

Taking the Measure of DWI: State Rankings & "Vehicle Miles Traveled"

By Lauren Kerby

On March 7, 2008, New Mexico Governor Bill Richardson kicked off the St. Patrick's Day Super Blitz with the triumphant announcement that our state is no longer among the top ten states with the highest level of alcohol-related fatalities per mile traveled (NMDOT).

Per mile traveled? What does the number of miles traveled have to do with lives lost to DWI?

Everything, according to the system of measurement adopted by the National Highway Traffic Safety Administration (NHTSA) in recent years, following the lead of the Federal Highway Administration (FHA). This new system calculates state DWI fatality rates based on the number of vehicle miles traveled and excludes the deaths of alcohol-impaired pedestrians, equestrians, and cyclists killed by motor vehicles. Incidentally, New Mexico has many such deaths compared to other states, and their exclusion from the equation affects the results dramatically.

NHTSA has employed various methods of calculating DWI fatality rates since the early 1970's, ranging from the percentage of DWI fatalities out of the total number of vehicle fatalities to the number of DWI fatalities per licensed driver in the state. NHTSA does not, however, rank the states: that is done by the media and politicians, ostensibly as a means of tracking relative progress.

In the 1990's, the rates and rankings were typically calculated in a straightforward fashion by dividing the number of deaths in a state by the Census Bureau's population estimate for that state. The resulting rate of DWI deaths per capita was used to rank the states: the higher the rate, the lower—and worse—the ranking.

Under this system, New Mexico topped the chart in 1996, with most DWI fatalities per capita in the US. Nine years later, matters had improved but not by much: New Mexico ranked 6th in the nation in 2005, with a DWI rate of 9.2 deaths per 100,000 people (Flint).

In 2006, a decade after New Mexico's first-place finish, there were 165 DWI deaths out of a state population of 1.95 million, yielding a per capita rate of 8.45 fatalities per 100,000 people. Is that enough to take us off the top-ten list? Not quite. If fatalities are calculated using NHTSA's mileage-based system, New Mexico ranks 17th. However, based on the per capita rates as calculated for all states, New Mexico ranks 8th (Flint).

So why did NHTSA switch to the mileage-based system? Their reasoning is that if more miles are driven, the chances of a DWI collision increase, and therefore the number of miles should be taken into account rather than just the population. But New Mexico's DWI problem stems from the fact that New Mexicans drink a lot and drive a lot compared to other Americans; to use the size of our state and the requisite increase in mileage as an explanation for higher death rates is to ignore half the problem (Flint). A fatal collision is a fatal collision, regardless of how many miles preceded it.

When analyzing a transportation system, it is logical for the FHA to calculate death rates based on mileage rather than per capita. The reasoning is that the more people drive on the road, the more crashes are expected, and the correspondingly higher death rate is not the fault of the system. However, in the analysis of the spread of a disease—and alcoholism is a disease according to the Center for Disease Control (CDC)—the rate is always calculated per capita (Flint).

Using the mileage-based method, DWI rates are treated like any other traffic safety problem. They are calculated as if drunk driving is an impairment of the road and the vehicle, rather than an impairment of the driver. In reality, these deaths are caused by human behavior, and thus should be studied and analyzed using the same method as that used for any other public health death.

To examine the effect of these two different systems on national rankings of DWI fatalities, let's compare New Mexico and Hawaii. Using the per capita method, the 2006 rankings put New Mexico 8th and Hawaii

24th. However, using the mileage-based method, New Mexico comes in at 17th while Hawaii is 10th, due to its small size and low mileage (Flint).

Nevada provides a similar example. With 160 deaths for its population of 2.5 million, it ranks 16th based on population as compared to New Mexico, which has about the same number of deaths but a significantly smaller population and therefore ranks 8th. However, based on vehicle miles traveled, Nevada is 8th and New Mexico is 17th. The statistics indicate that Nevada is worse than New Mexico when it comes to DWI, when in reality they have the same number of deaths, a larger population, and simply drive fewer miles (Flint).

In the end, though, this problem is not about rankings or the system used to calculate them. The real question is whether or not DWI fatality rates are decreasing. From 2005 to 2006, DWI fatality rates per capita in New Mexico dropped from 9.2 to 8.45 per 100,000 people, approximately a twelve percent drop (Flint). But preliminary reports for 2007 indicate 176 DWI fatalities in New Mexico (NMDOT). Divide that by New Mexico's population of 1.97 million (U.S. Census Bureau), and the DWI fatality rate per capita is 8.93 fatalities per 100,000 people, which is in fact a three percent increase from 2006. We may be off the top-ten list using the current analysis trend in Santa Fe, but the DWI problem is far from solved. More real effort and less manipulation are needed to get NM out of the top ten for good.

State Rates and Ranks for Alcohol-Related Crash Deaths per 100,000 Population, 2006

State	Deaths	Rate	Rank	State	Deaths	Rate	Rank
Alabama	416	9.03	6	Montana	114	12.10	2
Alaska	20	3.03	47	Nebraska	74	4.17	33
Arizona	484	7.84	9	Nevada	160	6.41	16
Arkansas	203	7.23	12	New Hampshire	48	3.64	41
California	1,506	4.13	35	New Jersey	270	3.10	45
Colorado	192	4.04	36	New Mexico	165	8.45	8
Connecticut	117	3.33	43	New York	463	2.40	49
Delaware	51	5.95	20	North Carolina	482	5.44	25
Dist of Columbia	16	2.75	48	North Dakota	44	6.89	14
Florida	1,215	6.71	15	Ohio	409	3.56	42
Georgia	524	5.60	23	Oklahoma	221	6.16	18
Hawaii	71	5.50	24	Oregon	163	4.39	27
Idaho	88	6.01	19	Pennsylvania	530	4.26	31
Illinois	492	3.83	39	Rhode Island	33	3.13	44
Indiana	275	4.35	28	South Carolina	463	10.71	4
Iowa	128	4.30	29	South Dakota	70	9.00	7
Kansas	143	5.17	26	Tennessee	439	7.26	11
Kentucky	236	5.60	22	Texas	1,487	6.33	17
Louisiana	415	9.67	5	Utah	59	2.32	51
Maine	55	4.14	34	Vermont	26	4.20	32
Maryland	223	3.97	37	Virginia	327	4.28	30
Massachusetts	153	2.37	50	Washington	247	3.85	38
Michigan	382	3.78	40	West Virginia	133	7.33	10
Minnesota	159	3.08	46	Wisconsin	319	5.74	21
Mississippi	337	11.59	3	Wyoming	69	13.46	1
Missouri	409	7.01	13	USA	15,121	5.05	

Sources: Death counts from USDOT NHTSA FARS using NHTSA's known-or-imputed alcohol estimates, where the highest BAC in the crash was .08 or higher. Population estimates are from the US Bureau of the Census.

About the DWI Resource Center, Inc. Founded in 1993, the DWI Resource Center, Inc. is committed to reducing the social and economic impact of drunk driving in New Mexico through education, public awareness, prevention, and research. The Center serves as a central clearinghouse of DWI information and issues, providing community leaders with statistical information and analysis to assist them in creating localized plans to reduce DWI death and injury in New Mexico. The Center has a professional staff of full-time and contractual employees with expertise in marketing, public relations, electronic media, data and statistical analysis, project management, program administration, and legal advocacy.

Sources:

Flint, Steven (May 2008). "FAQ Regarding New Mexico's Alcohol-Related Crash Death Ranking." DWI Resource Center. <http://www.dwiresourcecenter.org/downloads/pdf/nm2006rankfaq.pdf>. Retrieved July 31, 2008.

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