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Highlights

- Motor vehicle related deaths have decreased in New Mexico. Despite improvements in the last ten years, the state still ranks high in comparison with other states.
- Nationally, motor vehicle fatality rates have been decreasing to an all time low in 2000 of 15.6 per 100,000 population.
- As a percentage, more Native Americans die in NM as a result of motor vehicle crashes than any other ethnic group - six times more than Anglos and two times more than Hispanics.
- In 2000, the alcohol-involved fatality rate for Native Americans between 25 and 34 was 10 times the rate for Anglos.
- A 55% decline in NM of fatalities in all ethnic groups from 1990-2000 supports the idea that DWI programs implemented in the early 1990's have had a positive effect on the reduction of fatal, alcohol-involved accidents.
- New Mexico had the highest alcohol-involved motor vehicle fatality rate in 1990, and the largest percent decrease over the decade.
- Hispanics and Native Americans are over represented in total traffic fatalities and in alcohol-involved traffic fatalities in NM

Motor Vehicle Related Deaths in New Mexico: Alcohol and Ethnicity

History and Overview of Motor Vehicle Accidents in the U.S. and New Mexico

Accidents are the fifth leading cause of death in the United States. According to the National Safety Council (NSC), motor vehicle crashes are the leading cause of accidental death. In 1998, motor vehicle crashes accounted for more than 55% of all accidental deaths among all ages. Motor vehicle crashes are the leading cause of death for persons aged 4 to 33. Motor vehicle fatal crash rates are highest for young (15-24) and old (over 75) drivers. Males have higher fatal motor vehicle crash rates than females (NSC, 2001).

Historically, the U.S. has large numbers of motor vehicle crashes and high motor vehicle mortality rates. Motor vehicle crashes and motor vehicle mortality rates have long been a subject of study in the U.S.

The use of alcohol is a contributing factor in motor vehicle crashes and fatalities. In the U.S., traffic fatalities in alcohol-related crashes rose 4% from 1999 to 2000. (National Highway Traffic Safety Administration, 2000). NHTSA data shows that the 16,653 alcohol-related deaths represent a 25% reduction from the 22,084 alcohol-related deaths in 1990. In 1990, 50% of all vehicle deaths involved alcohol. Approximately 1.5 million drivers were arrested in 1998 for driving under the influence of alcohol or drugs (NHTSA, 2001).

U.S. Motor Vehicle data, 2000	
Total crash injuries -	3,189,000
Total deaths -	43,000
Economic cost of crashes -	$201.5 billion
Alcohol-related costs -	$29.1 billion
Percent of alcohol related deaths -	40%
Estimate of population that will have a car crash during their lifetime -	30%
Alcohol-related motor vehicle crashes -	310,000
Alcohol related deaths -	16,653

Source: National Safety Council, 2001 and National Highway Traffic Safety Administration, 2000.

Research shows that individuals between the ages of 15 and 24, are more likely to drink and drive, and have resulting motor vehicle crashes. It is also established that males are more likely to be involved in motor vehicle crashes and fatalities than females.

This study focuses on alcohol and non-alcohol-involved motor vehicle crash fatalities specifically by major ethnic groups in New Mexico. The objective of the study is to understand more completely alcohol-involved motor vehicle crash fatalities and

Policy Implications

- Differences in the age distributions of the three main ethnic groups have implications for traffic safety and DWI policy now and in the future.
- Among Native Americans, almost half of alcohol-involved deaths are pedestrians over the age of 25.
- The New Mexico Anglo rate for alcohol-involved fatalities has fallen to approximately the same level as the overall national rate.
- The study suggests that rural residence and socioeconomic variables are not the reason for the difference in alcohol-involved fatality rates by ethnic group.
- Hispanics and Native Americans comprise a larger share of the fatalities in all categories even though their share of the population is smaller than the Anglo group.

Summary

The study uses 1982-2000 data from three sources to examine the differences in alcohol-involved deaths and fatality rates for the three major ethnic groups in New Mexico. Data and trends are provided for the U.S. and New Mexico. The study explains that Native Americans and Hispanics in New Mexico comprise a larger share of alcohol crash fatalities than the general population would indicate. Several conclusions and recommendations are offered for policy makers.

how ethnicity and other variables affect these deaths. The aim of the study is to provide supporting research to agencies seeking to reduce the number of alcohol-involved deaths in New Mexico.

Focus on Racial/Ethnic Groups and New Mexico

The study focuses on ethnic groups as the major independent variable and New Mexico for four main reasons. The first is that those who work and do research in the area of motor vehicle crashes and fatalities have largely ignored this line of research. There is a limited amount of empirical research focusing specifically on ethnic groups and their relationship to motor vehicle crashes. Second, New Mexico is an ideal site for this research. New Mexico, has a diverse and unusual ethnic balance that is unique in the U.S. New Mexico has large numbers of Native Americans, Hispanics, and Anglos. Prior research in New Mexico (Guerin, 1997) found that minorities — Hispanics and Native Americans — were over-represented in motor vehicle crash fatalities in general and alcohol-related motor vehicle crash fatalities specifically. Third, because New Mexico consistently ranks high in the nation in various measures of motor vehicle fatalities, it is important to conduct research that may lead to further understanding of this situation. Fourth, and related to the third, is the perception by the public that a particular minority group, Native Americans, are disproportionately responsible for motor vehicle crashes and fatalities, especially alcohol-related crashes.

New Mexico and Motor Vehicle Crashes

During 2000, New Mexico had an accidental death rate of 56.2 per 100,000 population. The U.S. accidental death rate was considerably lower at 35.3. As a sub-category of accidents, motor vehicle crashes constitute a large percentage of all accidental deaths. In 2000, motor vehicle fatalities accounted for 44% of accidental deaths in the U.S. and 42% of all deaths in New Mexico (NSC, 2001). In 1998 heart disease, cancer, and accidents were the leading causes of death in New Mexico. Deaths from heart disease and cancer were lower in New Mexico than the rest of the nation, but accidents accounted for a 75% greater proportion of death in New Mexico than the nation. Accidents in 1999 were the leading cause of death for New Mexicans 1 to 44 years old (New Mexico Selected Health Statistics, 2001).

New Mexico ranks high in the nation in various measures of motor vehicle deaths. In 2000, while the U.S. had a mileage death rate (deaths per 100 million vehicle miles traveled) of 1.6, New Mexico and ten other states (Florida, Montana, Idaho, Arizona, South Dakota, Arkansas, Louisiana, Mississippi, West Virginia and South Carolina) had rates above 2.0. In 2000, New Mexico was in the top ten states in the nation in registration death rates (deaths per 100,000 vehicles registered) with a rate of 2.7. This was considerably higher than the U.S. rate of 1.9. Only Mississippi (4.0), Arkansas (3.5), South Carolina (3.4), and West Virginia (2.9) had higher rates than New Mexico. In 2000, New Mexico's motor vehicle fatality rate per 100,000 population was 24, while the U.S. rate was 15.6 or 35% less. Only five states were higher than New Mexico (NSC, 2001). Taken together, mileage, registration, and population death rates, reflect a disproportionate number of deaths as a result of motor vehicle crashes in New Mexico.

Cause of death varies considerably within New Mexico ethnic groups. Accidents are the leading cause of death among Native Americans (New Mexico Selected Health Statistics, 2001). Hispanics have the second highest percentage of deaths due to crashes and Anglos have the lowest percentage of deaths due to crashes. As a percentage, more than six times as many Native Americans (13%) as Anglos (2%) and more than twice as many Native Americans as Hispanics (6%) die because of motor vehicle

crashes (New Mexico Selected Health Statistics, 2000).

National and New Mexico Motor Vehicle Crash Fatality Trends

National motor vehicle fatality rates have been decreasing, and in 2000 reached an all time low of 15.6 per 100,000 population. Between 1990 and 2000, motor vehicle death rates decreased 17% and the total number of fatal motor vehicle crashes decreased 8%. The total number of fatalities in 2000 was an estimated 43,000, the lowest number since 1992, and the death rate per 100 million vehicle miles traveled was the lowest ever (NSC, 2001).

Motor vehicle crash fatalities have also decreased in New Mexico. New Mexico has improved according to the three primary measures for motor vehicle fatalities: mileage, registration, and population death rates. New Mexico's mileage death rate has improved from the highest in the U.S. in 1991 to the tenth highest rate in 2000. New Mexico's registration death rate improved from the second highest in 1991, to a tie with five states in 2000. New Mexico had the highest population death rates in 1991, but improved to sixth in 2000. Overall, New Mexico has improved traffic safety by successfully reduced the motor vehicle death rate in all categories.

Although New Mexico has seen a decrease in motor vehicle crashes in the last ten years it still ranks high in comparison with other states. It is important to determine the cause for New Mexico's high fatality rate.

Motor Vehicle Fatalities and Alcohol Involvement in the U.S. and New Mexico

According to the National Highway Traffic Administration (NHTSA, 2001), about 40% of all traffic fatalities in 2000 involved an intoxicated driver or pedestrian. In 1999, approximately 1.5 million drivers were arrested for driving under the influence. This is an arrest ratio of 1 to every 121 licensed drivers in the U.S. From 1990 to 2000, intoxication rates for drivers of all age groups decreased. Drivers 16 to 20 years old had the largest decrease, followed by drivers 25 to 34 years old. During 2000, based on blood alcohol content (BAC) rates of .10 or greater, only 22% of fatally injured intoxicated drivers used safety belts; 32% of fatally injured impaired drivers (BAC of .01 -.09), and 51% of fatally injured sober drivers (NHTSA, 2001).

Nationwide fatally injured drivers with BAC levels of .10 or greater are six times as likely to have a DWI conviction than a fatally injured sober driver. Almost one third of all pedestrians 16 years old or older killed in motor vehicle crashes were intoxicated. Alcohol-involved motor vehicle crash fatalities are more likely to occur at night and on weekends (NHTSA, 2001). A recent analysis of national data for 1990-1994 (Voas et al. , 2000) found that compared to other groups Native Americans and Mexican Americans have a higher percentage of fatalities involving alcohol. Among traffic fatalities for Native American more than 75% involved alcohol. For Mexican Americans, the data showed more than 50% involved alcohol.

A comparison of similar states (Table 1) shows New Mexico had the highest alcohol-involved motor vehicle fatality rate in 1990, and the largest percent decrease over the decade. The smoothed percent change in the table uses data for 11 years rather than just the endpoints to minimize the effect of year-to-year fluctuations. While the alcohol-involved fatality rate in New Mexico has fallen, it is much higher than the national rate.

Several factors affect alcohol involvement in fatal motor vehicle crashes including: population demographics, driver age, driver sex, age of vehicles, pedestrian fatalities, degree of urbanization, and type of vehicles. These factors vary substantially from state to state.

Table 1. Alcohol-Involved Fatalities per 100,000 Population for Selected States

			% change	
	1990	2000	1990-2000	smoothed
New Mexico	20.8	11.3	-46	-44
Wyoming	16.1	9.2	-44	-20
Montana	14.8	12.2	-18	-18
Colorado	7.7	5.9	-22	-31
Oklahoma	8.6	6.4	-25	-18
Texas	12.0	9.1	-24	-23
Arizona	11.9	8.9	-25	-25
Utah	3.8	4.0	+7	-28
South Dakota	11.4	10.7	-6	-8
Mississippi	15.2	13.3	-12	-9
United States	8.9	5.9	-34	-34

Source: FARS and US Census population estimates

Purpose of the Study

The purpose of this study is to examine the differences in alcohol-involved fatalities and fatality rates across the Anglo, Hispanic, and Native American ethnic groups using an objective measure of alcohol involvement.

This analysis is based only on people killed in traffic crashes. Fatal crashes tend to be idiosyncratic and unlike less severe crashes. The results of the study will not necessarily extend to less severe crashes or other issues associated with alcohol consumption.

Findings:

Population description

The population of New Mexico has increased 34%, from 1.36 million in

Methodology

Data

Three data sets were combined for the study. The complete set consisted of data from the Fatality Analysis and Reporting System (FARS) for 1982-2000, data from the Office of the Medical Investigator (OMI) for the same period, and the fatalities tracking log (FATALLOG) file from the New Mexico State Highway and Transportation Department.

The FARS data is a national data set of traffic fatalities from all 50 states. Only crashes specified for New Mexico were retained for this study, and specifically, only person level data of people that died because of a crash were retained.

The Office of the Medical Investigator performs a medico-legal investigation on all unattended deaths in New Mexico. This includes deaths in traffic crashes. The resulting database includes toxicology information (i.e., BAC), the decedent's name and ethnicity. Ethnicity information is not available elsewhere for traffic crash victims. People who are fatally injured in a traffic crash in New Mexico but are transferred to a hospital out of state (usually in Texas) are not captured in OMI's data. Also, the OMI does not have jurisdiction on Federal lands (e.g. tribal reservations), but usually investigates the death on a consulting basis.

The last crash data set used was the New Mexico state crash data (FATALLOG) for the period 1989 to 2000. This data is provided by the New Mexico State Highway and Transportation Department, and contains the victim's name and other useful information. It is a tracking file used to ensure that fatalities should be in the FARS file are not missed.

Population estimates for 1981-1989 and 1990-1999 were obtained from the U.S. Bureau of the Census. Additional estimates by the UNM Bureau of Business and Economic Research (BBER) for 1997-2000 were used. The Census estimates for 1997-1999 are substantially lower than expected and the BBER estimates fit the trend much better. The 2000 Census data was adjusted upward to reflect a July 1st population like the other estimates.

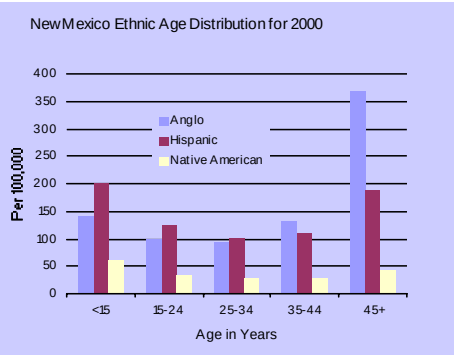
Data Matching

Data from the FATALLOG files and FARS files were combined first for the years 1989-2000. The inclusion of the FATALLOG data set was used to provide two more variables to more accurately combine the records of the FARS and OMI data sets: last name and first name. A 100% match occurred for all years except 2000, where the FATALLOG file contained five more observations than the FARS file.

The combined FARS and FATALLOG files were matched with observations from the OMI data for the years 1989-2000 because the combined FARS/FATALLOG files and the OMI files included the two additional variables of first and last name. This allowed a more accurate combination of the two data files. Observations from the FARS/FATALLOG data and the OMI data were matched based on county, age, gender, first name, last name, month of death, day of death, hour of death, and minute of death variables. For the years 1982-1988, the FARS and OMI data were matched based on the preceding variables except first and last name.

The OMI data contained more observations than the FARS data for each year. This is due to differing definitions of vehicle-related deaths. For example, vehicle-related deaths on private property are not added to the FARS data, while they are added to the OMI data. Additionally, some of the observations in the FARS data do not appear in the OMI data because the crash occurred in New Mexico but the person is transported and dies in an out-of-state hospital. The vehicle death then becomes the responsibility of the out-of-state hospital and does not appear in the New

1982 to 1.83 million in 2000. In that time, the Anglo population increased 16%, the Hispanic population by 44%, and the Native American population by 79%. In 1982, the population was 53% Anglo, 37% Hispanic, 8% Native American and 2% Other. In 2000, the population was 46% Anglo, 40% Hispanic, 11% Native American and 4% Other.



The population of New Mexico is relatively young. In 2000, 23% of the population was under the age of 15 and 15% was between 15 and 24. Only 34% of the population is over age 45. The age structure of the population differs considerably by ethnic groups and has implications for traffic safety and DWI policy now and in the future.

Overall fatality rates

For the study period (1982-2000) there were 8,678 traffic fatalities in the Fatality Analysis and Reporting System (FARS) that matched Office of the Medical Investigator data (OMI). Of these, 46% had measurable BACs. These were not evenly distributed across ethnic groups. One-third of Anglos, half of Hispanics, and 70% of Native Americans included in the study had measurable BACs. BAC data for Other ethnicity groups was insignificant.

From 1982-2000, total fatalities decreased by almost 20%, while the

Mexico OMI data. Overall, a good matching percentage between the FARS and OMI data files was attained, with an average of 93.4% and a low and high value of 85.7 - 97.2%. The combined FARS/OMI data contained, among other variables, the variables age, gender, ethnicity, and BAC used in the present study.

Population estimates

In the Census data, "Hispanic" is a separate question from race, since Hispanics may be of any race. In New Mexico, as a practical matter, "Hispanic" is a racial category. To generate population estimates for this study, White non-Hispanic is labeled "Anglo" and White (and "other race") Hispanic is labeled "Hispanic." Other racial groups, i.e., Native American, African American, and Asian, are not split by whether or not they are Hispanic. This is standard practice in producing population estimates by ethnicity for New Mexico.

Because the African American and Asian populations are so small – together comprising less than five percent of the population – they were grouped together into an "other" category.

Five age groups were used for the study: Under 15, 15-24, 25-34, 35-44, and 45+. These age groups were chosen for relevance to the issue of alcohol-involved traffic fatalities and to provide large enough populations in each age group. The alcohol-involved fatality and crash rates are similar within these groups.

Analytical Approach

Alcohol-involved fatalities are those in which the victim had a measurable blood alcohol content (BAC). This differs from the definition of alcohol-involved fatalities used in crash reporting, which defines a fatality as alcohol-involved, if any driver or pedestrian in the crash was identified as such by the police. Because actual BACs are not available for all drivers in these crashes, it is not possible to apply that definition here.

In New Mexico in 2000, 85% of the people killed in alcohol-involved crashes were alcohol-involved pedestrians, alcohol-involved drivers, or adult (over age 15) passengers of alcohol-involved drivers. This suggests that the difference between the two definitions is not likely to be significant.

Counts of alcohol-involved and non-alcohol fatalities were produced for each combination of age, ethnicity, and year from 1982 to 2000. Only fatalities that were matched were included. Counts were used to compute fatality rates per 100,000 population for all combinations of age group, ethnicity, and year. Rates were also computed for alcohol-involved fatalities excluding pedestrians.

For each year and ethnicity, a total rate and an age-adjusted rate were computed. The total rate is total number of fatalities per 100,000 population. The age-adjusted rate is a weighted sum of the age-specific rates to match a standard population. In this case, the standard population used was the 2000 Anglo population. The age-adjustment compensates for differences in the age structure of the populations across ethnic groups or across time.

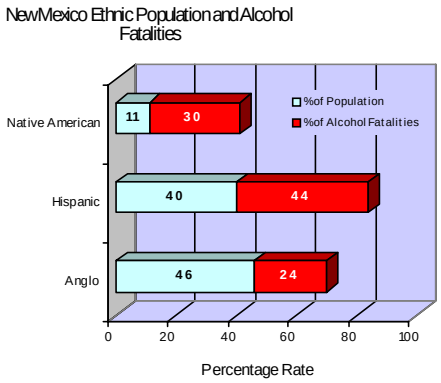
For each rate, the straight-line trend was computed. Most comparisons are made with the trend rather than the individual data points. The trend is less subject to yearly variation. In most cases, the trend was computed on the 1990-2000 period, as the rates for most series were much less stable in the 1980s and there appears to be a difference in slope between the 80s and the 90s. As the 1990s are the primary period of interest, trends were based on those data.

population increased by 34%. Based on 1990-2000 data, the trend in the total fatality rate declined 27%. The trend in age-adjusted Anglo fatalities decreased by 29%, for Hispanics 23%, and 30% for Native Americans.

The age-adjusted overall fatality rate for Native Americans was 48.9 in 2000, compared to 23.8 for Hispanics and 17.3 for Anglos. The Native American rate was 2.8 times the Anglo rate, and the Hispanic rate was 1.4 times the Anglo rate. The rate disparity changed very little from 1990-2000 for Native Americans, and rose slightly for Hispanics.

Alcohol fatality rates

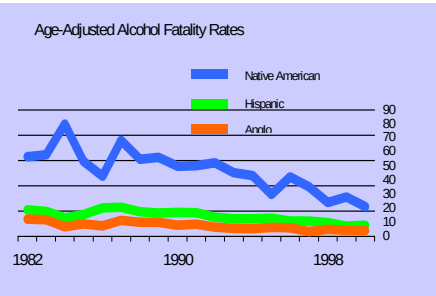
The study counted 3,937 alcohol-involved fatalities from 1982 to 2000; 1,182 Anglos, 1,624 Hispanics, and 1,131 Native Americans. The number of alcohol-involved fatalities declined by 45% from 1982 to 2000 — Anglos declined 66%, Hispanics 36%, and Native Americans 29%. The 1990-2000 trend in the age-adjusted alcohol-involved fatality rates declined similarly for each group.



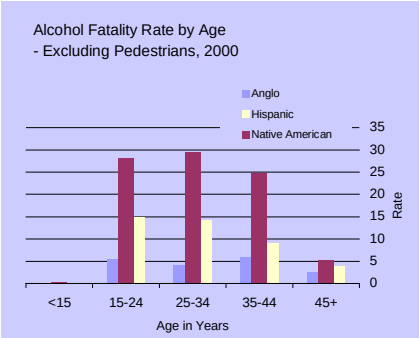
During 2000, Native Americans comprise 11% of the population but they accounted for 30% of the alcohol-involved fatalities. Hispanics comprised 44% of alcohol-involved fatalities and 40% of the population, and Anglos comprised 24% of the alcohol-involved fatalities and 46% of the State

population.

There are too few traffic fatalities for drivers under age 15 with measurable BACs to draw any conclusions. In 2000, the alcohol-involved fatality rate for Hispanics was highest for age 15-24 (16 fatalities per 100,000 population). That rate decreased to 5.2 for people 45 and over. Native Americans between 25-34 had the highest fatality rate (49 fatalities per 100,000 population). Native American drivers age 45 and older had the lowest fatality rate for this ethnic group. For Anglos, the number of fatalities per 100,000 population was relatively stable between all ages. The high for Anglos was 6.7 for drivers 35-44 and 3.0 for Anglos 45 and over. The Native American rate is much higher than the Anglo and Hispanic in all age groups. The alcohol-involved fatality rate for Native Americans between 25 and 34 was 10 times the corresponding rate for Anglos in 2000. Also during 2000, Hispanics between 25 and 34 had an alcohol-involved fatality rate that was three times the corresponding rate for Anglos. Hispanics have much higher rates than Anglos in the 15-24 and 25-34 age groups. They also have higher rates than Anglos in the age 35-44 and 45+ age groups, but the difference is not significant.



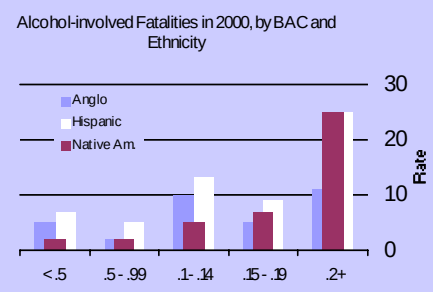
In 2000, the total age-adjusted alcohol-involved fatality rate for Native Americans was four times the Anglo rate. The rate for Hispanics is twice the Anglo rate. The difference is greatest in the 25-34 age group. Even when pedestrian fatalities are excluded, the fatality rate for Native Americans in the



25-34 age group is seven times the Anglo rate and twice the Hispanic rate. Pedestrians represent 41% of alcohol-involved deaths for Native Americans. This is almost three times the number of fatalities for the other two ethnic groups. Among Native Americans, alcohol-involved pedestrian fatalities tend to be over the age of 25. Over the age of 35, almost half of alcohol-involved Native American fatalities are pedestrians.

BAC distributions by ethnicity

BAC levels average .16 for Anglos, .17 for Hispanics, and .23 for Native Americans. The trend in BAC levels over time is down 10 to 15% for Anglos and Hispanics and unchanged for Native Americans.



The data reveal that 25% of Hispanic and Native American fatalities had high BAC levels. This finding should be explored in future research.

Non-alcohol fatality rates

The pattern of non-alcohol fatality rates is not clear. For all three ethnic groups, the trend in age-adjusted non-alcohol fatality rates is essentially flat. There is very little change over time.

The difference in non-alcohol fatalities between ethnic groups is sizeable, but less than the alcohol-involved fatality rates. Hispanics have a non-alcohol fatality rate 1.1 times the Anglo rate. Native Americans have a rate that is 1.6 times the Anglo rate with the largest difference in the 45 and over age group.

Alcohol fatalities in context of non-alcohol rates

The non-alcohol fatality rates for ethnic groups can be interpreted to measure the increased risks from differences in rural residence, socioeconomic factors, and lifestyle choices. The differences between Native American, Hispanic, and Anglo populations are much smaller for non-alcohol fatalities than for alcohol-involved fatalities. This suggests that much of the difference in alcohol-involved fatality rates is not due to factors like rural residence or socioeconomic variables.

A *rate disparity ratio*: "rate disparity for alcohol-involved fatalities to rate disparity for non-alcohol fatalities," can be used as a measure of the impact of alcohol to traffic fatalities, independent of other factors such as rural residence or socioeconomic status. This approach assumes that the factors that lead to higher rates of non-alcohol fatalities are the same for alcohol-involved fatalities.

By applying the rate disparity ratio, Hispanics are 1.8 times the risk for alcohol-involved fatalities as Anglos when factors common to both alcohol-involved and non-alcohol fatalities are controlled for. Native Americans are four times the risk of Anglos. This general finding should be pursued for specific cause in each ethnic group.

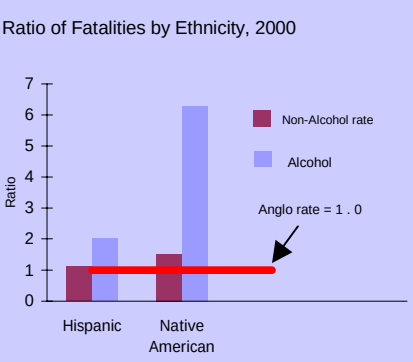
Summary of Findings

Hispanics and Native Americans are

over-represented in total traffic fatalities and in alcohol-involved traffic fatalities in New Mexico. Anglos constitute a smaller share of the fatalities in all categories despite their large share of the population. Hispanics and Native Americans comprise a larger share of the fatalities in all categories even though their share of the population is smaller than the Anglo group.

Native Americans are over-represented in alcohol-involved fatalities by almost a factor of three, while Anglos are under-represented by almost a factor of two. The difference between Native Americans and Anglos is much smaller in regard to non-alcohol fatalities.

Alcohol-involved fatality rates decreased by about 55% in all three ethnic groups from 1990 to 2000. Despite this decline, Native American and Hispanic rates remain much higher than Anglo rates. In 2000, the Native American rate for alcohol-involved fatalities was six times the Anglo rate and the Hispanic rate was two times the Anglo rate. These differences did not change in the study period.



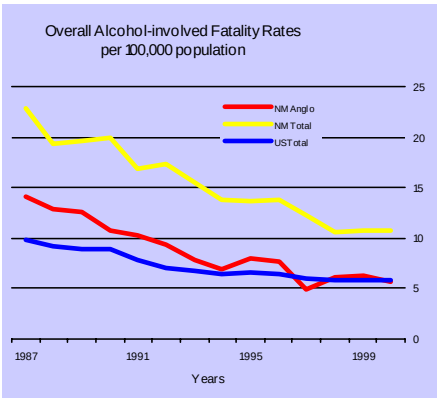
During the period 1990-2000, 41% of Native American alcohol-involved fatalities were pedestrians. This compares to 15% for Anglos and Hispanics. Almost half of Native American alcohol-involved fatalities are pedestrians over the age of 35. Excluding pedestrians, the alcohol-involved fatality rate for Native Americans is four times that for Anglos and Hispanics are two times that for Anglos. These ratios were constant over the time period studied.

BAC levels were much higher for Native Americans on average than for Anglos, and somewhat higher for Hispanics.

Comparison to National Rates

In this study, we have defined an alcohol-involved fatality to be a person who died in a traffic crash with detectable alcohol in his or her system. For the national rate, an alcohol-involved fatality is defined to be a person who was killed in a crash in which a driver or pedestrian had alcohol in his or her system. It is not possible to apply the definition used in our study to the national data, as alcohol involvement is not coded for passengers.

The number of alcohol-involved fatalities in this study understates the total number of alcohol-involved fatalities in two ways. First, some of the people killed in alcohol-involved crashes in New Mexico had no alcohol in their systems, and second, not every fatality could be matched to the OMI data to obtain BAC and ethnicity.

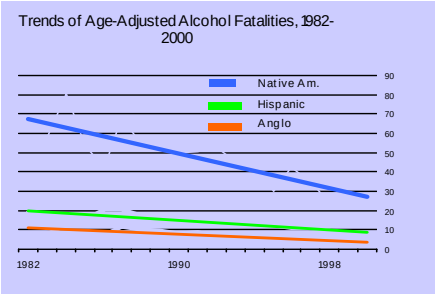


The chart above presents the New Mexico overall alcohol-involved fatality rate, the New Mexico Anglo alcohol-involved fatality rate and the national alcohol-involved fatality rate, using the national definition. The New Mexico rates are somewhat higher than the New Mexico rates reported elsewhere in this study for the reasons noted above.

More importantly, the overall New Mexico rate has always been higher than the national rate, but the gap has been narrowing over the time period noted. The New Mexico Anglo rate for alcohol-involved fatalities has fallen to approximately the same level as the overall national rate. There has been little change in any of the three rates from 1998 through 2000.

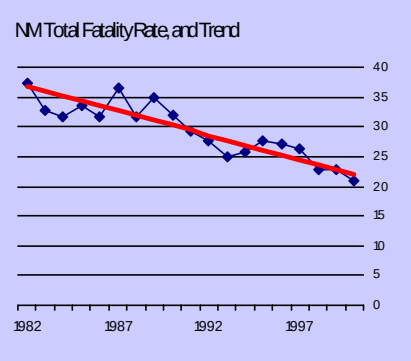
Discussion and Conclusions

The results for this report are based upon crash involved fatalities. Crash involved fatalities are a unique statistical population from non-fatal crashes. As such, the data used in this report are not a representative sample of the total crash population and should be interpreted as applying only to the population of crash involved fatalities.



The 55% decline seen in the chart above for all ethnic groups supports the idea that among other things DWI programs implemented in the early 1990's have had a positive effect in the reduction of fatal, alcohol-involved crashes in New Mexico. This idea is further supported by the insignificant decline of fatal non-alcohol-involved crashes during the same period. However, the results of this study do not prove decisively that the significant decline of fatal alcohol-involved crashes is due solely to DWI programs because: this study was not

designed to investigate the effects of DWI program implementation on fatal alcohol-involved crashes; and no specific correlations between DWI program implementation and fatal alcohol-involved crashes have been established. A separate study would be required to address any such effects.



Assuming that the reduction of fatal alcohol-involved crashes from 1990-2000 is due solely to the implementation of DWI programs, the trends in the chart above indicate that there has been no difference among the three main ethnic groups represented in New Mexico. That is, all three ethnic groups have been served equally by DWI programs implemented during the 1990's. However, an examination of the population characteristics for each ethnic group does not guarantee that the trend lines will continue declining at the same rate.

People under 45 have the highest rates for fatal alcohol-involved crashes. Native Americans and Hispanics make up at least half or more of every age group. Hispanics and Native Americans are a growing majority of the population in the age groups most likely to be involved alcohol related traffic fatalities. Consideration should be given to the development and rapid deployment of DWI programs that are geared specifically toward the younger age classes for these two ethnic groups. The programs should focus on education for prevention. The situation is particularly important for Native Americans, given that half of their current population is under 25. Overall, Native Americans exhibited the highest rate of fatal alcohol-involved crashes.

Ideally, the declining trend line for all ethnic groups should continue, and with greater decreases for the Native Americans and Hispanics. The high rates of alcohol-involved fatalities among Hispanic and Native American populations coupled with a large growing youthful population in these groups imply that progress on alcohol-involved fatalities will require culturally appropriate messages and programs for these groups.

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