Aggressive Driving: Are You At Risk?

Executive Summary

While aggressive driving has become a hot topic of conversation among both police officers and the public,little is known about the phenomenon. Most reports on aggressive driving have been simple opinion surveys or psychological studies that have focused on the possible increase in aggressive driving, or driver frustration and anger. To fully understand the phenomenon, it is also important to understand where aggressive driving is a serious problem and why.

This study is the first to compare aggressive driving death rates by metropolitan area and state, and to look for factors in the community that might be influencing those deaths. STPPs analysis of federal data revealed strikingly different death rates in different places. We also found some surprising relationships between these fatality rates and other travel factors, such as congestion levels and the use of other transportation modes.

Aggressive Driving and Road Rage

While "road rage" is a popular term for crashes and deaths due to aggressive driving, it also implies those rare sensational incidents when drivers murder each other, often with guns. This report does not include such road rage incidents. It focuses on deadly aggressive driving: that is, fatal traffic accidents in which aggressive driving behaviors were a factor in the crash. The National Highway Traffic Safety Administration (NHTSA) has used the following factors to identify crashes involving aggressive driving: speeding, tailgating, failing to yield, weaving in and out of traffic, passing on the right, making improper and unsafe lane changes, and running stop signs and red lights. STPP narrowed that definition, excluding aggressive driving crashes in which drugs or alcohol were a factor, and including only very excessive speeding, above 80 mph. Using these parameters, we found that aggressive driving is a factor in about 56% of all fatal crashes.

Where You Live Matters

Our results show that aggressive driving deaths are much higher in places with uncontrolled sprawl development, where the car is the only way to get around.

Using the most recent federal data available (1996), STPP ranked metro areas with a million residents or more. We found that the large metropolitan area with the highest fatality rate due to aggressive driving crashes was Riverside-San Bernardino, California, with a rate of more than 13 deaths per 100,000 residents. It was followed by Tampa-St. Petersburg, Phoenix, Orlando, Miami, Las Vegas, Ft. Lauderdale, Dallas-Fort Worth, Kansas City, and San Antonio. Most of these regions are marked by development that discourages walking and biking, and weak transit systems that struggle to serve the sprawling metro area. People who live in these areas often have no choice but to drive everywhere they need to go.

The places with the least aggressive driving tend to be places where the car isnt the only way to get things done. The majority of the metropolitan areas with lower aggressive driving deaths are older and have more neighborhoods with grid street patterns, sidewalks, and more developed transit systems. The ten large metro areas with the lowest aggressive driving death rates include Boston, with two deaths per 100,000 people due to aggressive driving, followed by New York, Minneapolis, Pittsburgh, Norfolk-Virginia Beach, Cleveland, Milwaukee, Cincinnati, New Orleans, and Seattle. When people in these urban areas go out to lunch, run to the drugstore or go to the office, more of them have the choice to leave their cars behind and walk, bike, take the bus or ride the train.

We also looked at aggressive driving by state and found similar patterns. States where more people walk, bicycle, or use the bus or train tend to have much lower aggressive driving fatality rates. States with lower transit use and more miles of highway per person had much higher aggressive driving death rates. The ten states with the highest aggressive driving death rates are: South Carolina, Wyoming, Alabama, Kansas, Oklahoma, New Mexico, North Carolina, Arkansas, Idaho and Florida.

Large Metro Areas with the Highest Aggressive Driving Death Rates

Rank	State	Deaths per 100,000 People
1	South Carolina	15.1
2	Wyoming	13.9
3	Alabama	13.7
4	Kansas	13.7
5	Oklahoma	13.6
6	New Mexico	12.9
7	North Carolina	12.4
8	Arkansas	12.4
9	Idaho	11.9
10	Florida	11.7

Our observations are supported by a number of statistically significant relationships we found between the aggressive driving death rates and a host of other factors in the travel environment, revealing a pattern that points to the character of a community as a significant factor in aggressive driving deaths. Places with low aggressive driving death rates were more likely to have high transit use, many people who walked or biked to work, and fewer miles of highway per resident. Metro areas with these attributes tend to be more compact communities with connecting neighborhood streets and local businesses that are easier to serve with transit, more convenient for residents, and safer for automobile users because they call for lower travel speeds.

Places with high aggressive driving death rates were statistically more likely to have low transit use, few people who walked or biked to work, and more miles of highway per resident. These metro areas are typically marked by many sprawling subdivisions and office parks that can only be reached by high-speed arterials, which are more dangerous for drivers as well as more frustrating for residents. In our statistical sampling, residents of metro areas with low transit use were 61 percent more likely to die in an aggressive driving crash than people who live in areas with high transit use. Streets in these communities are often designed solely for speed, and discourage walking or bicycling. For most residents, the bus or train runs too infrequently or is too far away to be convenient. These residents may be virtually "trapped behind the wheel."

States with the Highest Aggressive Driving Death Rates

Rank	State	Deaths per 100,000 People
1	South Carolina	15.1
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The relationships we found were not simply due to having fewer commuters on the road. For example, in Boston, the major metro area with the lowest death rate from aggressive driving, people drive 12 percent less than in the average metro area, yet aggressive driving fatalities are 66 percent below the average for all cities. More transportation choices and better community design appear to be making the roads safer for all users of the transportation system.

While a common belief is that increased road congestion is to blame for aggressive driving, we found that metropolitan areas with high congestion levels were no more likely to have high aggressive driving death rates than areas with less congestion. In fact, congested areas had a slightly lower aggressive driving death rate. This probably can be partially explained by the lower travel speeds in congested areas, which would make aggressive driving crashes less deadly.

Communities with more miles of highway per resident and high amounts of driving per person have a higher rate of aggressive driving deaths. In other words, greater dependency on automobiles to accomplish every chore in daily life increases exposure to aggressive driving. Residents in the states with the highest number of highway miles per person were 65 percent more likely to die in an aggressive driving crash than people in the states with the fewest miles of highway per person.

How Sprawl Affects Aggressive Driving

Driving has become a part of almost every activity for many Americans. With housing subdivisions isolated from shops and schools, many people must get in the car even for short, simple errands. Working in an office park usually means driving is the only practical commute, and lunch may necessitate yet another trip in the car. Strip shopping centers mean drivers may get in and out of their cars many times on a single trip, each time searching for parking, and often relying on cooperation from other motorists. Under these conditions, driving becomes just another chore to be completed as quickly as possible. People get frustrated when they have to spend so much time in the car, and that frustration can come out as aggressive driving.

Much of the advice on avoiding aggressive driving is simply about dealing with this anger and frustration. With techniques from Zen meditation to self-analysis, many writers advise drivers to calm down and take a deep breath. STPPs analysis, and the research of many psychologists, indicates another solution to all that frustration: take some time out from behind the wheel.

Numerous studies have documented the stress inherent in driving, especially in sprawling urban environments. One study examined stress levels of 600 nurses and found that those commuting by car exhibited much higher levels of stress than those traveling by transit when commute times were equal. If the ultimate aim is to reduce stress, then taking the train might do more good than all the anger management classes in the world. Many Americans already recognize this: in a nationwide survey of transit users, 59 percent said they take the bus or train in order to avoid stress.

The way weve built our communities means that for many people, driving is the only real option. Buses cant adequately serve sprawling subdivisions; and distances are too far to walk or bicycle. Twenty-nine percent of Americans live more than a mile from a bus or train stop or dont have access to transit at all. Our study shows that the sprawling environment and the lack of choice has an impact on aggressive driving death rates. While enforcement of traffic laws is important to curbing aggressive driving, communities should broaden their efforts to look for ways to give residents an alternative to driving, including improved transit service, more sidewalks, and neighborhoods designed so that shops and services are convenient and close to both home and transit.

Recommendations

We recommend the following:

Provide more travel options. Cities and states should increase bus and/or train service and install additional bicycle lanes and sidewalks. Increasing opportunities to take transit, bike, or walk will give people an opportunity to avoid frustrating driving situations, and to avoid aggressive drivers.

Use new federal funds wisely. Use the flexibility of the new federal transportation law to increase travel options. The new federal transportation law, TEA-21, gives states the opportunity to use transportation money to strengthen these other modes of travel. A majority of the federal money coming to the statesmore than 90 percentcan be used on projects other than road building.

Build communities that are more convenient. Communities can be planned to reduce the need for automobile travel. Neighborhoods can be built with stores, office space, and other services that are convenient and close to home. Being able to stop at the store on the walk home from the transit stop can decrease the need to drive and the frustration of running multiple errands. TEA-21s Transportation and Community and System Preservation Pilot Program (TCSP) of TEA-21 provides funds for communities to begin looking at how to reduce the need for travel by building communities that are more convenient.

Design roads to reduce speed. Work with engineers and city planners to adopt new road design standards that help reduce vehicle speed, which is a major factor in aggressive driving deaths.

Offer Commuter Choice programs at work. Employers can encourage their employees to use other travel modes through the new commuter choice benefit program. This program allows employers to offer employees the choice of "cashing in" their free parking space for transit passes, vanpools, or cash.

Enforce driving laws. Motorists should be made aware that driving is an activity that requires cooperation and patience, and should pay the consequences for breaking the law.

Take a break from driving. Communities should develop public education campaigns that encourage people to take a break from driving. Campaigns could ask people to take public transit, walk, bike or let someone else drive to work with them one day a week.

Adopt a Livability Agenda. Many of the ideas listed above are addressed by Vice President Al Gores recently announced Livability Agenda. Congress should adopt the budget requests associated with the Livability Agenda, which will provide additional funding for TCSP, CMAQ and programs to increase transit.