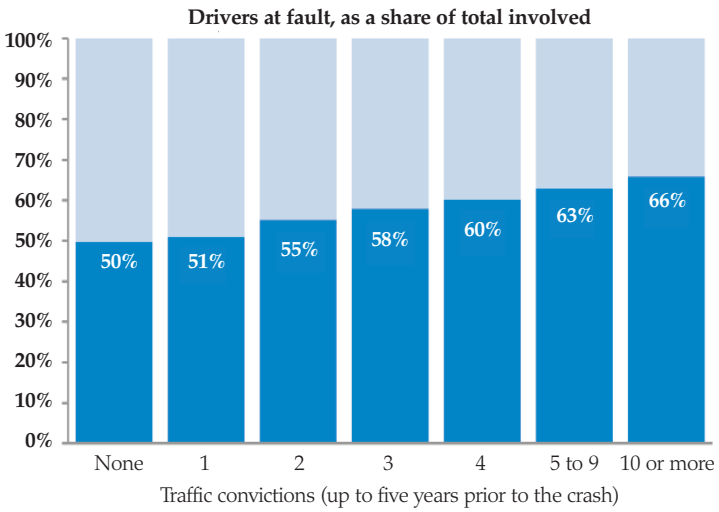
Table 13. Convictions for traffic offenses, 2003-2010

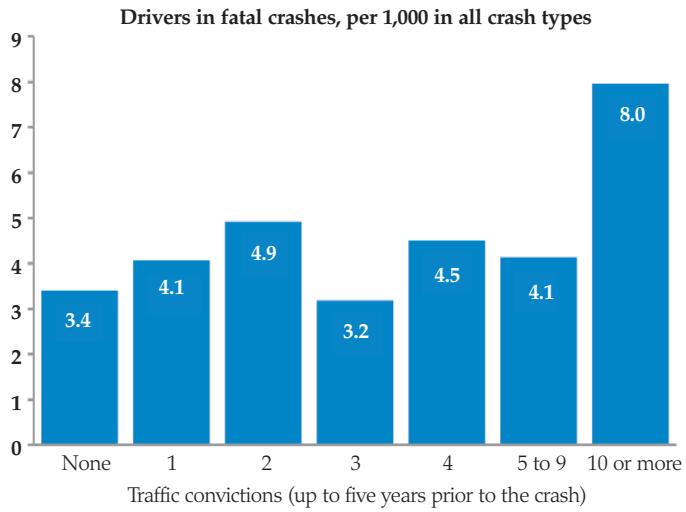
Offense type	Count by year					Annual rate of change	
	2006	2007	2008	2009	2010	2006-10	2009-10
Speeding	209,893	199,632	200,049	212,065	190,386	-2.4%	-10.2%
Seat belt violation	102,726	106,819	136,456	147,324	127,581	5.6%	-13.4%
Failure to stop for accident	39,314	39,373	40,512	34,801	30,469	-6.2%	-12.4%
Disregarding signal	25,781	21,920	25,924	31,087	27,084	1.2%	-12.9%
Driving while suspended	33,642	27,361	25,728	32,007	26,718	-5.6%	-16.5%
No license	25,012	21,016	20,760	28,459	22,832	-2.3%	-19.8%
OWI/Probable Cause	28,974	21,553	19,998	27,736	19,391	-9.6%	-30.1%
Dangerous driving	7,465	5,996	6,935	8,605	8,304	2.7%	-3.5%
Improper road use	3,022	3,448	4,496	5,402	6,819	22.6%	26.2%
Driving without insurance	5,853	5,189	4,672	6,665	5,727	-0.5%	-14.1%
Failure to yield on roadway	3,637	3,066	3,928	4,337	4,383	4.8%	1.1%
License violations	2,474	2,182	1,887	2,189	1,972	-5.5%	-9.9%
Other	17,995	20,156	21,538	27,617	20,843	3.7%	-24.5%
TOTAL	**505,788**	**477,711**	**512,883**	**568,294**	**492,509**	**-0.7%**	**-13.3%**

Note: Excludes non-pointable (i.e., violations that do not incur points on a driver's record) and non-vehicle related violations

Source: Indiana Bureau of Motor Vehicles

Figures 7 & 8. Drivers in crashes by offense history, 2010
by driver age





Notes: (1) Excludes non-pointable and non-vehicle related violations. (2) *At fault* applies when the investigating officer reports a driver contributing factor that is also the primary factor to the occurrence of the crash.

Sources: Indiana Bureau of Motor Vehicles, Indiana State Police

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Ball, K., Owsley, C., Stalvey, B., Roenker, D.L., Sloane, M.E., & Graves, M. (1998). Driving avoidance and functional impairment in older drivers. *Accident Analysis and Prevention, 30*, 313-22.

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Stutts, J., Martell, C., Staplin, L. (2009). Identifying behaviors and situations associated with increased crash risk for older drivers. National Highway Traffic Safety Administration DOT HS 811 093.

DATA SOURCES

Data in this fact sheet come from the following sources:

- Indiana State Police Automated Reporting Information Exchange System (ARIES), current as of March 1, 2011
- Indiana Bureau of Motor Vehicles, current as of March 1, 2011
- Bureau of Transportation Statistics, State Transportation Statistics, current as of March 15, 2011 http://www.bts.gov/publications/state_transportation_statistics/
- Fatality Analysis Reporting System, National Highway Traffic Safety Administration, current as of February 1, 2011. http://www-fars.nhtsa.dot.gov/Main/index.aspx
- Federal Highway Administration, Traffic Volume Trends, current as of March 15, 2011. http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm
- US Census Bureau, 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, 2009. http://www.census.gov/popest/states/asrh/

This publication was prepared on behalf of the Indiana Criminal Justice Institute (ICJI) 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.

This publication is one of a series of fact sheets that, along with the annual Indiana Crash Fact Book, form the analytical foundation of traffic safety program planning and design in the state of Indiana. Funding for these publications is provided by the ICJI and the National Highway Traffic Safety Administration.

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.

Traffic Safety Project

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 2010 vehicle crash data from the Automated Reporting Information Exchange System (ARIES), maintained by the Indiana State Police. This marks the fifth 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, 2010, approximately 99 percent of all collisions are entered electronically through 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.

The Indiana Criminal Justice Institute

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 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

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.

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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