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TRAFFIC SAFETY FACTS
Research Note

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Driver License Compliance Status in Fatal Crashes

Driver license status in fatal motor vehicle traffic crashes was examined in association with other variables in the Fatality Analysis Reporting System (FARS). Some of the major findings for 2012 are:

- Nineteen percent of motor vehicle fatalities involved drivers with invalid licenses.
- Drivers with invalid licenses comprised 13 percent of all drivers involved in fatal crashes.
- Motorcycle operators involved in fatal motor vehicle crashes were the most likely to have invalid licenses.
- Large-truck and bus drivers were the least likely to have invalid licenses.
- Nighttime crashes were more likely to involve drivers with invalid licenses.
- Male drivers involved in fatal crashes had invalid licenses more frequently than did female drivers.
- Other than those under age 16, drivers 21 to 34 had the highest proportion of invalid licenses in fatal crashes.

Background

All States require a driver's license for a person to be legally permitted to drive a vehicle. However, people sometimes choose to drive vehicles for which they are not licensed. This report examines how the status of driver licenses relates to various driver demographics and other factors in fatal crashes. However, being involved in a fatal crash while having an invalid license does not imply that either the invalidly licensed driver, or the fact that she or he had an invalid license, was the cause of a crash. A final table provides data on drivers with invalid licenses and fatalities in crashes in which they were involved in each State.

There is a variety of reasons why a driver might have an invalid license, which raises a very important caveat regarding the data. The reason for the lack of a valid license is not collected in the FARS database. Possible reasons include, but are not limited to:

- Neglected to renew a license on time,
- The license had been suspended or revoked (possibly due to driving and/or non-driving violations),
- Never obtained a license, or
- Did not obtain a license or endorsement for the type of vehicle being driven in the crash, such as a commercial vehicle or a motorcycle.

Methodology and Data

Data Source

FARS, an annual census of fatal motor vehicle traffic crashes in the United States, contains information on the people and vehicles involved in these crashes. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway customarily open to the public, and must result in the death of at least one occupant of a vehicle or a nonoccupant within 30 days of the crash. In each State, trained FARS analysts code the data from the police accident reports. For this analysis, the five most current calendar years of available FARS data (2008 to 2012) were used.

Definitions

For this analysis, an invalid license is defined using the FARS variable "License Compliance With Class of Vehicle." Those who had either no license or did not have a valid license or proper endorsement for the class of vehicle they were driving were considered to have invalid licenses. A driver having a valid license for the vehicle he or she was driving, or driving a vehicle that

did not require a driver's license (e.g., mopeds in some States), was considered to have a valid license. In cases where it could not be determined whether the driver had or required a license, license status was considered "unknown." Note that license validity corresponds to the specific vehicle being driven in the crash. Thus, someone without a driver's license would be considered, in this report, as having a valid license if the vehicle he or she was driving did not require a license.

All States and U.S. Territories have established minimum standards to qualify for a driver's license in order to operate a motor vehicle in public. States vary in their requirements for obtaining a driver's license, and the age at which a potential driver may obtain a license or learner's permit varies by State. Some States allow applicants to obtain a learner's permit or license at younger ages, but all States allow some form of licensing by the age of 16.

Issues With Unknown Data

There were instances in the FARS data where information was unknown. Tables below present data by the license status of the driver accompanied by additional factors: vehicle type, sex, time of day, and age. Drivers were grouped within these factors when the value wais known. For all tables, the rows or columns labeled "Total" include those with unknown values (e.g., it is not known what type of vehicle the person was driving), including unknown license status. Percentages were based on known values only, and may therefore be different than that calculated using only "total" and "invalid (known)" values presented in tables.

Regarding driver license compliance, a small percentage have unknown status. Of the 45,337 drivers involved in fatal crashes in 2012, the license compliance status of 2 percent (1,133) was unknown. Among fatally injured drivers, 165 of the 21,394 (1%) had unknown license status. There were 968 surviving drivers with unknown compliance, 4 percent of the 23,943 living drivers.

Fatalities and Crashes by License Compliance

Over the most recent 5 years for which data was available, 2008 to 2012, the total number of fatal crashes has generally declined (Table 1). During that time, the percentage of fatal crashes that involved drivers with invalid licenses has essentially remained stable, ranging from 17 to 19 percent. Note that it is possible for more than one driver with an invalid license to be involved in the same fatal motor vehicle crash. A crash will simply be referred to as involving a driver with an invalid license, with the understanding that more than one driver involved in the crash may have had an invalid license.

Over this same span of time, the total number of motor vehicle fatalities declined while the percentage of those involving a driver with an invalid license remained the same, ranging from 18 to 19 percent. Whether counting fatal crashes or fatalities, about one in five involved drivers who had an invalid license.

Table 1
Fatal Crashes and Fatalities Involving Drivers With Invalid Licenses, 2008–2012

	2008	2009	2010	2011	2012
Crashes					
Fatal Crashes Involving Invalidly Licensed Drivers	6,350	5,475	5,268	5,231	5,557
Total Fatal Crashes	34,172	30,862	30,296	29,867	30,800
Percent Invalid	**19%**	**18%**	**17%**	**18%**	**18%**
Fatalities					
Fatalities in Crashes Involving Invalidly Licensed Drivers	7,127	6,160	5,877	5,816	6,226
Total Fatalities	37,423	33,883	32,999	32,479	33,561
Percent Invalid	**19%**	**18%**	**18%**	**18%**	**19%**

Source: FARS Final File 2008 – 2011; FARS Annual Report File (ARF) 2012

Demographics of License Compliance

Gaining information about drivers who are more likely to have invalid licenses is useful in developing programs, enforcement, and media campaigns. Table 2 shows how license status for drivers varies by the injury severity of the drivers (fatal or surviving) for fatal crashes in 2012. A larger percentage of fatally injured drivers (17%) was found to have invalid licenses than surviving drivers (10%). Overall, 13 percent of drivers in fatal crashes had invalid licenses at the time of the crashes.

Table 2
Fatally Injured, Surviving, and All Involved Drivers With Invalid Licenses in Fatal Crashes, 2012

	Total Drivers	Number With Invalid License	Number With Valid License	Number With Unknown License Status	Percent With Invalid License*
Survived	23,442	2,186	20,669	587	10%
Fatally Injured	21,394	3,566	17,663	165	17%
All Involved	45,337	5,784	38,420	1,133	13%

Total drivers include those with unknown license status; "All Involved" includes 501 drivers with unknown injury status.

*Percentage is for drivers with known license status only.

Source: FARS ARF 2012

Fatalities by Role in Crashes Involving Drivers With Invalid Licenses

We have seen in Table 1 that about 19 percent of fatalities occur in crashes where at least one driver had an invalid license. Table 3 further breaks down the roles of people killed in motor vehicle crashes. All crashes involving drivers with invalid licenses are grouped in the top half of the table; the remaining crashes (crashes with validly licensed drivers or drivers with unknown license status) comprise the second half. This means that, for crashes involving only drivers with valid licenses, there were no "other vehicles" in the crashes.

It is interesting to note that a much smaller percentage of the fatalities in crashes with invalidly licensed drivers were non-occupants (8% of fatalities in such crashes), compared to the number in crashes with only validly licensed drivers (19%). Further examination of this data, looking at additional factors such as single-vehicle versus multi-vehicle crashes and alcohol use, would provide further insight in the issue.

Table 3
Fatalities by Crash Type, Driver Role, and Driver License Status, 2012

Crash Type	Role	Number	Percent of Subtotal	Percent of Total
Crashes Involving Invalidly Licensed Drivers	Drivers With Invalid License	3,566	57%	11%
	Passengers Riding w/ Driver With Invalid License	1,471	24%	4%
	Occupants of Other Vehicles	662	11%	2%
	Nonoccupants in Crashes w/Driver With Invalid License	527	8%	2%
	Subtotal Invalid	**6,226**	**100%**	**19%**
Crashes Involving Validly Licensed Drivers Only	Drivers With Valid License	17,828	65%	53%
	Passengers Riding w/ Driver With Valid License	5,004	18%	15%
	Nonoccupants in Crashes w/Only Validly Licensed Drivers	5,165	19%	15%
	Subtotal Valid	**27,335***	**100%**	**81%**
	Total Fatalities	33,561		100%

Source: FARS ARF 2012
*Drivers with unknown license status included in *Subtotal Valid* and Total Fatalities.

Demographics of Driver License Status

Table 4 presents the number of drivers involved in fatal crashes, both total and those with invalid licenses, by the type of vehicles being driven. The final column shows the percentage of drivers with invalid licenses for each vehicle type. Thirteen percent of passenger car drivers and 12 percent of light truck drivers involved in fatal crashes had invalid licenses at the time of the crash. Motorcycle riders in fatal crashes have the highest percentage with invalid licenses as defined in this analysis (24%), and large-truck and bus drivers the least (each 3%). Note that all States and the District of Columbia require motorcycle operators to obtain motorcycle licenses or endorsements (Baer, Baldi, & Cook, 2005), and that drivers of large trucks are required to have commercial driver licenses.

Table 4
Drivers Involved in Fatal Crashes by Vehicle Type and License Compliance, 2012

	Total	Invalid	% Invalid
Passenger Cars	17,992	2,296	13%
Light Trucks	17,131	2,051	12%
Large Trucks	3,753	115	3%
Motorcycles	5,075	1,218	24%
Buses	251	7	3%
Other / Unknown Vehicles	1,125	96	9%
Total	45,337	5,784	13%

Source: FARS ARF 2012.
Total Drivers includes unknown vehicle type and/or license status.

Looking only at drivers with invalid licenses, those driving passenger cars were the most common, making up 40 percent of that group (2,296 of the 5,784 drivers with invalid licenses). Light-truck drivers make up 35 percent, followed by motorcycle riders at 21 percent. Large-truck drivers, bus drivers, and those driving other or unknown vehicle type, combined, total 4 percent of invalidly licensed drivers.

There is a large difference in license status between male and female drivers. Fourteen percent of male drivers involved in fatal crashes had invalid licenses, compared to 9 percent of females (Table 5).

Table 5
Drivers Involved in Fatal Crashes by Sex and License Compliance, 2012

	Total	Invalid	% Invalid
Male	33,124	4,787	14%
Female	11,509	992	9%
Total	45,337	5,784	13%

Source: FARS ARF 2012.
Total Drivers includes those with unknown sex and/or license status.

In fatal crashes occurring during daytime hours (6 a.m. to 5:59 p.m.), 9 percent of drivers involved had invalid licenses (Table 6). During nighttime hours, 14 percent of drivers had invalid licenses.

Table 6
Drivers Involved in Fatal Crashes by Time of Day and License Compliance, 2012

	Total	Invalid	% Invalid
Daytime	23,927	2,423	9%
Nighttime	21,162	3,320	14%
Total	45,337	5,784	13%

Source: FARS ARF 2012.
Total Drivers includes those with unknown time of day and/or license status.
Drivers involved in crashes at unknown time are excluded.
Daytime: 6 a.m. to 5:59 p.m.; Nighttime: 6 p.m. to 5:59 a.m.

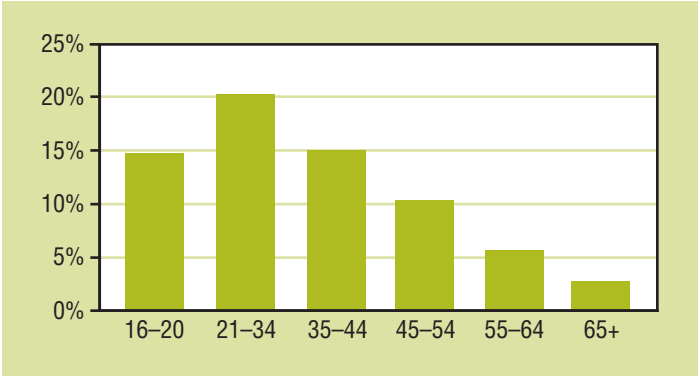
There were sharp differences in the percentage of drivers having invalid licenses by driver age group (Table 7). For those under 16, most too young to obtain licenses, 55 percent had invalid licenses. Note that this is a very small group, making up only 1 percent of drivers with invalid licenses. Of remaining drivers, the group most likely to have invalid licenses is those 21 to 34 years old, with 20 percent having invalid licenses. This age group makes up nearly half (47%) of those drivers without valid licenses (2,738 of 5,784). According to the 2012 data, from age 35 on, drivers in fatal crashes were increasingly less likely to have invalid licenses, although a substantial number of drivers without valid licenses were in the 35-to-44 age group. The percentages drop rather consistently, about 5 percent each increasing age group. Figure 1 shows the differences graphically by age group, for drivers 16 and older.

Table 7
Drivers Involved in Fatal Crashes and Involvement Rates per 100,000 Licensed Drivers, by Age Group and License Compliance, 2012

Age Group	Total	Invalid	% Invalid	Involvement Rates per 100,000 Licensed Drivers
<16	121	67	55%	95.06
16–20	4,191	622	15%	35.06
21–34	13,535	2,738	20%	26.58
35–44	7,242	1,084	15%	19.83
45–54	7,533	776	10%	18.56
55–64	5,854	330	6%	17.73
65+	5,711	163	3%	15.89
Total	45,337	5,784	13%	21.40

Source: FARS ARF 2012.
National Involvement Rate from 2012 Traffic Safety Facts FARS/GES Annual Report.
Total Drivers includes those with unknown age and/or license status.

Figure 1
Drivers 16 and Older Involved in Fatal Crashes, Percentage With Invalid Licenses, 2012



Source: FARS ARF 2012.

When the rate of involvement per 100,000 licensed drivers is examined, a somewhat different pattern by age group emerges. Those 16 to 20 have the highest rate of involvement of having an invalid license and being involved in a fatal crash, followed by those 21 to 34. The rate drops again for those 35 to 44, and remains stable from that age group on.

There was no substantial difference in the percentage of drivers with invalid licenses by land use (see Table 8). In rural areas, 12 percent of drivers involved in fatal crashes had invalid licenses, while in urban areas, 13 percent had invalid licenses.

Table 8
Drivers Involved in Fatal Crashes by Land Use and License Compliance, 2012

	Total	Invalid	% Invalid
Rural	23,643	2,885	12%
Urban	21,579	2,886	13%
Total	45,337	5,784	13%

Source: FARS ARF 2012.
Total Drivers includes those with unknown land use and/or license status.

License Compliance and Previous Driver Record

A person's driver history record can be indicative of his or her current driving behavior. The FARS database records data on driver records for the three years preceding the fatal crash. Table 9 presents information on drivers involved in fatal crashes by license compliance and several possible previous occurrences: license suspensions or revocations, crashes, DWI (driving while intoxicated or driving while impaired) convictions, speeding convictions, and other harmful moving violations (as defined in FARS). The number and percentage of drivers is shown, grouped by whether the driver had

Table 9
Drivers Involved in Fatal Crashes by License Compliance and Previous Driver Record, 2012

	Number of Previous Driver Record									
	0		1		2		3+		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
	Previous Suspension/Revocation									
Invalid	2,884	52%	1,051	19%	538	10%	1,119	20%	5,784	100%
Valid	34,723	91%	2,024	5%	779	2%	779	2%	38,420	100%
Total	37,628	86%	3,078	7%	1,317	3%	1,899	4%	45,337	100%
	Previous Recorded Crashes									
Invalid	4,661	89%	487	9%	83	2%	34	1%	5,784	100%
Valid	31,264	88%	3,707	10%	601	2%	128	0%	38,420	100%
Total	35,945	88%	4,196	10%	685	2%	162	0%	45,337	100%
	Previous DWI Convictions									
Invalid	5,007	90%	470	8%	94	2%	21	0%	5,374	100%
Valid	37,711	98%	521	1%	66	0%	7	0%	37,275	100%
Total	42,743	97%	991	2%	160	0%	28	0%	45,337	100%
	Previous Speeding Convictions									
Invalid	4,572	82%	709	13%	189	3%	121	2%	5,374	100%
Valid	31,915	83%	4,792	13%	1,143	3%	455	1%	37,275	100%
Total	36,506	83%	5,507	13%	1,332	3%	576	1%	45,337	100%
	Previous Other Harmful Convictions									
Invalid	4,090	73%	831	15%	334	6%	336	6%	5,374	100%
Valid	32,100	84%	4,402	11%	1,136	3%	667	2%	37,275	100%
Total	36,209	82%	5,236	12%	1,471	3%	1,005	2%	45,337	100%

Source: FARS ARF 2012.
Total Drivers includes those with Unknown Previous Record and/or License Status.

zero, one, two, or three or more previous occurrences of the given type. Since the driver's previous record must be known to be meaningful in this context, for Table 9 it was required that the driver's license status also be known. For this table, those with unknown license status were excluded.

There were major differences in 2012 in previous license suspensions/revocations between drivers with valid and invalid licenses. Obviously, a previous license suspension or revocation could be the reason a person does not have a valid license, so there is some interdependency with these factors. Ninety-one percent of drivers with valid licenses at the time of a fatal crash had no previous license suspension, while only about half the drivers with invalid licenses had no license suspension within the previous three years. Five percent of valid license holders, and 19 percent of invalid license holders, had one previous license suspension. Two percent of valid license holders and 10 percent of invalid license holders had two license suspensions each. Finally, 2 percent of valid license holders, and 20 percent of invalid license holders, had three or more license suspensions each. Note that, as seen in the first line of Table 9, for drivers having invalid licenses at the time of fatal crashes, a greater number had three or more previous license suspensions/revocations (1,119) each than had only one (1,051).

There is little difference in the number of previous crashes (if any) between drivers with valid or invalid licenses at the time of fatal crashes. For either type of driver, in 2012, about 88 percent had no collisions reported within the previous three years (the time period for which the FARS dataset records them). Similarly, whether holding valid or invalid licenses, about 10 percent of drivers had each been involved in a single previous collision, 2 percent in two collisions, and less than 1 percent in three or more collisions.

Overall, about 94 percent of drivers involved in fatal crashes have no prior DWI convictions (within the three years before the crash, which is how the data is recorded in FARS). There is substantial variation between drivers who did and did not have valid licenses at the time of the crashes. Ninety-eight percent of validly licensed drivers had no previous DWI convictions, while 90 percent of drivers with invalid licenses had none. For drivers with valid licenses, about 1 percent each had a prior DWI conviction at the time of the crash, and less than

1 percent had two or more convictions. However, 8 percent of drivers with invalid licenses had one prior DWI conviction each, and 2 percent had two or more.

Driver license status was examined in relation to previous speeding convictions, and was found to have no relationship. Regardless of license status, about 82 percent of drivers involved in fatal crashes had no previous speeding convictions, 13 percent had single convictions, about 3 percent had two, and 1 to 2 percent had three or more.

The FARS database also records the number of previous other harmful motor vehicle convictions, if any. Examples of these would be running a red light, reckless driving, improper lane changing, failure to yield, etc. When examined by license status, there were substantial differences. While 84 percent of drivers with valid licenses had none of these prior convictions, only 73 percent of drivers with invalid licenses had no priors. Eleven percent of drivers with valid licenses each had one prior harmful violation, while this was true for 15 percent of drivers with invalid licenses. Although the numbers are relatively small, the differences are most striking for those with two prior convictions (1,136, or 3% of drivers with valid licenses, versus 334, or 6% of drivers with invalid licenses) and those with three or more convictions (667, or 2% of drivers with valid license versus 336, or 6% of drivers with invalid licenses).

Any of these convictions could be related to why any given driver did not have a valid license, so they may not be independent. However, seeing which types of violations vary more by license status is of interest. For example, those with invalid licenses were more likely to have DWI convictions as well as other harmful motor vehicle convictions.

Fatalities and Drivers Involved in Fatal Crashes by State and License Status

Fatalities in motor vehicle crashes and the number and percentage that occurred in crashes involving invalidly licensed drivers are shown in Table 10, for each State and the District of Columbia. The drivers involved in these crashes are also presented. Nationally in 2012, about 19 percent of the fatalities in motor vehicle crashes involved drivers with invalid licenses. States ranged from a low of 6 percent (New Hampshire) to a high of 31 percent (Hawaii). Looking only at the number of fatalities (which is also dependent on the population of a State), Texas also had the largest number of fatalities (878) in crashes involving drivers with invalid licenses. Washington, DC, had the smallest number (3) of fatalities involving drivers with invalid licenses, although this was a relatively large percentage (20%) of all fatalities in the District of Columbia.

Looking now to drivers, New Hampshire also had the lowest percentage (5%) of drivers having invalid licenses while involved in fatal crashes, and the District of Columbia had the highest (20%). In part because of population, DC also had the smallest number of drivers with invalid licenses (4). The largest number of drivers with invalid licenses involved in fatal crashes was 833 in Texas. Note that the District of Columbia has the smallest number of total fatalities (15), about a fourth of the next lowest (Alaska, at 59). This relatively small number can lead to extreme annual variability in percentages, as well as the seemingly incongruous statistics of DC having the smallest number but highest percentage of drivers having an invalid license. However, the numbers themselves, and the nationwide percentages, are relatively consistent from year to year. Table 1 showed that the national percentage of fatalities and fatal crashes involving an invalidly licensed driver have been stable over the last five years. We also saw in several earlier tables that percentage of drivers nationwide having invalid licenses in fatal crashes was 13 percent in 2012.

Table 10

Fatalities and Drivers With Invalid Licenses, in Fatal Crashes by State, 2012

State	Fatalities			Drivers Involved		
	Total Fatalities	Fatalities in Crashes Involving Invalidly Licensed Drivers		Total Drivers Involved	Drivers Involved With Invalid Licenses	
	Number	Number	Percent	Number	Number	Percent
Alabama	865	167	19%	1,214	161	13%
Alaska	59	5	8%	83	5	6%
Arizona	825	152	18%	1,088	131	12%
Arkansas	552	113	20%	734	101	14%
California	2,857	716	25%	3,811	681	18%
Colorado	472	113	24%	630	105	17%
Connecticut	236	34	14%	332	33	10%
Delaware	114	19	17%	146	17	12%
Dist of Columbia	15	3	20%	20	4	20%
Florida	2,424	416	17%	3,412	402	12%
Georgia	1,192	177	15%	1,676	166	10%
Hawaii	126	39	31%	175	30	17%
Idaho	184	21	11%	244	20	8%
Illinois	956	111	12%	1,322	107	8%
Indiana	779	161	21%	1,107	158	14%
Iowa	365	70	19%	491	59	12%
Kansas	405	73	18%	527	66	13%
Kentucky	746	145	19%	1,023	129	13%
Louisiana	722	139	19%	944	133	14%
Maine	164	14	9%	215	13	6%
Maryland	505	50	10%	702	42	6%
Massachusetts	349	54	15%	449	50	11%
Michigan	938	146	16%	1,325	136	10%
Minnesota	395	55	14%	537	49	9%
Mississippi	582	100	17%	684	80	12%
Missouri	826	143	17%	1,096	134	12%
Montana	205	44	21%	250	41	16%
Nebraska	212	16	8%	284	13	5%
Nevada	258	51	20%	355	47	13%
New Hampshire	108	7	6%	147	7	5%
New Jersey	589	62	11%	816	59	7%
New Mexico	365	56	15%	471	51	11%
New York	1,168	152	13%	1,569	139	9%
North Carolina	1,292	275	21%	1,732	261	15%
North Dakota	170	37	22%	218	37	17%
Ohio	1,123	186	17%	1,573	174	11%
Oklahoma	708	143	20%	939	125	13%
Oregon	336	63	19%	426	54	13%
Pennsylvania	1,310	195	15%	1,797	184	10%
Rhode Island	64	10	16%	87	10	11%
South Carolina	863	142	16%	1,153	132	11%
South Dakota	133	29	22%	174	24	14%
Tennessee	1,014	197	19%	1,365	178	13%
Texas	3,398	878	26%	4,564	833	18%
Utah	217	49	23%	295	43	15%
Vermont	77	21	27%	96	17	18%
Virginia	777	82	11%	1,026	77	8%
Washington	444	103	23%	596	88	15%
West Virginia	339	47	14%	450	43	10%
Wisconsin	615	125	20%	806	115	14%
Wyoming	123	20	16%	161	20	12%
National	**33,561**	**6,226**	**19%**	**45,337**	**5,784**	**13%**
Puerto Rico	361	54	15%	432	57	13%

Source: FARS ARF 2012
National total does not include Puerto Rico

Conclusions

About one in five fatal crashes, as well as traffic fatalities, involve drivers without valid licenses. This percentage varies depending on the sex and age of the driver, the time of day, and the type of vehicle being driven. Understanding which drivers are most at-risk for having invalid licenses is useful in developing programs, enforcement, and media campaigns. Individual States varied widely in the percentage of fatalities in crashes involving drivers with invalid licenses, from a low of 6 percent to a high of 31 percent.

References

Baer, J., Baldi, S., & Cook, A. (2005, July). *Promising practices in motorcycle rider education and licensing.* (Report No. DOT HS 809 922). Washington, DC: National Highway Traffic Safety Administration. Available at http://icsw.nhtsa.gov/people/injury/pedbimot/motorcycle/MotorcycleRider/pages/PromisingPractices.pdf

Carnegie, J. A., & Eger III, R. J. (2009, January). *Reasons for driver license suspension, recidivism, and crash involvement among drivers with suspended/revoked licenses.* (Report No. DOT HS 811 092). Washington, DC: National Highway Traffic Safety Administration. Available at www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/811092.pdf

Chang, D. (2009). *Trends in fatal crashes among drivers with invalid licenses.* (Traffic Safety Facts Research Note. Report No. DOT HS 811 229). Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/811229.pdf

Griffin, L. I., & DeLaZerda, S. (2000). *Unlicensed to kill.* Washington, DC: AAA Foundation for Traffic Safety. Available at www.aaafoundation.org/sites/default/files/unlicensed2kill.PDF

Scopatz, R. A., Hatch, C. E., DeLucia, B. H., & Tays, K. A. (2003, January). *Unlicensed to kill: The sequel.* Washington, DC: AAA Foundation for Traffic Safety. Available at www.aaafoundation.org/sites/default/files/UnlicensedToKill2.pdf

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