Traffic Safety Facts
Research Note

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Fatalities and Fatality Rates in Alcohol-Impaired Crashes by State, 2005-2006

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Summary

In 2006, as compared to 2005, while the overall fatality rate declined from 1.46 to 1.41 fatalities per 100 million vehicle miles of travel (VMT), the alcohol-impaired fatality rate remained flat at 0.45 fatalities per 100 million VMT. In 2006, the alcohol-impaired fatality rate declined from 2005 in a total of 26 States, Puerto Rico, and the District of Columbia, and remained flat or increased in the remaining 24 States.

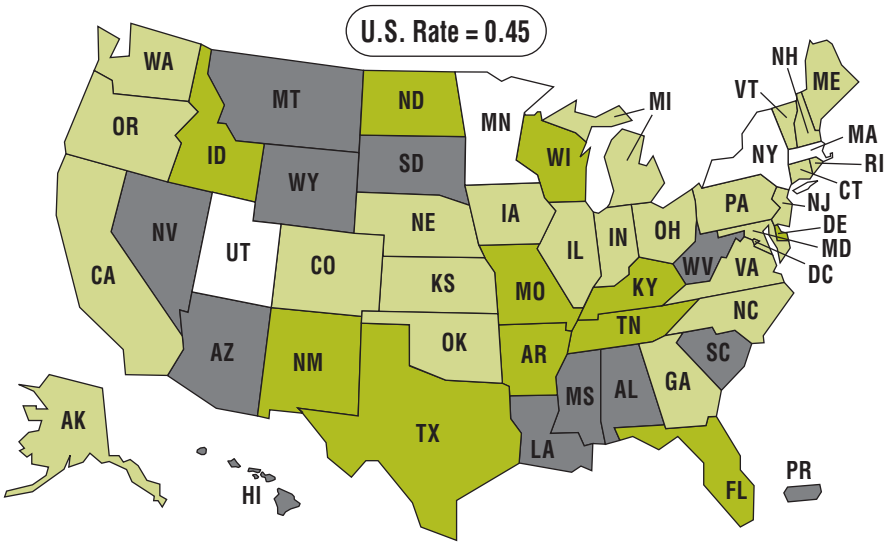
In all 50 States, the District of Columbia, and Puerto Rico, it is illegal *per se* to drive or operate a motorcycle with a blood alcohol concentration (BAC) of .08 grams per deciliter or above. The impaired driving programs at the National Highway Traffic Safety Administration target drivers who drive at or above the illegal *per se* level. This research note presents, by State, fatality rates in crashes that involved at least one driver or motorcycle operator with a BAC=.08+ — defined as alcohol-impaired crashes.

Results

This note uses the 2005 Final and 2006 Annual Report File (ARF) of NHTSA's Fatality Analysis Reporting System (FARS) as well as the VMT data that was released by the FHWA in December 2007 to compute the fatality rate in alcohol-impaired crashes (alcohol-impaired fatality rate). Estimates of alcohol involvement are generated using a combination of BAC values that are reported to FARS and imputed BAC values when they are not reported to FARS.

Figure 1 maps the rate of alcohol-impaired fatalities per 100 million VMT for each State in 2006. The States are color-coded as to whether their rates are at or above (light green, white) the national rate of 0.45, or below the national rate (dark green, grey). Table 3 (page 3) depicts the fatalities and fatality rates underlying Figure 1, by State for 2005 and 2006.

Figure 1
Alcohol-Impaired Fatalities per 100 Million VMT by State, 2006



Source: National Center for Statistics and Analysis, 2006 FARS Annual Report File

Table 1 depicts the proportion of the alcohol-impaired driving fatalities that lie within the four categories of alcohol-impaired fatality rate shown in the map in Figure 1. About 6 percent of all alcohol-impaired fatalities occurred in States with a alcohol-impaired fatality rate under 0.30, about 46 percent occurred in States with the rate between 0.30 and 0.45, about 31 percent occurred in States with rates between 0.46 and 0.60 and the remaining 18 percent of the alcohol-impaired fatalities occurred in States with rates of 0.61 or above.

As shown in the Table 2, in the 26 States and the District of Columbia that showed a decrease in their alcohol-impaired fatality rate, there were 513 fewer alcohol-related fatalities in 2006, as compared to 2005. This, however, was offset by an increase of 402 fatalities for the 24 States that showed an increase or no change in their alcohol-impaired fatality rate in 2006. In all crashes in 2006, as compared to 2005, among the 31 States and the District of Columbia that showed a decline in the overall fatality rate, there were 1,391 fewer fatalities, which were offset by an increase of 523 fatalities in the 19 States where the overall rate was flat or higher in 2006 as compared to 2005.

Table 1
Alcohol-Impaired Fatalities and Percentage of Total Alcohol-Impaired Fatalities By Alcohol-Impaired Fatality Rate Category, 2006

Alcohol-Impaired Fatality Rate	Number of States	Alcohol-Impaired Fatalities	Percent of U.S.
Under 0.30	4	739	6%
0.30 – 0.45	24 + D.C.	6,133	46%
0.46 – 0.60	11	4,129	31%
0.61 & Over	11	2,470	18%
U.S.	-	13,470	100%

Table 2
Fatalities and Fatality Rates by Categories of Increasing and Decreasing Rates in 2006 as Compared to 2005, U.S.

2006 Rates as Compared to 2005 Rates	Fatalities in All Crashes		Fatalities in Crashes Involving at Least One Driver/Motorcycle Operator With BAC=.08+	
	Number of States	Change in Fatalities	Number of States	Change in Fatalities
States With Higher/Flat Rates	19	+523	24	+402
States With Lower Rates	31 + D.C.	-1,391	26 + D.C.	-513
U.S.	-	-868	-	-111

Components may not add to U.S. totals due to independent rounding.

Alcohol-Impaired Fatality Rates by State

Impaired-driving laws have been enacted in all 50 States and the District of Columbia that make it illegal for a driver or a motorcycle operator with a BAC of .08 or above to drive a vehicle. In 2006, the alcohol-impaired fatality rate remained flat at 0.45 fatalities per 100 million VMT. In 2006, Montana had the highest alcohol-impaired fatality rate in the Nation – 0.91 fatalities per 100 Million VMT while Utah had the lowest rate in the Nation – 0.21 per 100 million VMT. In 2005, the same States, i.e., Montana and Utah had the highest and lowest alcohol-impaired fatality rates in the Nation – 0.97 and 0.13 fatalities per 100 million VMT; respectively. Table 3 tabulates the overall fatalities as well as the alcohol-impaired fatalities and the corresponding fatality rates per 100 million VMT by State for 2005 and 2006 for the 50 States, District of Columbia and Puerto Rico. The fatality data is from NHTSA's FARS while the VMT data are estimates from the Federal Highway Administration's Traffic Volume Trends.

U.S. Department of Transportation
National Highway Traffic Safety Administration

Table 3
Total Alcohol-Impaired Fatalities and the Corresponding Fatality Rates per 100 Million VMT, 2005-2006

State	2005				2006			
	Total		In Alcohol-Impaired Crashes (Involving at least one driver /MC operator with BAC=.08+)		Total		In Alcohol-Impaired Crashes (Involving at least one driver / MC operator with BAC=.08+)	
	Fatalities	Rate	Fatalities	Rate	Fatalities	Rate	Fatalities	Rate
Alabama	1,148	1.92	373	0.63	1,208	2.00	384	0.64
Alaska	73	1.45	29	0.58	74	1.49	20	0.40
Arizona	1,179	1.97	375	0.63	1,288	2.06	409	0.65
Arkansas	654	2.05	180	0.56	665	2.01	197	0.60
California	4,333	1.32	1,298	0.39	4,236	1.29	1,276	0.39
Colorado	606	1.26	206	0.43	535	1.10	177	0.36
Connecticut	278	0.88	98	0.31	301	0.95	109	0.34
Delaware	133	1.40	51	0.54	148	1.57	43	0.46
Dist of Columbia	48	1.29	19	0.51	37	1.02	12	0.33
Florida	3,518	1.75	1,106	0.55	3,374	1.66	959	0.47
Georgia	1,729	1.52	433	0.38	1,693	1.49	464	0.41
Hawaii	140	1.39	54	0.54	161	1.58	63	0.62
Idaho	275	1.85	82	0.55	267	1.76	84	0.55
Illinois	1,363	1.27	458	0.43	1,254	1.17	444	0.42
Indiana	938	1.31	254	0.35	899	1.26	247	0.35
Iowa	450	1.45	94	0.30	439	1.40	122	0.39
Kansas	428	1.44	101	0.34	468	1.55	135	0.45
Kentucky	985	2.08	249	0.52	913	1.91	222	0.46
Louisiana	963	2.14	334	0.74	982	2.16	364	0.80
Maine	169	1.13	50	0.34	188	1.25	51	0.34
Maryland	614	1.09	165	0.29	651	1.16	193	0.34
Massachusetts	441	0.80	148	0.27	430	0.78	137	0.25
Michigan	1,129	1.09	327	0.31	1,085	1.04	332	0.32
Minnesota	559	0.98	163	0.29	494	0.87	151	0.27
Mississippi	931	2.32	322	0.80	911	2.20	320	0.77
Missouri	1,257	1.83	420	0.61	1,096	1.59	380	0.55
Montana	251	2.26	108	0.97	263	2.33	103	0.91
Nebraska	276	1.43	74	0.38	269	1.39	70	0.36
Nevada	427	2.06	135	0.65	432	1.98	142	0.65
New Hampshire	166	1.24	54	0.40	127	0.93	47	0.35
New Jersey	747	1.01	203	0.27	772	1.02	224	0.30
New Mexico	488	2.04	149	0.62	484	1.88	136	0.53
New York	1,434	1.03	417	0.30	1,456	1.03	397	0.28
North Carolina	1,547	1.53	429	0.42	1,559	1.54	420	0.41
North Dakota	123	1.62	46	0.61	111	1.41	41	0.52
Ohio	1,321	1.20	395	0.36	1,238	1.11	377	0.34
Oklahoma	803	1.71	232	0.49	765	1.57	201	0.41
Oregon	487	1.38	125	0.35	477	1.34	148	0.42
Pennsylvania	1,616	1.50	526	0.49	1,525	1.41	487	0.45
Rhode Island	87	1.05	34	0.41	81	0.98	29	0.35
South Carolina	1,094	2.21	436	0.88	1,037	2.07	420	0.84
South Dakota	186	2.22	70	0.83	191	2.08	69	0.75
Tennessee	1,270	1.79	376	0.53	1,287	1.82	408	0.58
Texas	3,536	1.50	1,320	0.56	3,475	1.46	1,354	0.57
Utah	282	1.12	33	0.13	287	1.11	54	0.21
Vermont	73	0.95	28	0.36	87	1.11	26	0.33
Virginia	947	1.18	279	0.35	963	1.19	300	0.37
Washington	649	1.17	238	0.43	630	1.11	225	0.40
West Virginia	374	1.82	110	0.54	410	1.96	129	0.62
Wisconsin	815	1.36	322	0.54	724	1.22	305	0.51
Wyoming	170	1.88	54	0.60	195	2.07	67	0.71
U.S.	**43,510**	**1.46**	**13,582**	**0.45**	**42,642**	**1.41**	**13,470**	**0.45**
Puerto Rico	457	2.35	160	0.82	507	2.58	144	0.73

Source: Fatality Analysis Reporting System (FARS) 2005 Final and 2006 ARF Files, FHWA Traffic Volume Trends VMT Data