

# Traffic Fatalities Trends, 1997

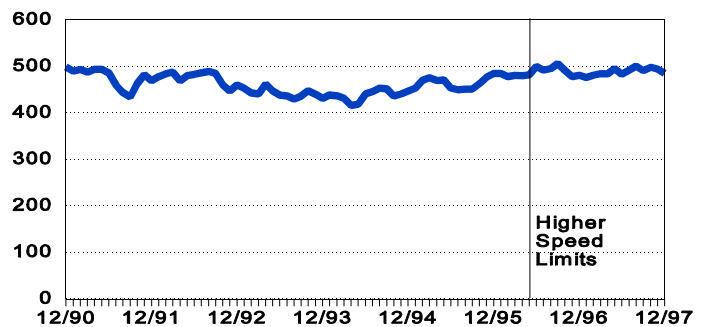
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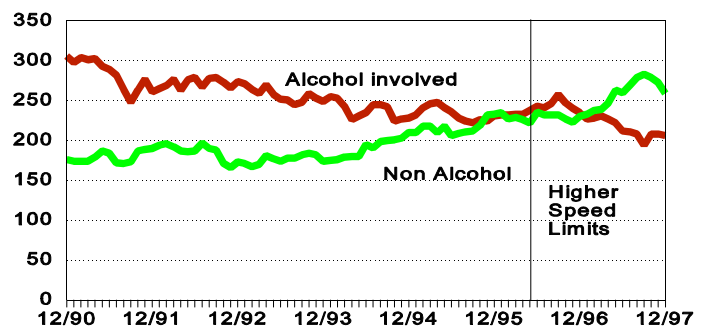
The changing pattern of traffic fatalities in 1997 has generated quite a bit of interest. This analysis is based on preliminary data for 1997 as of early January 1998. The total of 485 traffic fatalities in 1997 is only slightly more than the 481 in 1996. However, the distribution of those traffic fatalities in terms of road system and alcohol involvement is quite different. In particular, alcohol-involved traffic fatalities in 1997 are substantially lower than in 1996, but non-alcohol traffic fatalities are substantially higher. In fact, for the first time the number of non-alcohol traffic fatalities is considerably larger than the number of alcohol-involved traffic fatalities, as shown in the graph below.

The change in the percentage of traffic fatalities that are alcohol-involved does not appear to be simply a change in reporting. I know of no changes in data collection personnel or procedures. Analysis of the data shows that the declines in alcohol-involved traffic fatalities are in different categories than the increases in non-alcohol traffic fatalities. This is not the pattern one would expect to result from a change in reporting.

**Total Traffic Fatalities**  
12 Month Running Totals



**Traffic Fatalities**  
12 Month Running Totals



## Alcohol-involved Traffic fatalities

Part of the reason the decrease in alcohol-involved traffic fatalities from 1996 to 1997 is so dramatic is that 1996 had more alcohol-involved traffic fatalities than each of the prior two years.

There was a noticeable decline in the number of alcohol-involved traffic fatalities per month in the last quarter of 1996, and that lower level has persisted through 1997. In 1997 there were 173 alcohol-involved fatal crashes, resulting in 206 traffic fatalities. For comparison, over the past few years we have had about 200 alcohol-involved fatal crashes resulting in about 230 traffic fatalities each year.

When the trends in alcohol-involved traffic fatalities are examined by road system, it appears that there is a decrease on all road systems. In 1996, the numbers of alcohol-involved traffic fatalities were above recent averages on the rural Interstate system. In 1997, alcohol-involved traffic fatalities dropped to a level just below the 1993-1995 average.

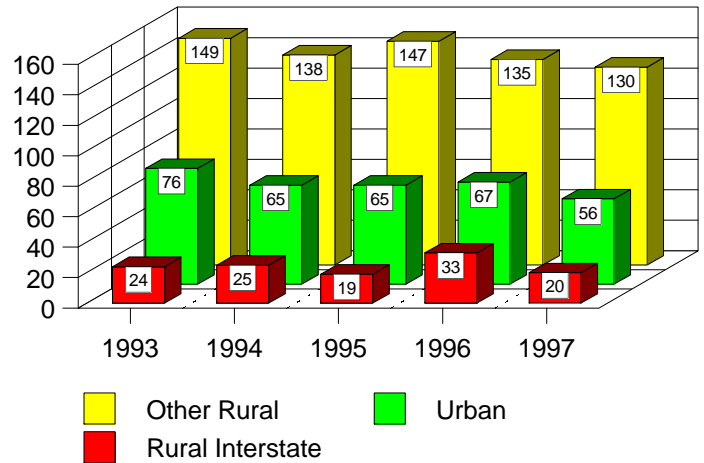
San Juan and McKinley counties have shown the sharpest declines in alcohol-involved traffic fatalities from 1996 to 1997, dropping from a total of 62 to 37.

The age distribution of alcohol-involved traffic fatalities in 1997 has a slightly older average than that of prior years. The median age was 31 in 1996 and 34 in 1997. It appears that the number of traffic fatalities for people in their teens and twenties has dropped sharply between 1996 and 1997. People who are not residents of New Mexico account for only about five percent of alcohol-involved traffic fatalities for these two years.

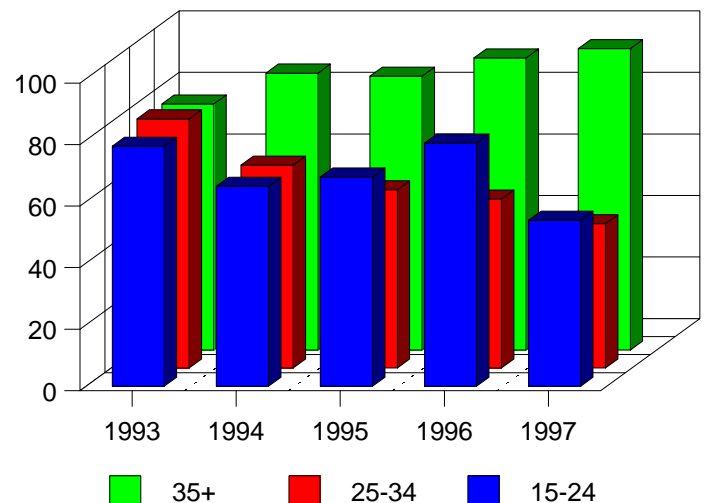
Although the difference between 1996 and 1997 may overstate the amount of change in alcohol-involved traffic fatalities, there has been a substantial decline beginning in the last quarter of 1996. It appears that a large part of the decline may be due to lower numbers of alcohol-involved traffic fatalities among people between the ages of 15 and 34. This is an encouraging sign, as this is the age group where changes must occur if we are to make progress over the long term.

## Alcohol-involved Traffic Fatalities

by Road System



## Alcohol-involved Traffic Fatalities

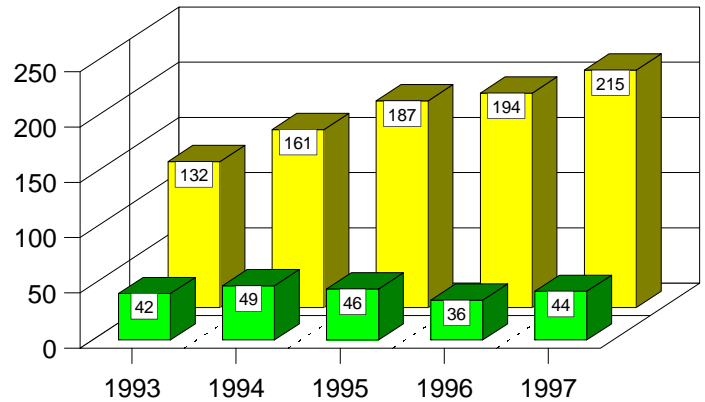


The number of Alcohol-involved traffic fatalities in 1997 was the smallest since reliable records of alcohol involvement have been kept. It will be several years before we know whether this is a return to the downward trend of 1992-1994, or just an aberration.

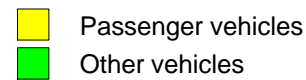
### Non-alcohol Traffic fatalities

Non-alcohol traffic fatalities rose from 230 in 1996 to 259 in 1997, an increase of 13 percent. Most of the increase is in “passenger” vehicles: passenger cars, pickups, vans and sport utilities. The category of “other” vehicles includes heavy trucks, busses, motorcycles, pedestrians and bicyclists. There is a clear step up in passenger vehicle occupant traffic fatalities between 1993 and 1994. Between 1990 and 1992 the number of such traffic fatalities averaged 138.

### Non-alcohol Traffic Fatalities



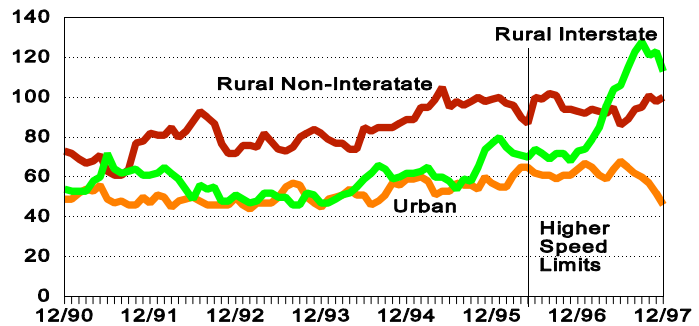
Traffic fatalities on rural non-Interstate highways increased during 1994 and 1995, but appear to have leveled off. They are relatively level on the rural Interstate through 1996 and then more than double in 1997. Urban non-alcohol traffic fatalities increase very slowly over the period. Overall non-alcohol traffic fatalities increased by 29 between 1996 and 1997. Non-alcohol traffic fatalities in passenger vehicles on the rural Interstate increased by 40 over the same period.



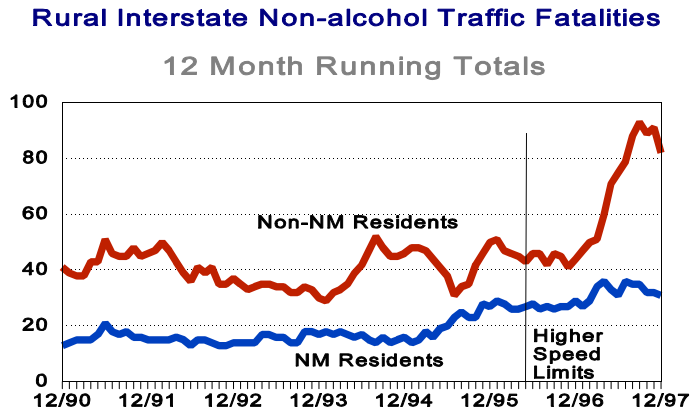
Clearly there is a problem on the rural Interstate in 1997. The most likely cause for a large increase in vehicle occupant traffic fatalities would be higher speeds, but we would expect to see an effect of the 75 mph speed limit in 1996, rather than 1997. This suggests that there are other factors at work, such as changes in travel patterns or travel volume. Volume on the rural Interstate increased minimally between 1995 and 1996. I suspect that the drought in this end of the world and the attendant publicity cut into travel and tourism in New Mexico in the spring and summer of 1996. This may explain the lack of an effect in 1996. Taxable gross receipts in lodging, restaurants and skiing increased only one percent from 1995 to 1996. The increase from 1996 to 1997 is almost five percent. Non-alcohol traffic fatalities on the rural Interstate in 1997 were highest during May through September, suggesting that the summer travel season may have had an effect.

### Non-alcohol Traffic Fatalities by System

#### 12 Month Running Totals



Non-alcohol traffic fatalities among New Mexico residents have increased slowly over the period, with a 12 percent increase between 1996 and 1997. Among non-New Mexico residents, non-alcohol traffic fatalities saw a 49 percent increase between 1996 and 1997. The increase in non-alcohol traffic fatalities in passenger vehicles on the rural Interstate was nearly all accounted for (97%) by an increase in non-resident traffic fatalities.



Interestingly, both of the peaks in non-alcohol traffic fatalities on the rural interstate are driven by traffic fatalities among non-New Mexico residents. Discretionary travel, such as vacations, is the type of travel that is most sensitive to changing conditions. The very small growth in total travel on the Interstate in 1996 suggests a large drop in discretionary travel, which may have limited the effects of the higher speeds.

Of the 71 traffic fatalities among non-NM residents in passenger vehicles on the rural interstate in 1997, 60 (85%) were on the East-West routes (I-10 and I-40). New Mexico is a “bridge state” in that our highways carry a substantial amount of traffic that is simply crossing New Mexico from an origin in another state to a destination in yet another. This is especially true of the East-West routes.

Of those 71 traffic fatalities, 42 (59%) were in sport-utility vehicles and vans. We have had a number of overturning crashes on the rural Interstate that involved vans this summer which drew a fair amount of media attention. In several cases, four or more people were ejected, resulting in multiple traffic fatalities. Had people been using their seat belts, the number of traffic fatalities would have been much smaller.

### **Rates of non-alcohol traffic fatalities**

Raw fatality counts can be misleading, since they do not take changes in travel volume into account. Since the volume data cannot be easily disaggregated by month or type of vehicle, I have projected volume statistics for 1997. The general pattern of crash rates changes only slightly in response to changes in the projections. No matter how the projection is done, the rate of non-alcohol traffic fatalities on the rural Interstate increases sharply from 1996 to 1997, and the rate of non-alcohol traffic fatalities in urban areas decreases.

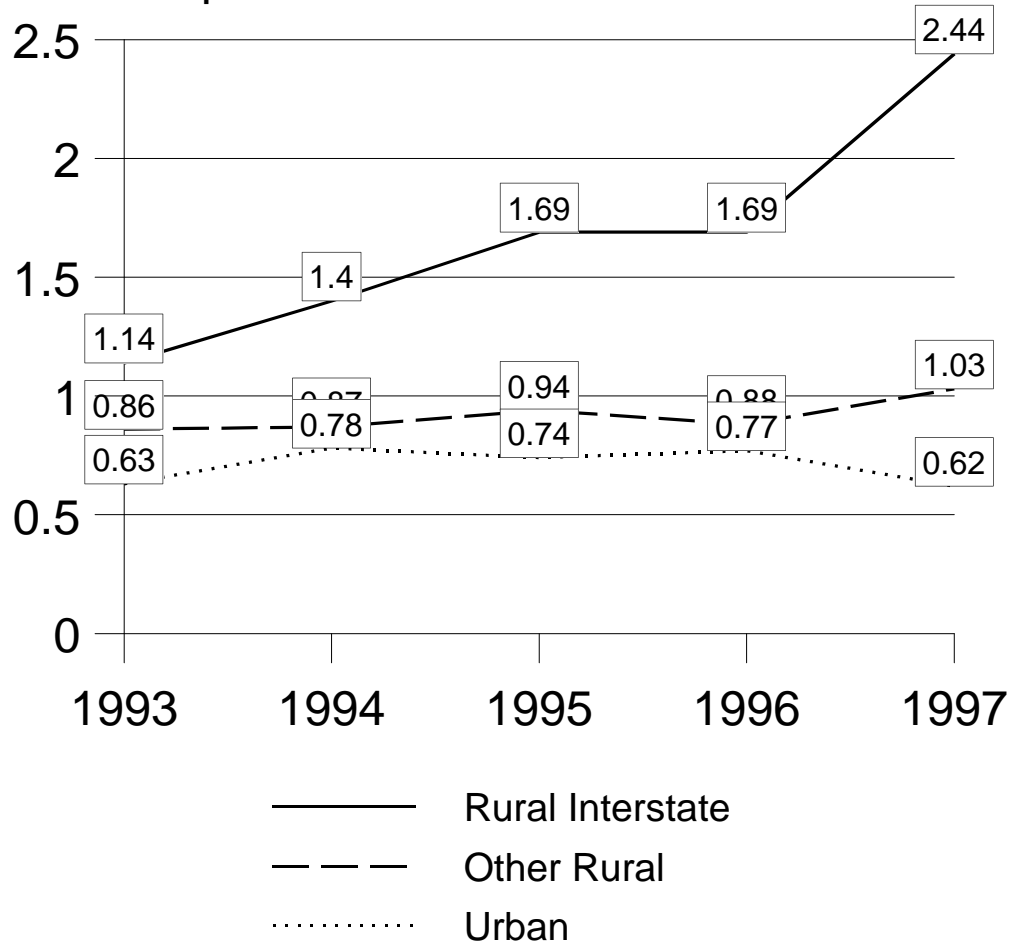
Between 1996 and 1997, non-alcohol traffic fatalities on the rural Interstate increased by 58 percent, and the rate of those traffic fatalities per 100 million vehicle miles increased by 44 percent. The projected volume for the rural Interstate for 1997 assumes a large increase in volume in 1997. If the volume increase is smaller than projected, the increase in the rate will be

larger than that shown here.

### Conclusions

The increase in non-alcohol traffic fatalities in 1997 can be almost entirely attributed to an increase in non-alcohol traffic fatalities on rural Interstate highways among non-New Mexico residents in passenger vehicles. The increase in traffic fatalities is concentrated on the East-West routes, and in “tall” vehicles (vans and sport/utilities). The press has reported on a number of very severe overturning crashes in these vehicles this summer. Traffic fatalities among vehicle occupants and traffic fatalities in overturning crashes both suggest speed as a factor in the crashes.

## Non-alcohol Traffic Fatality Rates per 100 Million Vehicle Miles



The higher speeds on the rural Interstate are the most obvious explanation for this phenomenon. It is possible that the increase from 1994 through 1996 represents the increased speeds among New Mexico drivers speeding up in response to the news that the speed limit would increase. The effect on out-of-state drivers may have been delayed as noted previously. The increase between 1996 and 1997 suggests an influx of out-of-state residents driving faster than they should. It is also possible that fatigue is a factor, with people trying to go too far in one day.

If travelers on the rural Interstate could be induced to slow down and to wear their seat belts even in the back seat, the number of traffic fatalities could be reduced. The fact that many of the people who need to hear this message do not live in New Mexico complicates the problem. I suspect that this is a regional and perhaps national problem. New Mexico is not the only state with higher speed limits and a large volume of out-of-state travelers.

The amount of travel in New Mexico by out-of-state residents depends on many factors, including the state of the local and national economies, the price of gasoline, the price of airline tickets, the weather, and vacation trends. It is likely to fluctuate greatly from year to year, and the

fatality rate on the rural Interstate may fluctuate with it. From the past history, it appears that the largest numbers of traffic fatalities of out-of-state residents will be in the summer and fall.

It is possible that the increase in traffic fatalities on the rural Interstate in 1997 is an isolated occurrence, and that the traffic fatality rate for 1998 and subsequent years will be closer to the averages of prior years. The more likely possibility is that rates in subsequent years will be lower than the rate in 1997, but still substantially higher than those of prior years. Efforts to bring those rates down should begin now in preparation for the summer travel season.