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YOUNG DRIVERS : 2015



IN 2015:

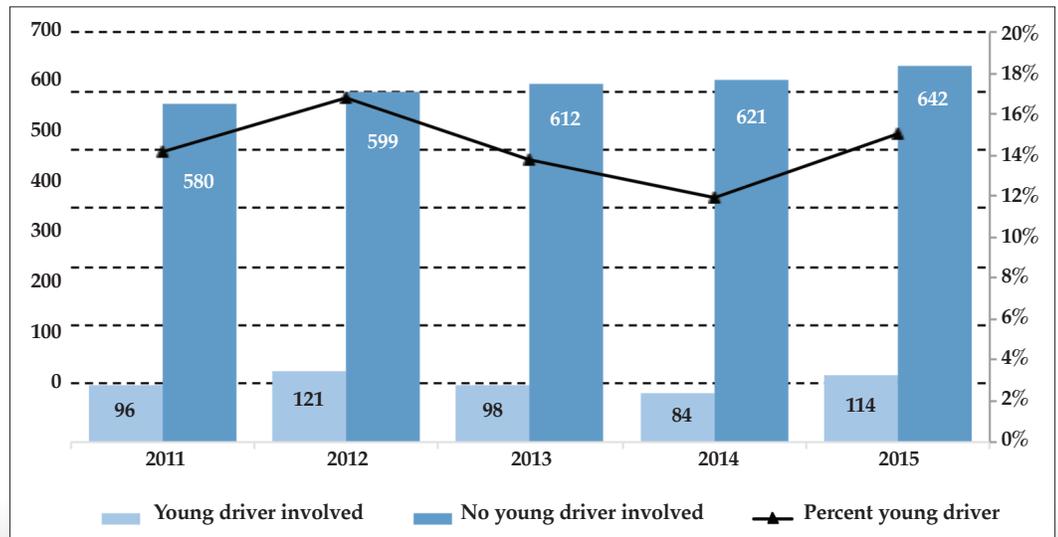
- **13 percent** of all drivers involved in collisions were young drivers.
- Young drivers were involved in 114 fatal collisions, a **24 percent increase** from 2014.
- There were 52 young driver fatalities in 2015, a **53 percent increase** from 2014.
- Young drivers suffered **4,705 non-fatal injuries**.
- Approximately **3 percent** of young drivers in fatal collisions were alcohol impaired.
- About **78 percent** of young drivers of motor vehicles involved in fatal collisions were properly restrained.
- Only **one-third of 15-20 year old operators** in fatal motorcycle collisions wore a helmet.

INTRODUCTION

Motor vehicle collisions remain a leading cause of death for persons 15 to 20 years of age in the United States. Nationally in 2013 (most recent data available), 1,691 young drivers were killed in collisions, and approximately 177,000 young drivers were injured in motor vehicle collisions (NHTSA, 2015). This fact sheet presents information on young drivers involved in Indiana collisions in 2015, trends from 2011 to 2015, as well as a review of restraint use, alcohol involvement, and other selected factors. Other driver age groups are examined in this fact sheet for purposes of comparison to the young driver group. The Indiana collision data come from the Indiana State Police Automated Reporting Information Exchange System (ARIES), current as of March 17, 2016.

In Indiana, a total of 44,095 young drivers (ages 15 to 20) were involved in traffic collisions in 2015 (Table 1), an increase of 9 percent from 2014. All driver age groups experienced increased collision involvement in 2015, with the steepest increases reflected among 15 to 17 year old drivers (Table 1). There were 114 fatal collisions involving 116 young drivers in 2015, a 28 percent jump from 2014 and the highest count since 2012 (Figure 1). There were 52 young drivers killed in 2015. Another 4,705 young drivers sustained some type of injury in 2015.

Figure 1. Indiana fatal collisions by young driver involvement, 2011-2015



Source: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016



Table 1. Drivers in Indiana collisions by age group, 2011-2015

Driver age	Count of drivers					Annual rate of change	
	2011	2012	2013	2014	2015	2014-15	2011-15
Total drivers	287,736	289,756	294,129	314,724	333,718	6.0%	3.8%
15 to 20 years	40,613	40,497	39,863	40,504	44,095	8.9%	2.1%
15	272	344	289	343	454	32.4%	13.7%
16	3,578	3,445	3,317	3,138	3,894	24.1%	2.1%
17	8,652	8,811	8,518	8,310	9,312	12.1%	1.9%
18	9,790	9,729	9,779	9,939	10,359	4.2%	1.4%
19	9,248	9,288	9,115	9,442	10,216	8.2%	2.5%
20	9,073	8,880	8,845	9,332	9,860	5.7%	2.1%
21 and older	247,123	249,259	254,266	274,220	289,623	5.6%	4.0%
21-24	31,091	31,722	33,111	34,912	36,761	5.3%	4.3%
25-44	105,666	105,379	107,363	117,105	124,150	6.0%	4.1%
45-64	82,741	82,937	83,382	89,321	93,425	4.6%	3.1%
65 and older	27,625	29,221	30,410	32,882	35,287	7.3%	6.3%
15-20 as % all licensed drivers	7.9%	7.9%	7.8%	7.5%	7.5%		
15-20 as % drivers in collisions	14.1%	14.0%	13.6%	12.9%	13.2%		

Sources: Indiana State Police Automated Reporting Information Exchange System, as of March 17, 2016; Indiana Bureau of Motor Vehicles, as of April 20, 2016.

Notes:

- 1) Excludes drivers with reported ages under 15 or over 109 years.
- 2) Excludes non-motorists.

INVOLVEMENT AND INJURIES

During 2011 to 2014, young drivers remain slightly over-represented in traffic collisions of all severities. Young drivers were 7.5 percent of all licensed drivers in 2015, but represented 13 percent of collision-involved drivers and 10 percent of drivers involved in fatal collisions (Table 2). After declines in involvement from 2011 to 2013, counts of involved young drivers increased in 2014 and 2015. The number of young drivers in collisions increased 9 percent in 2015. In 2011, there were 40,613 young drivers involved in collisions; by 2015, this increased to 44,095 young drivers

involved—a 2 percent average annual increase over the five years. Young driver involvement in fatal collisions increased 32 percent from 2014 to 2015 and by 4 percent annually since 2011. Based on their proportion of licensed drivers, young drivers are over-represented in all non-fatal collision severity categories. Young driver involvement in incapacitating injury collisions more than doubled in 2015, but this increase is related to changes in the categories used by police to report injuries in ARIES (i.e., the addition of “transported from scene” as an eligible injury classification).

Table 2. Young drivers involved in Indiana collisions by collision severity, 2011-2015

Collision severity	Count of young drivers					Annual rate of change	
	2011	2012	2013	2014	2015	2014-15	2011-15
Total young drivers	40,613	40,497	39,863	40,504	44,095	8.9%	2.1%
Fatal	100	128	102	88	116	31.8%	3.8%
Injury	8,169	8,286	7,562	7,511	7,841	4.4%	-1.0%
Incapacitating	576	669	565	875	2,988	241.5%	50.9%
Non-incapacitating	7,593	7,617	6,997	6,636	4,853	-26.9%	-10.6%
Property damage	32,344	32,083	32,199	32,905	36,138	9.8%	2.8%
Young drivers as % of drivers involved							
Fatal	9.7%	11.6%	9.2%	7.9%	10.1%	28.2%	1.1%
Incapacitating	12.7%	13.1%	12.3%	12.4%	12.6%	0.9%	-0.2%
Non-incapacitating	14.7%	14.3%	13.6%	13.0%	13.5%	3.9%	-2.1%
Property damage	14.0%	13.9%	13.5%	12.8%	13.2%	3.0%	-1.4%
Young drivers as % all licensed drivers	7.9%	7.9%	7.8%	7.5%	7.5%		

Sources: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016; Indiana Bureau of Motor Vehicles, as of April 20, 2016.

Note: The most recent ARIES upgrade added a clarification to reporting officers on the definition of incapacitating injuries criteria to include “transported from scene for treatment”; therefore, 2014 and 2015 increases in incapacitating injuries reflect a definitional change and should be interpreted with caution.

Per 100,000 licensed drivers, males 15 to 20 years of age have the highest rates of all age-gender combinations in all years (Table 3). Females 15 to 20 years old also exhibit high collision involvement per 100,000 licensed, but at roughly 90 percent the rate of similarly-aged males (calculated from Table 3). However, in terms of injury collisions (including fatal), young female drivers have higher rates per 100,000 licensed than male

young drivers (Table 4). Normalized rates of driver injury (i.e., per 100,000 licensed) have remained roughly constant during the 2011 to 2015 period. Rates for all age groups, male or female, increased slightly from 2014 to 2015, but still remained close to the 2011 rates. Regardless of whether injuries were present, involvement in collisions per licensed driver declines for both genders as age increases.

Table 3. Indiana drivers in collisions per 100,000 licensed persons, by gender and age group, 2011-2015

Gender/age	Drivers in collisions per 100,000 licensed persons					Annual rate of change	
	2011	2012	2013	2014	2015	2014-15	2011-15
Male	7,296	7,335	7,386	7,865	8,264	5.1%	3.2%
15-20 years	12,099	12,208	12,002	12,459	13,423	7.7%	2.6%
21-24 years	10,596	10,384	10,974	11,421	12,290	7.6%	3.8%
25-44 years	7,797	7,953	8,074	8,709	9,200	5.6%	4.2%
45-64 years	6,087	6,134	6,145	6,664	6,892	3.4%	3.2%
65 and older	4,809	4,766	4,773	5,027	5,193	3.3%	1.9%
Female	5,653	5,721	5,709	5,909	6,332	7.2%	2.9%
15-20 years	11,006	10,759	10,832	11,137	12,029	8.0%	2.2%
21-24 years	9,400	9,403	9,640	10,125	10,714	5.8%	3.3%
25-44 years	6,285	6,471	6,452	6,810	7,311	7.4%	3.9%
45-64 years	4,339	4,411	4,404	4,553	4,857	6.7%	2.9%
65 and older	3,215	3,276	3,247	3,246	3,545	9.2%	2.5%



Sources: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016; Indiana Bureau of Motor Vehicles, as of April 20, 2016.

Note: Includes drivers only with known age and known gender.

Table 4. Indiana drivers injured in collisions per 100,000 licensed persons, by gender and age group, 2011-2015

Gender/age	Drivers in collisions per 100,000 licensed persons					Annual rate of change	
	2011	2012	2013	2014	2015	2014-15	2011-15
Male	768	814	770	783	824	5.3%	1.8%
15-20 years	1,293	1,391	1,257	1,238	1,305	5.4%	0.2%
21-24 years	1,156	1,210	1,202	1,173	1,240	5.7%	1.8%
25-44 years	801	874	825	870	914	5.2%	3.4%
45-64 years	639	672	645	651	689	5.7%	1.9%
65 and older	525	520	496	505	532	5.4%	0.3%
Female	732	757	735	736	777	5.5%	1.5%
15-20 years	1,419	1,427	1,342	1,310	1,449	10.7%	0.5%
21-24 years	1,196	1,241	1,238	1,215	1,296	6.7%	2.0%
25-44 years	810	850	820	852	900	5.5%	2.6%
45-64 years	568	598	587	584	606	3.9%	1.6%
65 and older	420	418	420	416	427	2.7%	0.5%



Sources: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016; Indiana Bureau of Motor Vehicles, as of April 20, 2016.

Notes:

1) Includes drivers only with known age and known gender.

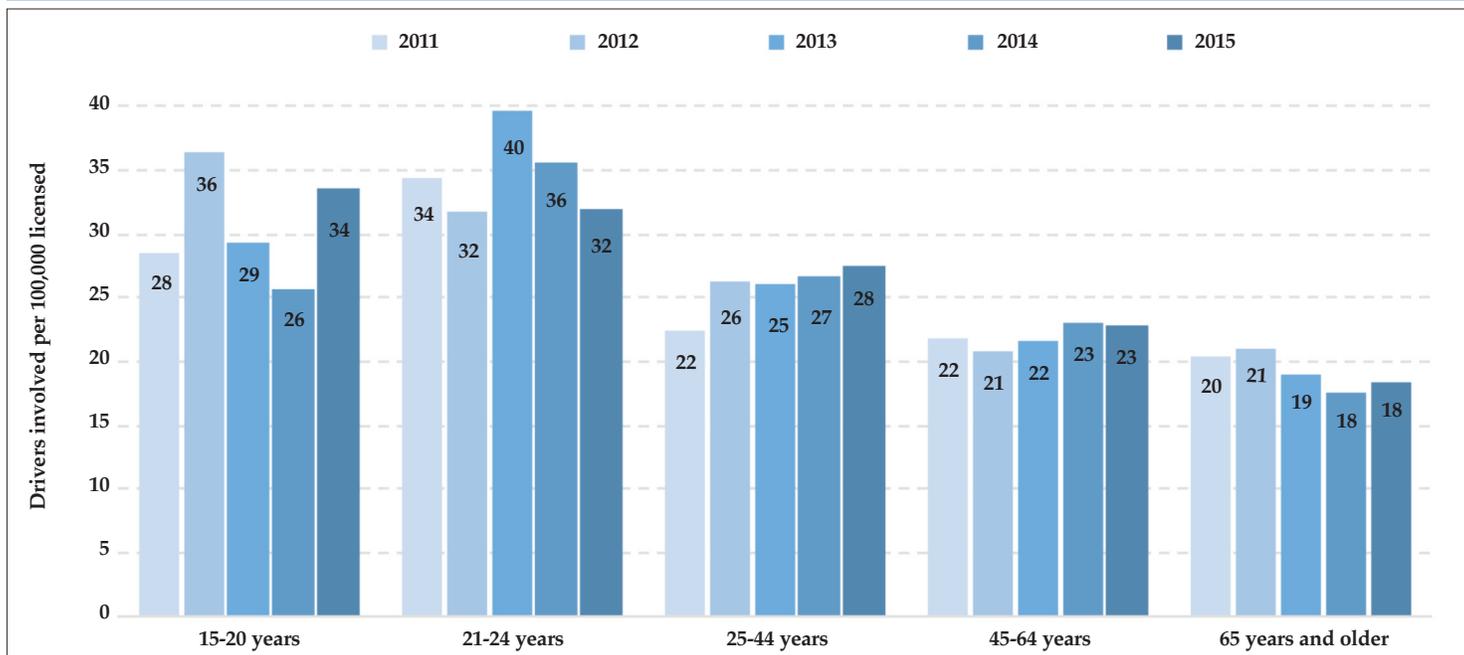
2) Injured includes incapacitating (transported from scene), non-incapacitating, possible, and other injuries.



The numbers of young drivers killed in Indiana traffic collisions per 100,000 licensed drivers from 2011 to 2015 have varied, with young drivers typically having the highest or second highest rates. In 2015, 34 young drivers died per 100,000 licensed, which was the highest rate among the five age groups compared here (Figure 2). The only other year in which young driver deaths per 100,000 licensed was highest was in 2012. Otherwise, the 21 to 24 year old group has demonstrated the highest normalized rates from 2011 to 2014.

The count of young drivers killed in traffic collisions increased 53 percent from 2014 to 2015, from 34 to 52 (Table 5). Young drivers with non-fatal injuries increased from 4,332 to 4,705, a 9 percent increase. While comprising just under 8 percent of all licensed drivers, young drivers were 10 percent of all driver fatalities, and 13 percent of all non-fatal driver injuries. Nonetheless, the vast majority of young drivers escape traffic collisions without reported injuries.

Figure 2. Indiana drivers in fatal collisions per 100,000 licensed drivers by age group, 2011-2015



Sources: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016; Indiana Bureau of Motor Vehicles, as of April 20, 2016.

Table 5. Individual injury status of young drivers in collisions, 2011-2015

Individual injury status	Count of young drivers					Annual rate of change	
	2011	2012	2013	2014	2015	2014-15	2011-15
Total young drivers (YD)	40,613	40,497	39,863	40,504	44,095	8.9%	2.1%
Fatal	55	54	44	34	52	52.9%	-1.4%
Injured	4,707	4,908	4,486	4,332	4,705	8.6%	0.0%
Not injured	35,851	35,535	35,333	36,138	39,338	8.9%	2.3%
Young drivers as % of total:							
Fatal injuries (all drivers)	10.5%	10.0%	8.3%	6.6%	9.6%		
Other injuries (all drivers)	14.3%	14.3%	13.5%	12.6%	13.0%		
YD as % all <i>involved</i> drivers	14.1%	14.0%	13.6%	12.9%	13.2%		
YD as % all <i>licensed</i> drivers	7.9%	7.9%	7.8%	7.5%	7.5%		

Sources: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016; Indiana Bureau of Motor Vehicles, as of April 20, 2016.

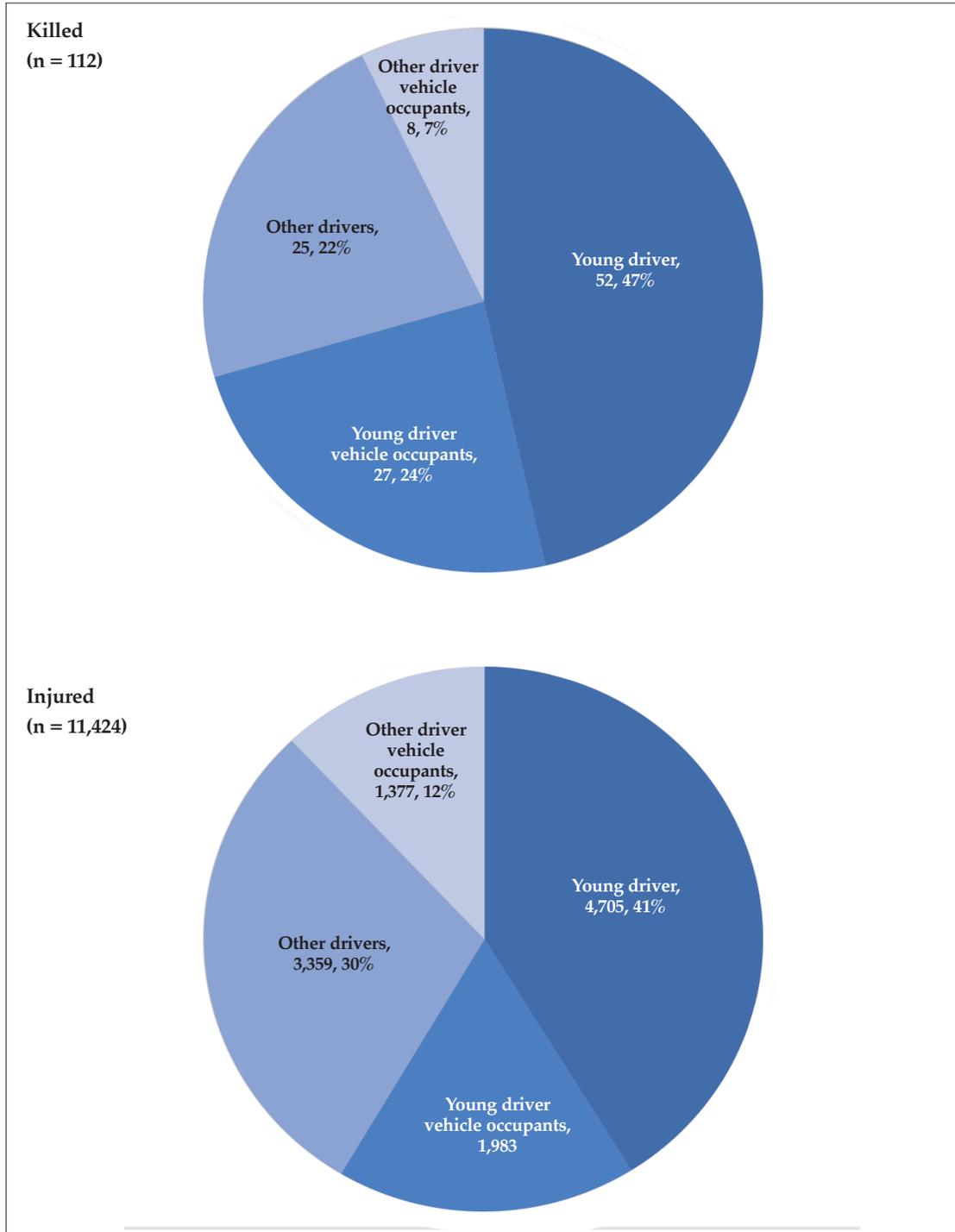
Notes:

- 1) Excludes young drivers with unknown injury status or unknown age.
- 2) *Injured* includes *incapacitating (transported from scene), non-incapacitating, possible, and other injuries.*

Besides the young drivers involved in collisions, other persons are killed or injured as well. In 2015, there were 60 other fatalities from collisions involving young drivers (Figure 3). These other deaths were comprised of the occupants of vehicles operated by young drivers (27 dead), the drivers of other involved vehicles (25 dead), and the occupants of other

vehicles (8 dead). Thus, 71 percent of those killed in young driver collisions were either the young drivers or their passengers. Further, non-fatal injuries were reported for 1,983 of young driver occupants, 3,359 of other drivers, and 1,377 of other occupants. Vehicles operated by young drivers include the majority (58 percent) of non-fatal injuries.

Figure 3. Persons killed or injured in Indiana collisions involving young drivers, by person type, 2015



Source: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016

Notes:

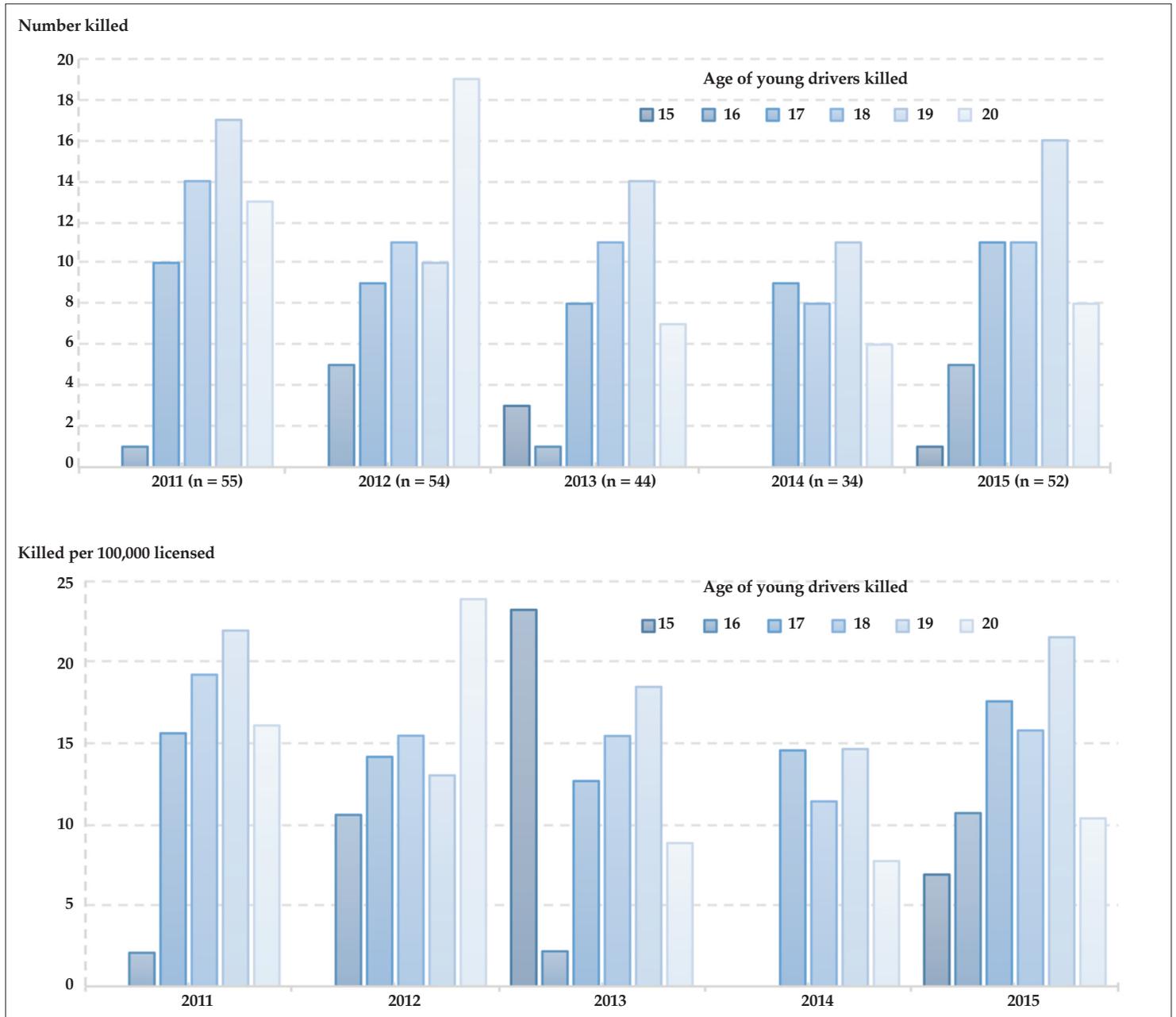
- 1) Excludes non-motorists. No non-motorists were killed, and two non-motorist were injured in 2015 young driver collisions.
- 2) Injured includes incapacitating (transported from scene), non-incapacitating, possible, and other injuries.



The age distribution of young drivers killed in collisions varied during the 2011 to 2015 period (Figure 4). Generally, 'older' young drivers aged 18 to 20 comprise the highest proportion of fatalities within the broader young driver age categories. In four of the five years (all except 2012), young drivers aged 18 years reflected the larger number of drivers killed; in 2012, it was the 20-year-old drivers with the most fatalities. These

relationships are generally consistent when normalized on the basis of number killed per 100,000 licensed (Figure 4). Only in 2013 did the 'youngest' young drivers (15 years of age) show an extremely high rate per 100,000 licensed; otherwise, 19 year old young drivers had the highest rates in three of the five years (2011, 2014, 2015).

Figure 4. Age distribution of young drivers killed in Indiana collisions, 2011-2015



Sources: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016; Indiana Bureau of Motor Vehicles, as of April 20, 2016.

RISKY DRIVING BEHAVIORS, SAFETY EQUIPMENT, AND ALCOHOL USE

Among other categories, risky driving behaviors can include speeding, distractions, failure to heed traffic signals and signage, and cell phone use. In comparison to older age categories, young drivers tend to have a relatively higher incidence of speeding, being distracted, or cell phone

use across the 2011 to 2015 time period (Table 6). For example, in 2015 there were 11 percent of young drivers engaged in speeding, compared to about 6 percent of drivers aged 25 to 44 (or 2 percent of drivers aged 65 and older). Cell phone use reported as a factor in collisions is rare (e.g., under one percent of drivers in any age category), but young drivers are reported to have a slightly higher rate than drivers 25 years and older.

Table 6. Percent of drivers engaged in risky behaviors in Indiana collisions, by age group, 2011-2015

Behavior/driver age	2011	2012	2013	2014	2015
Speeding					
15-20	10.1%	10.0%	10.7%	12.0%	11.0%
21-24	8.7%	7.8%	9.1%	11.2%	9.5%
25-44	5.9%	5.5%	6.2%	8.1%	6.5%
45-64	3.7%	3.5%	3.7%	5.2%	4.0%
65 and older	2.2%	2.3%	2.3%	3.0%	2.5%
Distracted					
15-20	4.9%	4.8%	4.7%	4.4%	4.7%
21-24	4.1%	4.4%	4.0%	3.8%	4.0%
25-44	3.1%	3.3%	3.2%	2.9%	3.1%
45-64	2.4%	2.5%	2.5%	2.1%	2.3%
65 and older	2.4%	2.4%	2.5%	2.2%	2.2%
Disregarded signal					
15-20	1.4%	1.4%	1.4%	1.3%	1.3%
21-24	1.5%	1.7%	1.6%	1.5%	1.5%
25-44	1.3%	1.3%	1.4%	1.3%	1.2%
45-64	1.3%	1.3%	1.2%	1.2%	1.2%
65 and older	2.0%	1.9%	1.8%	1.8%	1.7%
Cell phone use					
15-20	0.6%	0.6%	0.6%	0.6%	0.6%
21-24	0.7%	0.7%	0.7%	0.5%	0.6%
25-44	0.5%	0.4%	0.4%	0.4%	0.4%
45-64	0.2%	0.2%	0.2%	0.1%	0.2%
65 and older	0.1%	0.1%	0.1%	0.1%	0.1%



Lower rate Higher rate

Formatting applied within behavior type

Source: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016

Note: Excludes drivers with unknown age.



Further, in comparison to older age categories, young drivers involved in fatal collisions generally tend toward lower rates of proper restraint use inside motor vehicles. In this five year series, young drivers had the lowest restraint use rates in 2011, but by 2015 young driver restraint use was better than the 21-24 and 25-44 year old groups (Table 7). In contrast,

young operators of motorcycles are slightly more likely to have worn helmets in collisions, and had the highest collision-involved helmet use in all but the year 2013. However, Indiana law requires motorcyclists under the age of 18 to wear helmets, so higher young operator helmet use might be expected.

Table 7. Drivers involved in Indiana fatal collisions by age group, vehicle type, and safety equipment use, 2011-2015

Vehicle/safety equipment/driver age	Percent drivers using safety equipment in fatal collisions				
	2011	2012	2013	2014	2015
Motor vehicles, excluding motorcycles (seatbelts)					
15-20	59.5%	69.4%	72.2%	71.0%	78.4%
21-24	70.8%	58.0%	71.0%	72.2%	70.5%
25-44	77.3%	73.2%	74.0%	76.0%	77.1%
45-64	83.0%	83.7%	88.8%	82.0%	79.2%
65 and older	86.6%	82.9%	82.8%	79.3%	82.2%
Motorcycles (helmets)					
15-20	25.0%	40.0%	16.7%	40.0%	33.3%
21-24	0.0%	33.3%	12.5%	15.4%	25.0%
25-44	20.0%	18.3%	16.2%	21.6%	20.5%
45-64	10.9%	16.0%	22.5%	23.5%	13.2%
65 and older	25.0%	15.4%	42.9%	28.6%	33.3%

Higher use Lower use

Formatting applied within vehicle type

Source: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016

Note: Includes drivers with known safety equipment use, age, and vehicle type.

Regarding the use of alcohol or drugs by drivers, Indiana law requires a substance test for all drivers involved in fatal (or serious injury) collisions. Nonetheless, testing reported in ARIES falls short of a '100 percent standard' in fatal and incapacitating collisions. For example, young drivers were tested for alcohol and/or drugs 69 percent of the time in 2015, which was about the same as the rate of 21-24 year old drivers (Table 8).

Drivers 65 and older in fatal collisions had the lowest test rates of all age categories in all five years (from 58 percent in 2011 to 45 percent in 2015). Generally, across all age categories, the percent of drivers in fatal collisions tested for drugs and/or alcohol averaged 71 percent in 2011 and 62 percent in 2015.

Table 8. Indiana drivers in fatal collisions, by age group and type of substance test, 2011-2015

Driver age/test type	Count of drivers					Annual rate of change	
	2011	2012	2013	2014	2015	2014-15	2011-15
15 to 20 years	100	128	102	88	116	31.8%	3.8%
Alcohol and/or drug	76	105	71	60	80	33.3%	1.3%
No test reported	24	23	31	28	36	28.6%	10.7%
21 to 24 years	107	102	127	115	102	-11.3%	-1.2%
Alcohol and/or drug	78	80	98	78	72	-7.7%	-2.0%
No test reported	29	22	29	37	30	-18.9%	0.9%
25 to 44 years	336	383	387	404	414	2.5%	5.4%
Alcohol and/or drug	264	296	268	288	271	-5.9%	0.7%
No test reported	72	87	119	116	143	23.3%	18.7%
45 to 64 years	346	329	343	367	365	-0.5%	1.3%
Alcohol and/or drug	248	233	199	242	224	-7.4%	-2.5%
No test reported	98	96	144	125	141	12.8%	9.5%
65 and older	142	155	145	142	150	5.6%	1.4%
Alcohol and/or drug	83	88	70	68	67	-1.5%	-5.2%
No test reported	59	67	75	74	83	12.2%	8.9%
Percent tested							
15-20 years	76.0%	82.0%	69.6%	68.2%	69.0%		
21-24 years	72.9%	78.4%	77.2%	67.8%	70.6%		
25-44	78.6%	77.3%	69.3%	71.3%	65.5%		
45-64	71.7%	70.8%	58.0%	65.9%	61.4%		
65 and older	58.5%	56.8%	48.3%	47.9%	44.7%		
Age-weighted average	71.5%	73.1%	64.5%	64.2%	62.2%		

Source: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016

Note: Includes drivers with known age in collisions that involved at least one fatality.



Considering the measured impairment rates of drivers in fatal and incapacitating collisions, BAC levels of 0.08 g/dL or higher are found among less than 5 percent of drivers aged 15 to 20 years; in 2015, 1 percent of young drivers were found to be impaired (Table 9). In fatal and incapacitating collisions, the highest BAC levels were typically found among drivers aged 21 to 44 years, with these groups having rates below 5 percent in 2015. However, drivers involved in fatal collisions have higher impairment rates. Young drivers had impairment rates under 10 percent in fatal collisions across the 2011 to 2015 period. In 2015, the young driv-

er impairment rate in fatal collisions was 3 percent, less than all but the over 65 year old age group. However, impairment rates for drivers in the various age groups differ according to the number of vehicles involved in the collision, with single vehicle crashes more likely to involve impaired drivers in 2015 (Table 10). No young drivers in multi-vehicle collisions involving at least one fatality were impaired; however, in single vehicle fatal collisions, about 8 percent of young drivers were impaired. Young driver and drivers 65 years and older had the lowest impairment rates in single- and multi-vehicle fatal and non-fatal collisions in 2015.

Table 9. Impairment rate of drivers in Indiana collisions, by age group, 2011-2015

	Percent drivers with 0.08 BAC or greater				
	2011	2012	2013	2014	2015
Drivers in fatal and incapacitating injury collisions					
15 to 20 years	4.0%	3.6%	3.0%	2.7%	1.1%
21 to 24 years	8.4%	10.0%	9.6%	6.8%	4.8%
25-44 years	7.9%	8.9%	8.6%	5.7%	4.2%
45-64 years	5.3%	4.5%	3.8%	3.8%	3.0%
65 and older	0.6%	1.3%	1.0%	1.0%	0.9%
Drivers in fatal collisions					
15 to 20 years	9.0%	9.4%	5.9%	4.5%	3.4%
21 to 24 years	19.6%	26.5%	21.3%	9.6%	11.8%
25-44 years	21.1%	22.5%	16.5%	13.1%	11.1%
45-64 years	10.7%	11.2%	6.4%	8.4%	6.0%
65 and older	0.7%	4.5%	2.8%	2.1%	2.0%

Lower rate
Higher rate

Source: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016.

Table 10. Drivers in Indiana collisions, by age group, alcohol impairment, and collision type, 2011-2015

Driver age	Single-vehicle			Multi-vehicle		
	Impaired	Total	% impaired	Impaired	Total	% impaired
Non-fatal collisions	742	10,861	6.8%	583	48,779	1.2%
15 to 20 years	51	1,953	2.6%	22	5,888	0.4%
21 to 24 years	164	1,456	11.3%	66	5,121	1.3%
25-44 years	319	3,928	8.1%	298	18,523	1.6%
45-64 years	186	2,568	7.2%	175	14,020	1.2%
65 and older	22	956	2.3%	22	5,227	0.4%
Fatal collisions	60	397	15.1%	27	750	3.6%
15 to 20 years	4	51	7.8%	0	65	0.0%
21 to 24 years	7	46	15.2%	5	56	8.9%
25-44 years	34	135	25.2%	12	279	4.3%
45-64 years	13	121	10.7%	9	244	3.7%
65 and older	2	44	4.5%	1	106	0.9%

Source: Indiana State Police Automated Reporting and Information Exchange System, as of March 17, 2016

Notes:

- 1) Excludes non-motorists and drivers with unknown age or unknown BAC.
- 2) *Impaired* includes drivers with 0.08 BAC or more.

DEFINITIONS

- **Annual rate of change (ARC)** – The rate that a beginning value must increase/decrease each period (e.g. month, quarter, year) in a time series to arrive at the ending value in the time series. ARC is a “smoothed” rate of change because it measures change in a variable as if the change occurred at a steady rate each period with compounding. For example, to measure change in a variable from 2011 to 2015, it is calculated as $(\text{Value in 2015}/\text{Value in 2011})^{1/4} - 1$.
- **Young driver** – individuals between the ages of 15 to 20 years who are the operators of motor vehicles.

REFERENCES

National Highway Traffic Safety Administration (NHTSA). (October 2015). *Traffic Safety Facts 2013: Young Drivers*. Department of Transportation, DOT HS 812 200.

DATA SOURCES

Indiana State Police Automated Reporting Information Exchange System (ARIES), current as of March 17, 2016.

Indiana Bureau of Motor Vehicles (BMV) licensing data, current as of April 20, 2016.

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

This publication is one of a series of publications that form the analytical foundation of traffic safety program planning and design in the state of Indiana.

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An electronic copy of this document can be accessed via the PPI website (www.policyinstitute.iu.edu), the ICJI website (www.in.gov/cji/), or you may contact the PPI at 317-261-3000.

Traffic Safety Project

Designing and implementing effective traffic safety policies requires data-driven analysis of traffic collisions. To help in the policy-making process, the Indiana University Public Policy Institute collaborates each year with the Indiana Criminal Justice Institute to analyze vehicle crash data from the Automated Reporting Information Exchange System (ARIES), maintained by the Indiana State Police. This marks the tenth year of this partnership. Research findings are summarized in a series of publications on various aspects of traffic collisions, including alcohol-related crashes, commercial vehicles, dangerous driving, child passenger safety, motorcycles, occupant protection, and drivers. An additional publication provides detailed information on county and municipality data. 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. Crash reports for all Indiana collisions are entered electronically through ARIES. Collisions trends as reported in these publications 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. 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. 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 IU Public Policy Institute delivers unbiased research and data-driven, objective, expert analysis to help public, private and nonprofit sectors make important decisions that directly impact quality of life in Indiana. Using the knowledge and expertise of our staff and faculty, we provide research and analysis that is free of political and ideological bias. A multidisciplinary institute within the Indiana University School of Public and Environmental Affairs (SPEA), our efforts also support the Indiana Advisory Commission on Intergovernmental Relations (IACIR).

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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