



**National Surface transportation Policy and Revenue Study Commission
Field Hearing: Los Angeles, Calif.
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Written Testimony
Peter Speer, President
The American Traffic Safety Services Association**

Madam Secretary and members of the Commission – thank you for holding this hearing. My name is Peter Speer. I am the President of the American Traffic Safety Services Association (ATSSA) and I am here today to talk about roadway safety programs. ATSSA members manufacture and install roadway safety devices and features including signs, pavement markings, guardrail, crash cushions, and just about everything orange that you see in a work zone. About 700 of our members are from public agencies. We deal with intelligent transportation systems and safety and public awareness issues. In short, we are involved in all aspects of the infrastructure side of roadway safety. ATSSA's core purpose is to *"Advance Roadway Safety."*

We propose that a Toward Zero Fatalities vision be the focus of the 2009 reauthorization of SAFETEA-LU. Federal, state, and local governments must unite with private industry towards a single overarching goal – *To annually reduce fatalities until there are no deaths on America's roadways.*

The concept of envisioning zero fatalities was first adopted in Sweden in 1997 as *"Vision Zero,"* and has since been adopted in several other countries¹. Indeed, several state Strategic Highway Safety Plans – created as a result of SAFETEA-LU legislation – have identified zero fatalities as their core objective². A core objective such as this allows roadway safety infrastructure, driver behavior, and vehicle safety programs to blend together, in a complimentary manner, in order to achieve the same shared goal – to save lives on America's roadways.

Similar to *Vision Zero*, *Toward Zero Fatalities* brings multiple agencies and organizations together to create a "toolbox" to address roadway safety issues using the concept of the "4 E's" (Education, Enforcement, Engineering, and Emergency Medical Services). Given the broad experience and expertise of ATSSA members, as well as a substantial body of research, we believe that thousands of lives can be saved through expanded educational opportunities for making our roadways safer.

¹ *Vision Zero - An Ethical Approach to Safety and Mobility*, Claes Tingvall and Narelle Haworth Monash University Accident Research Centre, presented to the 6th ITE International Conference Road Safety and Traffic Enforcement: Beyond 2000, Melbourne, Sept. 6-7, 1999, <http://www.monash.edu.au/muarc/reports/papers/visionzero.html>

² See Utah's Strategic Highway Safety Plan, located at http://www.atssa.com/galleries/default-file/Utah_SHSP.pdf



Sweden's *Vision Zero* model explicitly states that the responsibility for roadway safety is shared by the designers/owners of the system and the road users. In the *Vision Zero* model, there is a substantial focus on the roadway itself, as well as on the driver. While the behavior of many drivers may be modified, it would be unlikely that the behavior of all drivers can be altered. In order to achieve a reachable goal in saving lives, thereby beginning to move in the direction of Toward Zero Fatalities, there is a need to *“invest to improve the inherent safety of the system, with a more or less given mobility. These investments will be mainly directed towards the infrastructure.”*³

Driving on America's roadways is an inescapable part of life. In 2005, Americans traveled almost three billion vehicle miles. People must use the roads to get to school, to work, or to simply run errands. With that in mind, it is imperative that we make our roadways as safe as possible. Unfortunately, in 2005, 43,443 people were killed in roadway crashes.

Madam Secretary, I have heard you describe roadway deaths in terms of losing an entire city in Arizona in a year. Since we are in California, imagine if we had lost the entire population of Palm Springs last year. Automobile deaths continue to be the leading cause of death for children, for teenagers, and all people from ages three to 33.

Accidents on our nation's roadways are many times avoidable. People speed, talk on their cellular phones, eat, and even read while driving. Poor judgment however, should not be punishable by death. Efforts to modify driver behavior and improve the structural safety of motor vehicles are at an all time high. Seatbelt usage continues to grow as more and more states enact primary seatbelt laws. Alcohol-related traffic fatalities continue to fall as states have become more aggressive about stopping drunk drivers.

While these efforts are commendable and should continue, more can still be done. By increasing efforts to make the roadways as forgiving as possible, we can collectively limit the damaging effects bad behaviors can produce. The 43,443 deaths on our nation's roads in one year are too much. It is the equivalent of 82 fully occupied 747 passenger planes crashing in one year, and in California alone – 4,329 people died in roadway crashes in 2005.

According to NHTSA, the national economic cost in terms of lost time, wages and medical expense is a staggering \$230.6 billion a year. That is an average of \$820 a year for every person in the United States.

³ Claes Tingvall, Op. cit. P4



When we talk about roadway fatalities, we use a lot of numbers and statistics. In doing so, we often times lose the human side of things.

Every one of the 43,443 people killed in roadway crashes in 2005 was a father or mother, or brother or sister, or son, daughter or grandparent. I would like to take a few minutes to relate some real stories.

Dustin and Courtney Muse were killed Dec. 6, 2006 on their way to visit their father. Dustin, 16, was driving his father's Jeep Wrangler south on Route 15 in Leesburg, Va. when the vehicle veered off the road. Courtney, 13, was in the front passenger seat. Both were wearing seatbelts. Drugs or alcohol were not a factor, and police said speed was not a factor. After running off the road, their car struck and came to rest at the base of a large tree in the woods off the side of the road.

As a direct result of this crash, a 700-foot guardrail was installed at the site to prevent further fatalities. The Va.-DOT is also planning other safety upgrades for Route 15. It is a shame that sometimes it takes the loss of life before we make our roadways safer.

The second story I want to tell you involves a former ATSSA member and my friend, Chuck Bailey. Chuck died when a large object in the road was projected into his vehicle after being struck by a truck. After the impact, Chuck's car crossed the median and struck another vehicle head-on. Both Chuck and the driver of the other car were killed. This accident is so tragic – not simply because a good friend was killed – but because Chuck's car crossed the median and killed an innocent driver. Had a low-cost cable barrier been installed in the median, Chuck's car would have been prevented from crossing into oncoming traffic.

How do we prevent tragedies like these from occurring in the future?

In 2002, ATSSA developed a Roadway Safety Program for the reauthorization of T-21. We presented this program to then U.S.-DOT Secretary Norman Mineta.

As we developed ATSSA's Roadway Safety Plan, we focused on areas where people were dying, like run-off-the-road accidents, intersections, and pedestrian safety. Many of the areas ATSSA used in it's Roadway Safety Plan were included as part of SAFETEA-LU's Highway Safety Improvement Program, and many states have included these areas into their own Strategic Highway Safety Plans.



ATSSA believes that the best way to improve safety in these areas is to take advantage of low cost road safety solutions.

To help states maximize their limited resources, ATSSA commissioned the Texas Transportation Institute to develop a series of case studies with proven, lifesaving solutions. ATSSA then published these 16 studies in a booklet titled, "*Low Cost Local Road Safety Solutions*." To date, ATSSA has distributed over 15,000 copies free of charge.

Since this hearing is taking place in California, let's look at Mendocino County.

That county introduced a sign and pavement marking installation program that greatly reduced crashes and fatalities. The county calculated its return on that investment at an astounding (ROI) 159-to-One.

In other examples – rumble strips/stripes placed on the shoulder or edge line are used to alert drivers that they are leaving the travel lane. On freeways, these low cost safety solutions reduced run-off-road crashes between 15 and 80%. The Miss.-DOT saw a 25% reduction in run-off-road crashes after they installed edge line rumble stripes on two lane roadways.

Horizontal signing consists of symbols or words on the pavement directly in the driver's line-of-sight. In a study by the Texas Transportation Institute, researchers applied a curve arrow followed by the words "50 MPH" before a curve on an urban four lane divided highway. Prior-to the installation, the average speed at the beginning of the horizontal curve was 66 MPH. After installation of the horizontal signing, the speed fell to 59 MPH.

Converging Chevron Pavement Markings can also be used to reduce speed. In 1999, the Wis.-DOT used this low cost solution on one of the Interstate 94 exit ramps. Twenty months after the installation, the 85th percentile speed immediately downstream of the converging chevron patten dropped 24%. The number of crashes on the ramp was also reduced by 43%.

Longitudinal channelizers are shown to reduce gate violations at highway-railroad grade crossings by an average of 75%. North Carolina, for example, saw a 77% reduction in gate violations when they installed longitudinal channelizers at railroad grade crossings between the cities of Raleigh and Charlotte.



While all of these solutions are proven to work, they are all but useless unless we know where to install them.

According to SAFETEA-LU, states must develop Strategic Highway Safety Plans (SHSP), or they will lose federal dollars for transportation. As part of their SHSPs, states must submit a *Five Percent Report* to the Secretary of Transportation. This report identifies the five percent most dangerous roads within a state, however, it is up to each state to decide how to identify the most dangerous roads.

The AAA Foundation for Traffic Safety has a program that shows great promise for helping states identify key locations at which they can improve roadway safety. This program, called the U.S. Road Assessment Program (USRAP), provides a new approach to organizing highway safety information to help highway agencies more effectively manage road safety.⁴ USRAP has two main objectives:

- Reduce death and serious injury on U.S. roads through a program of systematic assessments of risk that identifies major safety shortcomings, which can be addressed by practical road improvement measures; and
- Ensure that assessment of risk lies at the heart of strategic decisions on route improvements, crash protection, and standards of route management.⁵

The primary tool for the USRAP is the “Risk Map.” These maps illustrate the safety performance of the road system by measuring and mapping where people are killed and seriously injured in crashes.⁶ In this way, transportation agencies can identify roadways where there are opportunities to improve safety, or where drivers should exercise more care in driving.⁷

⁴ AAA Foundation for Traffic Safety. Rating U.S. Roads for Safety.2006. Page 3

⁵ Ibid. Page 2

⁶ Ibid. Page 3

⁷ Ibid. Page 3



Studies confirm that older drivers are driving more, and to a later age. Over the next two decades, the population of older drivers – those motorists over 65 years of age – will increase dramatically. This age group is highly at risk, with injuries and fatalities exceeding rates for the general motoring public.

In 2005, 6,512 seniors in this group were killed in automobile accidents. An even greater number were injured (191,000 in 2005) in automobile accidents. These are significant numbers when the longer physical recovery times for this age group is considered. We must take steps to address this emerging issue.

California is one state taking steps to address this issue by using low cost solutions. California has established a program to increase the size of road signs, making it easier for older drivers to read them. California published a new MUTCD in September 2006 recommending that on multilane roadways, larger signs “*should*” be used – 36” X 36” for Do Not Enter signs, and 54” X 18” for Wrong Way signs.

So where do we go from here?

ATSSA believes that Toward Zero Fatalities should be a national objective. We also suggest that 10% of transportation funding should be used for saving lives. Finally, we recommend that the following improvements be made to the Highway Safety Improvement Program in the next reauthorization:

1. Authorizing legislation should be clarified to indicate that “systemic” roadway improvements might be made in lieu of focusing on small but dangerous segments.
2. States should be provided with an incentive to promote low-cost improvements, thereby increasing the return on investment in terms of lives saved.
3. Greater integration of safety planning efforts and federal-aid programs should be promoted. This might be accomplished in part by requiring that funding sources for countermeasures be included in state Strategic Highway Safety Plans. As an example, a standard to upgrade signs to minimum levels of retroreflectivity, with breakaway signposts, might be established for all Interstate Maintenance programs.
4. There should be a greater focus on older drivers and on high-risk rural roads, with specific funding targeted or increased in these areas.
5. States should be encouraged to use the AAA Foundation’s USRAP program.



6. States should be encouraged to use Roadway Safety Audits as one step in the process to plan countermeasures in their Strategic Highway Safety Plans.

Madam Secretary and Commissioners – thank you for the opportunity to speak today.

Peter Speer
President, ATSSA