

# PROGRESS REPORT

## FOUNDATION SETS RESEARCH PRIORITIES FOR 2000

At their annual meeting in February, the AAA Foundation for Traffic Safety's Research and Development Committee chose four new projects for funding:

### Identifying Unsafe Actions that Lead to Car-Truck Crashes.

There are nearly 400,000 crashes involving large trucks each year, resulting in over 5,000 fatalities and many more injuries. This project will use a retrospective design to analyze truck crash data in four national databases. Researchers at the University of Michigan Transportation Research Institute will look at data from 1994 to 1997 to identify factors that make crashes between cars and trucks different from crashes between two cars. The research will also develop some suggested safe practices that would help drivers of both kinds of vehicles avoid crashes.

### What Can Be Done About Drunk Drivers?

The 1980s saw major reductions in the carnage caused by drunk driving. The percentage of drivers in fatal crashes who had a blood alcohol content of .10 or greater declined from 47 in 1980 to 29 in 1996. But this percentage has remained flat at 28% in 1997 and 1998 and efforts to combat this scourge seem to be flagging. Are there effective but underutilized approaches to the problem that need to be more widely implemented? The Foundation will develop a Request for Proposals for research to assess state-of-the-art practices designed to reduce drunk driving in the United States and Canada.

### Mandatory Driver Re-Testing Based on Age Versus Performance.

Older Americans form the fastest-growing segment of the population, and as this age group grows, the issue of mandatory re-testing of older drivers is heating up. At least 12 states have passed tougher licensing standards for drivers 65 or older. Safety experts vigorously debate both the safety-effectiveness and the cost-effectiveness

of such requirements. The majority of older drivers are not impaired and re-testing unimpaired drivers is a waste of time and money. Research will compare two states with different policies on older driver testing: Illinois, which has a mandatory driving test for drivers 75 and over, and Missouri, which in 1999 required re-testing based only on reported performance. The researcher for this investigation will be selected via a Request for Proposals.

### Informal Transportation Programs for Seniors: Alternatives and Models.

Once seniors stop driving, how do they get around? This project will identify models of informal alternative senior transportation, and will attempt to expand transportation alternatives for seniors. With informal services, little information is available about what works and what doesn't. Often this is because providers are people-focused and service-oriented, and thus make little or no effort to become known outside their service area. Research for this project will be done jointly by The AAA Foundation for Traffic Safety and the Beverly Foundation. The project is a natural extension of an earlier collaboration that included U.S. DOT and conducted 22 focus groups on mobility for older people.



*Paul Petrillo, Chairman of the Board of Trustees of the AAA Foundation, left, discusses research priorities with Robert Darbelnet, President and CEO of AAA.*

## HIGHER SPEED LIMITS DON'T RAISE CRASHES, STUDY SHOWS

In 1995 and 1996, after revocation of the national maximum speed limit (NMSL), California raised the limits on approximately 6,000 miles of roads. Increased speed limits were rolled out in stages, the first change coming in December 1995 and the last in April 1996. Speed limits were

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***"There is no evidence that the increased speed limits in California compromised the general level of traffic safety in the state."***

### **HIGHER SPEED LIMITS** (continued)

increased from 55 miles per hour throughout the state to 65 and 70 miles per hour, depending on the type of roadway.

A new study by Dr. Steven A. Bloch of the Automobile Club of Southern California and David J. DeYoung of the California DMV looked at how the increased speed limits affected crash rates per mile driven, focusing on the two-year period after limits began to rise. The study examined crashes on all roads in the state, since drivers might choose a different route because of the new higher speed limit. Study findings showed that the changed speed limits did not negatively affect the fatality rate. Immediately after the 1995 increase, the overall rate of injury crashes (including fatality crashes) increased temporarily, but then declined. There was no change in the rate of fatal or serious injury crashes. After the April 1996 speed limit increase, the rate of fatal crashes declined and the rate of injury crashes appeared to have dropped. Considered together, the report concludes,

"There is no evidence that the increased speed limits in California compromised the general level of traffic safety in the state."

One possible reason for this surprising effect is that actual travel speeds did not change much: The average 85th percentile speed increased by only one or two miles per hour. Drivers apparently were already going faster than the old speed limits and did not exceed the new limits by the same margin. Another possible reason is that the raised speed limits had an effect on the entire highway system, not just on the roads where limits changed. As speed limits rose, it is possible that traffic flowed from more dangerous local roads to larger, divided highways, which are much safer. Police may also have re-allocated their enforcement resources toward catching the most dangerous drivers, rather than focusing their limited resources on monitoring and catching drivers going faster than 55 miles per hour.

Dr. Bloch stresses that the study does NOT show that driving faster is safer than driving at a moderate speed. Faster-moving vehicles are more likely to crash because the driver has less time to brake and a smaller margin of error in an emergency. Faster-speed crashes are also more likely to result in injury or death because fast-moving objects hit with greater force than slow-moving ones.

However, Bloch says the current study does support the idea that the policy of raising speed limits on interstates and other roads where higher limits are appropriate is not necessarily harmful to overall traffic safety in a state. Any revised speed limit must be carefully considered before speeds are raised, Bloch says. The type of roadway, its design characteristics, and possibly the 85th percentile speed need to be taken into consideration to maintain traffic safety.

Several studies after the partial repeal of the NMSL in 1987 also found that increased speed limits do not lead to increased crashes when all roads in a state are taken in to account, not just the ones with increased limits. This study is the first to conclude this since the NMSL was fully rescinded in 1995.

### **3-E PROGRAM PROMOTES SAFETY**

The Idaho Transportation Department's new safety program integrates the "three - E's" of traffic safety into one comprehensive strategy. As the program's motto says, they're "Engineering safer roads, Enforcing traffic laws, and Educating drivers."

"Idaho is a big, sparsely populated state with unique traffic safety issues, including a seat belt use rate of only 59 percent," says Joe Peagler, a grants/contracts officer and 3-E project manager for the Idaho Office of Highway Safety, Idaho Transportation Department. "The 3-E program was the brainchild of Dwight M. Bower, Director of the Idaho Transportation Department, and of

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Jim Ross, our Chief Engineer. The 3-E Program is the sensible blending of engineering, enforcement and education safety measures," he explains.

The solution was to identify the state's safety problems and develop a multi-dimensional strategy to address them. "We identify what the problem is and where, then we get the engineers, law enforcement, and education people together in one room and we hash out what we want to do for a 3E program to reduce or eliminate the problem identified," Peagler says.

The first project of the 3-E initiative involved installing rumble strips on Interstate 15, which runs for 196 miles between Montana and Utah through the eastern part of Idaho. "It's a long, monotonous, straight Interstate," Peagler says. "Drowsiness/sleep deprivation are major contributing factors in single-vehicle crashes." Between 1995 and 1998, this stretch of I-15 had 1,979 crashes, of which 78 percent involved just one vehicle. Those single-vehicle crashes were especially deadly, resulting in 92 percent of all deaths and 83 percent of all serious injuries –most were not using seat belts. The Idaho Office of Highway Safety has concluded that drowsy driving is an underrated traffic hazard that most motorists take far too lightly. The 3-E effort on I-15 will focus on combating inattentive, fatigued and drowsy driver behavior, aggressive driver behavior, and to increase the use of safety restraints.

In the engineering "E" phase, special machines cut rumble strips on both edges of the highway. Rumble strips are an extremely cost effective life saving engineering measure which warns drivers that they are about to drive off the road. "When a driver is leaving the travel lane and crosses either fog line, their tires contact the grooved patterns on the pavement shoulders and produce vibrations and a rumbling sound that alert drivers that they are leaving the road. Statistically, rumble strips have reduced single vehicle run-off-road crashes by as much as 70%," Peagler says. The enforcement "E" was added by paying state troopers overtime to conduct saturation patrols on those stretches of road with rumble strips and through upgrading the state police radio communications on I-15. An education campaign provided the third "E" "We put out a color brochure, stickers, produced an emotional public service announcement and we conducted a huge news conference in Pocatello," Peagler says. "We chose Pocatello because that was the first place we started cutting the rumble strips. It aired all over the state and was in all the newspapers." State police troopers also travel around the state giving presentations to

civic organizations, schools, churches, and businesses. Another valuable education tool is the employment of mobile variable message boards by the state police, which deliver safety messages and warnings to motorists.

The Manager of Idaho's Office of Highway Safety, Jo Ann Moore concludes, "We currently have Idaho Transportation Department Board approval for 3-E projects in 4 highway districts. We have approved funding for 4 projects, with one project underway and three more commencing construction in the early spring of 2000. Future 3-E projects will include the same interagency teamwork and comprehensive solutions, but will be directed at a variety of different safety issues. By working together we can treat all the facets of safety, not just parts of the problem. Augmenting our efforts will ensure we move as efficiently as possible toward a common goal of saving lives. We're excited about these projects and the sensible blending of these three important facets of highway safety. This is highway safety at its best, when we can address driver behavior, roadway and environmental conditions, and vehicle factors as three interacting aspects of collision and injury prevention."



*Rumble strips being milled on I-15 near the Montana Border.*

## **ARIZONA DRIVERS TAKE THE PLEDGE: RED MEANS STOP**

When it comes to running red lights, Arizona is number one. It's also number two. Phoenix, AZ, ranked first in the United States for fatal red-light-running crashes, with a rate of 8.11 per 100,000 population; nearby Mesa came in second with 7.08. (Third place was Memphis, TN, with 5.45, followed by Tucson, AZ with 5.11). That's a good reason to make red-light running a number one safety priority, says Laura Richtenburg, Public Relations Manager for AAA Arizona. "In 1998, approximately 9,000 red-light citations were issued in Phoenix alone; 4,500 people were injured and 25 killed. That's just for one city, not the entire state," Richtenburg says. AAA estimates that these crashes cost \$180 million every year in medical bills, insurance, taxes, and other expenses. "We had the statistics in front of us and felt obligated, as traffic safety

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*Laura Richtenburg, Public Relations Manager for AAA Arizona, left, looks on as Show Your Card and Save Manager Duane Richards collects a signature from Kathy Becker, a club employee.*



*"It really does help them start thinking 'I'd better slow down.'"*

### **RED MEANS STOP** (continued)

advocates, to do something to warn our members and help this problem," she says. So AAA Arizona formed a partnership with the Red Means Stop Coalition in Phoenix to combat this dangerous activity. Rightenburg came up with the idea of having drivers sign a pledge to stop running red lights. "It's better than just handing out brochures. People are more likely to remember something they've signed, and hopefully when they approach an intersection they'll think, 'I'd better stop.'"

The "Red Means Stop" coalition already had a logo, so Rightenburg worked with them to put the image on round, red stickers people could apply to their car windows. Every driver who signs the pledge gets a sticker and a pledge card. "One of our employees in ERS came and said 'Guess what! I saw one on the back of a bus,'" she says. Response has been positive: "People say, 'I signed, but let me go get my husband and bring him back, he's always running red lights.' I challenge these drivers to count for a week the number of people they see brazenly going through red lights. It really does help them start thinking 'I'd better slow down.'" Every AAA Arizona club offers sign-up sheets and stickers and pledge cards, and the program has also been catching on with other local organizations, Rightenburg says. One high school and some post offices have started collecting driver signatures. When the sheets fill up, they're sent back to AAA, which has gathered over 1,000 pledges just in the first few weeks. More sheets are coming in all the time as other groups come on board, Rightenburg says. She hopes to enlist other cities in the effort and is trying to coordinate a

press conference with the mayors of Phoenix, Mesa, and Tucson to publicize the program. She is also negotiating with a local radio station to reward motorists who have the sticker on their vehicles and who are spotted stopping for a red light. Rightenburg envisions a country where "Red Means Stop" stickers are everywhere. "I want to see those stickers out there, on cars all over the US. When you see that round red symbol, you'll know what it means."

### **DRIVER-ZED NOW RUNS ON MAC AND WINDOWS NT**

The Foundation's innovative teen driver risk management program, driver-ZED, is now available in a new version that runs on the Macintosh operating system. The AAA Foundation has been getting requests for years to create a Mac-based release of this popular risk management program, and is pleased to announce that it's finally here. The new Mac version be particularly useful in high schools that participated in the "Apples for Students" programs and that have a large number of Mac machines.

Mac users will need a Power PC Processor of 150 MHz or better, Mac OS 8.6 or higher, 32 MB of RAM and 65 MB of virtual memory. Installing the software will require at least 90 MB of disk space.

Windows NT users should buy the PC version of driver-ZED and download the free NT patch from the Foundatin's web site, <http://www.driverzed.org>.



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