FAQ regarding New Mexico's Alcohol-Related Crash Death Ranking

Steven Flint
DWI Resource Center, May 2008

How does New Mexico compare with other states for alcohol-related crash death rates? For 2006, New Mexico ranked eighth worst among the 50 states plus DC, the most recent rankings available. That's based on the states' rates of estimated alcohol-related crash deaths per 100,000 population, where the highest BAC estimate in the crash was .08 or higher for blood alcohol concentration.

How are those rates calculated? The counts of alcohol-related crash deaths are estimated by the US Department of Transportation's National Highway Traffic Safety Administration based on data submitted by the states and its own further analyses to estimate alcohol involvement for drivers and pedestrians in those crashes where involvement of alcohol was not fully reported by a State. That's the only uniform way to obtain consistent measures for comparing the states, since states investigate crashes to differing degrees according to location, type of crash, scope of injuries, survival of drivers, and so on. Dividing those counts by the US Census Bureau's population estimates for the states for 2006 provides rates by state, and those rates then determine ranks.

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.

How did New Mexico rank for 2007? That will not be known until September, 2008, or later, since the states require time to complete their 2007 reporting to the USDOT and the USDOT requires time to perform its analyses.

How does the ranking of eighth for 2006 compare with New Mexico's rank in prior years? Using the same rank methods for prior years, that is an improved rank for New Mexico. In 2005, the State ranked sixth, fourth in 2004, and sixth in 2003. Here is a table showing New Mexico's ranks in recent years:

Year	2000	2001	2002	2003	2004	2005	2006
NM Rank	5	4	5	6	4	6	8

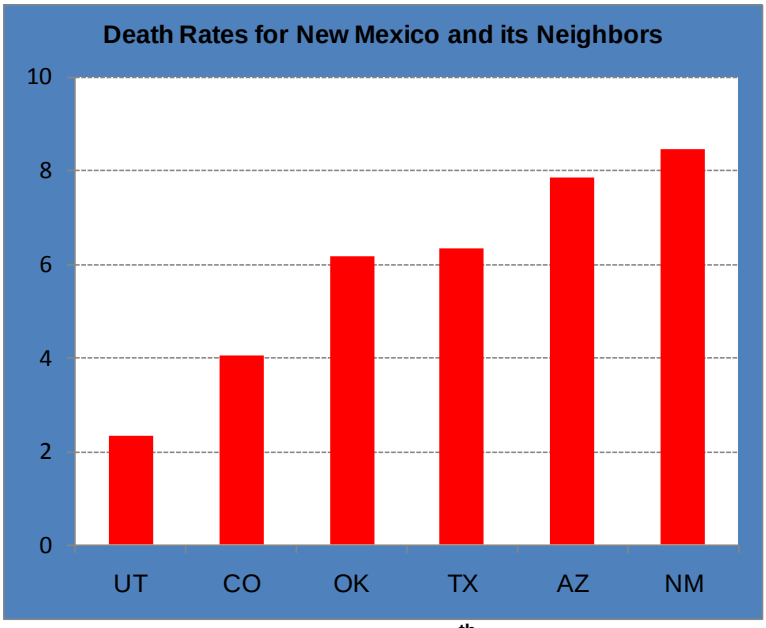
So did New Mexico's rank improve for 2006 because its rate went down, or because other states' rates got worse? The good news is that New Mexico improved in rank because its rate went down. If it had remained at the 2005 rate of 9.2 deaths per 100,000, New Mexico would have ranked sixth in 2006, as it did in 2005.

Didn't New Mexico used to rank first, with the highest rate in the nation? New Mexico ranked first in 1996.

Year	1993	1994	1995	1996	1997	1998	1999
NM Rank	1	2	2	1	3	4	4

What states had higher rates in 2006? The higher rates for 2006 were in Wyoming, Montana, Mississippi, South Carolina, Louisiana, Alabama, and South Dakota.

How did our rate compare to our neighbor states' rates? New Mexico's 2006 rate of 8.45 deaths per 100,000 population was 264% higher than Utah's rate of 2.32. It was 109% higher than Colorado's rate of 4.04. It was 37% higher than Oklahoma's rate of 6.16. It was 34% higher than Texas's rate of 6.33, and it was 8% higher than Arizona's rate of 7.84. Another way to say the same thing is that a person in New Mexico in 2006 was 3.6 times more likely to die in an alcohol-related crash than a person in Utah, and 2.1 times more likely to die in an alcohol-related crash than a person in Colorado, for example.



Recently I read that the Governor's office says New Mexico now ranks 17th for DWI death rate. Is that right? The Governor's office chose this year to publicize a different ranking scheme, one that leaves out some alcohol-related deaths and that ranks per mile traveled rather than per population. On their new scale New Mexico's 2006 rank is 17th.

What deaths did they omit from their ranking? They excluded crash deaths of alcohol-impaired pedestrians killed by motor vehicles. Since New Mexico tends to have a lot of such deaths compared to other states, our rank for non-pedestrian deaths therefore makes us look better. Their method also excluded cases of alcohol-impaired bicyclists and alcohol-impaired equestrians killed by motor vehicles.

Well, alcohol-impaired pedestrians aren't driving drunk, so it's fair to exclude them, isn't it? Impaired-driving deaths attract more focus because impaired-driving problems and prevention tactics get more attention, not because impaired-driving deaths matter and impaired-pedestrian crash deaths don't. From a public health perspective, there is no good reason to exclude impaired-pedestrian deaths, and doing so hides the importance of addressing them.

Using the Governor's preferred rate method (deaths per mile traveled) but including the alcohol-impaired pedestrians, then, what would our rank have been? For 2006, New Mexico would have ranked eleventh among the states for alcohol-impaired crash deaths per 100 million miles traveled, rather than 17th. That's from NHTSA estimates of crash deaths where one or more vehicle operators or pedestrians was at .08 or higher. For prior years, our ranks were:

Year	2000	2001	2002	2003	2004	2005	2006
NM Rank	9	8	5	7	5	7	11

That's good, though, 11th instead of 8th. So is ranking per mile traveled a better way to rank than per population? Ranking per mile traveled rather than per population is in effect saying, "If you factor out that New Mexicans drive long distances compared to others, our alcohol-related crash problem leaves us only eleventh, instead of eighth." But people driving many miles is a big factor in how many deaths and injuries our families face. You can say New Mexico's high death rates happen because we drive a lot and we drink a lot, compared to other Americans, so factoring out how much we drive leaves out at least half the problem. However, New Mexicans have to live with the challenge of long distances to drive, and leaving that out hides that important reality.

Public health deaths are commonly studied using deaths per population, whether for AIDS, cancer, homicide, or unintentional injury. Mileage-based death rates are commonly used for analyzing transportation system problems, where the thinking is that if people drive more , more crashes are expected, and accepted as not a "fault" of the transportation system. But for public health more deaths are always a problem, even if they do come from more miles. If New Mexicans had driven twice as far with the same death count in 2006, there is no good sense in which we would want to say they were therefore "safer" because more travel had been involved. Progress against alcohol-related crash deaths comes from the public health perspective.

Does the ranking method really matter that much? You get very different answers from the per-mile ranking, and those answers don't help for understanding the issues, which is the very thing a rate should help with. Compare Hawaii and New Mexico, for example. Hawaii has 5.50 deaths per 100,000 population, while New Mexico has 8.45. New Mexico's rate is 54% higher than Hawaii's, or in other words a person in New Mexico was 54% more likely to die in an alcohol-related crash in 2006 than a person in Hawaii. On its population rate basis, New Mexico ranked eighth among the states in 2006, Hawaii ranked 24th.

Now try comparing New Mexico with Hawaii using rates per 100 million miles traveled. Hawaiians drive comparatively little, since the oceans impede vehicle travel. Net effect: the Governor's ranking scheme placed Hawaii tenth and New Mexico 17th, even though New Mexico had far more deaths in total and far more deaths per person.

But Hawaii is an exceptional case, no? Consider Nevada, ranked eighth on the Governor's ranking scheme that ranks New Mexico 17th. NHTSA estimates 160 deaths for its 2.5 million population, and 165 deaths for New Mexico's 1.94 million. Nevada's oddsmakers would say that a person in New Mexico is 32% more likely to die in an alcohol-related crash than one in Nevada, and on rank per population New Mexico is eighth and Nevada is 16th. But the Governor's statistics try to tell us that Nevada is "worse" because they have about the same number of deaths while driving fewer miles.

Are there other problems with using vehicle mile rates? There are two immediate problems one encounters. The first is that the state travel volume data is not very stable or consistent or reliable or well-studied, so its estimates vary radically over time and among states. Estimates are calculated by

each state using complex computations based on diverse traffic counters placed at various locations, with adjustment factors to try to correct for lack of measures on road segments without counters, times when counters were not working, malfunctioning counters, and so on. When problems are found, states adjust their calculations, but very often they do not recalculate prior year estimates. Though prepared with great effort and in good faith, these problems travel volumes extremely hard to use for comparing crash rates across time and across space, since the methods keep changing.

Of course, population counting methods change, too, but demographic science is extremely advanced and also high-priority, since so much depends upon it, so methods and counts are far more consistent across time and from place to place. When changes in methods do occur, a lot of attention goes to studying the changes' effects and to adjusting prior figures for consistency with the new method.

What's the second issue? The second problem directly relates to why we want rates to begin with. Crashes are a major public health problem for New Mexico's people, and so we wish to use rates to understand the nature of those problems and look for solutions. In public health generally and traffic safety in particular, one wishes to look at variations in the scope of the problems, geographically and demographically. One wants to learn what age groups are most at risk, what ethnic groups, whether it's urban or rural most, male or female, for example. Population rates let one do that, comparing teenage males' risk in Kansas versus New Mexico, for example, since good data is available on both teen deaths and teen populations by sex for both states. Mile-based rates do not help with that at all, since state-specific comprehensive data on miles traveled by passenger age and sex are not available across time. In New Mexico race and ethnicity are huge factors in traffic safety, with Native Americans dying in 2005 crashes at a rate per population 184% higher than non-Hispanic whites, and Hispanics dying at a rate 31% higher than non-Hispanic whites. The State's safety programs don't nearly address these genocide-scale differences as they should, and if the State continues to rely on mileage rates they never will, since travel volumes by race or ethnicity are not available. Nor would they be that useful if they were available, because the issue is how many Native Americans die, not how many miles they drove while dying.

So what must we do to really be 17th worst by population rate, rather than eighth? We could have ranked 17th if our estimated deaths had been 123 instead of 165 – that is, if 42 fewer people had died on our roads. By coincidence, the state that ranked 17th for alcohol-related crash deaths per 100,000 population was our own neighbor, Texas. New Mexico's death rate was 8.45, Texas's 6.33.

But dropping by that much is impossible, isn't it? Under Governor Anaya, New Mexico alcohol-related crash deaths dropped 22% below the lowest count ever previously recorded for the State. Under Governor King, in 1991-1994, they dropped 20% below the lowest level ever recorded before his term began. Under Governor Johnson, they dropped 18% below the lowest level ever recorded before he took office.

That is quite a history of achievement. If Governor Richardson had matched that history in 2006 by lowering counts 20% below the lowest previous record, as his predecessors did, deaths in 2006 would have fallen to 133 instead of 165, and we would have ranked 14th for population rate rather than 8th. Using the Governor's new ranking method, with such a real 20% drop in deaths we would have ranked about 24th rather than 17th. Just for perspective, consider that Utah had 59 deaths rather than New Mexico's 165, according to NHTSA's estimates. Its population is higher than New Mexico's and its geography is comparable.