STATEMENT OF
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U.S. SENATE
HEARING ON SAVING LIVES ON OUR NATION'S HIGHWAYS

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Chairman Boxer, Ranking Member Inhofe, and Members of the Committee, thank you for the opportunity to appear before you today to discuss the Federal Highway Administration's (FHWA) role in saving lives on our Nation's highways.

The safety of the traveling public is the United States Department of Transportation's (DOT) most important priority. As you well know, improving highway safety requires a comprehensive, multi-agency and multi-disciplinary effort. Through the combined efforts of the entire highway safety community, our highways are safer than ever before, but with over 42,000 highway fatalities in 2006, much work remains.

FHWA takes seriously its charge to ensure the safety, reliability, and efficiency of America's highways, roads, and bridges. We are committed to continued work with you, the safety community, and our sister agencies, including the National Highway Traffic Safety Administration (NHTSA) and the Federal Motor Carrier Safety Administration (FMCSA), to reduce highway fatalities and injuries.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Public Law 109-59) significantly increased the national policy emphasis on safety and the resources available to reduce traffic fatalities and injuries on all public roads. The Act also introduced new programs and provided greater flexibility to meet the challenges of improving safety. Using the tools SAFETEA-LU provided, and working together, we are making progress and seeing results.

Reducing Highway Fatalities

In 2006, the last year for which we have final data, the number of people who lost their lives on the Nation's roadways fell by 868 deaths from 2005, equating to a fatality rate of 1.41 per 100 million vehicle miles traveled (VMT)—the lowest rate ever recorded. The number of fatalities in 2006 represents the largest drop in total deaths in 15 years.

Passenger car occupant fatalities declined for the fourth year in a row to 30,521, the lowest annual total since 1993. The fatality rate per 100 million VMT for passenger vehicles also reached an all time low of 1.10 in 2006. In addition, the number of people suffering incapacitating injuries as a result of motor vehicle crashes in 2006 was 26 percent lower than in 2000.

At 1.94 fatal crashes per 100 million large truck VMT, in 2006, the large truck fatal crash rate reached its lowest point since the Department began tracking these figures 30 years ago. From 2005 to 2006, large truck fatalities decreased from 5,240 to 4,995, representing a 4.7 percent reduction.

Although final data are not yet available for 2007 and 2008, preliminary State data show promising signs of a further reduction in fatalities in 2007 (compared to 2006) and more significant declines in fatalities in at least 35 States in 2008 (compared to 2007).

Despite the gains we have made in improving highway safety, 42,642 individuals still lost their lives in motor vehicle crashes in 2006. Motorcycle rider fatalities continued their nine-year increase, reaching 4,810 in 2006—an increase of 5 percent over the 2005 number and a 127 percent increase since 1997. Motorcycle rider fatalities now account for 11.3 percent of total motor vehicle fatalities, exceeding the number of pedestrian fatalities for the first time since DOT began collecting fatal motor vehicle crash data in 1975. In 2006, 17,602 people were killed in the U.S. in alcohol-related motor vehicle crashes—about 40 percent of total motor vehicle fatalities. This proportion has remained relatively unchanged since 2000.

In 2005, according to the Centers for Disease Control, once again motor vehicle crashes were the leading cause of death for Americans for every age 2 through 34. And, the associated financial costs are staggering—over $230 billion each year.

These numbers are not acceptable. That is why the DOT considers safety its top priority and remains committed to the goal of reducing highway fatalities to a rate of 1.0 per 100 million VMT by 2011. To most effectively align program and policy actions needed to meet key challenges, the Department has established four fatality sub-measures—passenger vehicles, nonoccupants (e.g., pedestrians and bicyclists), motorcycle riders, and large-truck and bus-related fatalities—which represent the breadth of all highway users. The purpose of this approach is to examine more closely the fatality rates of the various segments of highway users and develop targeted strategies to combat trends within these segments of highway users.

Additionally, data from the NHTSA Fatality Analysis Reporting System (FARS) highlight crash trends and areas where major fatalities are still occurring. We use this information to assist States in maximizing returns from safety investments. Some of the greatest gains in reducing fatality rates in the short term lie with influencing driver behavior. Over 90 percent of crashes are caused by human factors, such as speeding, lack of seat belt use, and alcohol impairment. The DOT has implemented a number of driver behavior programs, including the primary safety belt use law incentive grant program, the alcohol-impaired driving countermeasures program, and others.

FHWA's Role in Highway Safety

Comprehensive Safety Programs and Partnerships

FHWA's Office of Safety is responsible for leading FHWA in the development and delivery of a comprehensive range of programs that will enable the Department to meet its 1.0 safety goal. FHWA actively pursues improved highway safety through a collaborative, multi-faceted approach that addresses the "4Es of safety"—engineering, education, enforcement, and emergency medical services. Using a data-driven approach, we work with other safety agencies at DOT and with our safety partners to develop and deliver technologies, processes, and policies that direct resources to activities that can yield the highest highway safety gains. While FHWA concentrates primarily on infrastructure-oriented solutions, we recognize that highway deaths are often the result of some failure of the driver or vehicle, in addition to the roadway, so we work closely with

both NHTSA and FMCSA on intermodal activities such as the DOT Speed Management Strategic Initiative. We not only work at the national level to provide leadership for highway safety, we work directly with roadway owners and operators at all levels to deliver safety-related programs and funding that yield benefits that include improvements in system conditions and operations. As part of this comprehensive approach, FHWA safety funding is targeted at improving the safety of roadway designs and operations, removing roadway hazards, and advancing high-quality safety data collection and analysis systems in collaboration with others.

FHWA's efforts with our partners to improve data quality are extensive. FHWA takes an active role, in conjunction with our partners at NHTSA and FMCSA, in the USDOT Traffic Records Coordinating Committee, an intermodal team that provides coordinated Federal leadership to maximize the efficiency and effectiveness of integrated roadway, traffic and safety data collection and analysis. FHWA also supports NHTSA in the implementation of the State Traffic Safety Information System Improvement Grant program, authorized under SAFETEA-LU, which provides grants to States to improve their data systems. FHWA has developed, in consultation with FMCSA and NHTSA, a Crash Data Improvement Program that gives States a detailed analysis of their crash data systems, training on how to make improvements, and individualized attention from data systems experts. This program has been piloted in two locations, and we are in the process of expanding it to other locations.

Perhaps one of the most difficult and wide reaching issues related to usable data is the availability of roadway information. Many States have, via their asset management systems, good data on engineering features, but in many cases, these systems cover only State-owned roadways and do not include some safety-critical elements. FHWA is working on the Model Minimum Inventory of Roadway Elements (MMIRE) program to more clearly define a set of standardized elements that will be beneficial in performing analyses to make program and project decisions. In 2006, preliminary MMIRE elements were vetted with traffic records professionals and "cross-walked" with safety analysis tools available or under development. FHWA has initiated a number of activities to move the concept forward, including establishing an executive steering committee, developing outreach materials on MMIRE for State and local partners, and initiating a contract to begin development of the MMIRE. Through these efforts and others, FHWA will continue to emphasize the need for data-driven decision-making.

SAFETEA-LU Implementation

Since the enactment of SAFETEA-LU in 2005, FHWA has worked aggressively to make the authorized funds available, and issue guidance and regulations as necessary to carry out programmatic modifications in SAFETEA-LU.

Highway Safety Improvement Program**.** SAFETEA-LU authorized the Highway Safety Improvement Program (HSIP) as a new core Federal-aid formula program and more than doubled the amount of highway safety funding for the States by authorizing $5.1 billion over 4 years. The HSIP emphasizes a results-based, data-driven, strategic approach to improving highway safety. The program provides States with flexibility to use funds for safety projects on all public roads and publicly-owned pedestrian and bicycle paths, and to focus State efforts on implementation of State Strategic Highway Safety Plans (SHSPs). FHWA assisted States in developing their SHSPs. We helped

States convene the stakeholders necessary to solve highway safety problems and worked to analyze data to identify critical emphasis areas individualized for each State's safety needs. We are happy to report that every State now has an SHSP. We are also pleased to report that 32 States identified data and data system improvements as a priority in their SHSPs and that, in 2007, 40 States used HSIP funds for data improvements. FHWA's emphasis on a collaborative approach to improving safety is especially critical in the HSIP, where each State's SHSP addresses all "4Es" of safety described above. FHWA will continue to assist States with their SHSP implementation and safety planning so that safety funds will be used where they yield the greatest safety improvement.

We have cooperated with the Government Accountability Office (GAO) on its ongoing review of the HSIP and look forward to the issuance of its report on the program.

Safe Routes to Schools. SAFETEA-LU also authorized $612 million for a new Safe Routes to School (SRTS) program to: enable and encourage children, including those with disabilities, to walk and bicycle to school; make walking and bicycling to school safe and more appealing; and facilitate the planning, development, and implementation of projects that will improve safety, and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. Working with States, FHWA moved quickly to implement this new program. Each State has appointed a SRTS coordinator as required by SAFETEA-LU, and States are well underway in awarding grants and implementing projects. We also have fulfilled another SAFETEA-LU program requirement, creating a national clearinghouse for SRTS. The National Center for Safe Routes to School located at the University of North Carolina at Chapel Hill assists communities and States in developing successful SRTS programs and strategies. The National Center offers training, technical assistance, case studies of successful programs, and information on how to start and sustain a SRTS program. The Clearinghouse makes information available on its website at http://www.saferoutesinfo.org. At Congress' direction, we have also established and convened a Federal Advisory Committee that has studied and developed a strategy for advancing SRTS programs nationwide. The report on the Committee's findings will be transmitted to Congress soon.

High Risk Rural Roads. Rural two-lane, two-way road fatality rates are significantly higher than the fatality rates on the Interstate. The fatality rate for rural crashes is more than twice the fatality rate for urban crashes. The High Risk Rural Road portion of the HSIP sets aside $90 million each year to address safety considerations and develop countermeasures to reduce these higher rural road fatalities. On February 29, 2008, Transportation Secretary Mary E. Peters announced a new national strategy that will concentrate resources and technology on reducing deaths on the Nation's rural roads. The *Rural Safety Initiative*, led by DOT Deputy Secretary Thomas J. Barrett, is a comprehensive effort among several agencies within DOT that will help States and communities develop strategies to eliminate the risks drivers face on rural roads. Approximately $287 million in existing and new funding is available to support the *Rural Safety Initiative*. This new initiative highlights available resources and solutions and addresses 5 key goals: safer drivers, better roads, smarter roads, better-trained emergency responders, and improved outreach and partnerships. For example, the Rural Safety Innovation Program, a component of the *Rural Safety Initiative*, is offering $15

million to rural communities across the country to apply and evaluate innovative safety solutions.

Work Zone Safety. SAFETEA-LU included an increased emphasis on work zone safety. Fatalities in highway work zones currently number over 1,000 annually. Four out of 5 of these deaths are motorists. Under the Work Zone Safety Grants program, FHWA has awarded grants to nonprofit and not-for-profit organizations to provide training to prevent and reduce work zone injuries and fatalities. SAFETEA-LU authorized $5 million for each fiscal year of the program, starting in 2006. The grants may be used for construction worker training to prevent injuries and fatalities; development of guidelines to prevent work zone injuries and fatalities; and training for State and local governments, transportation agencies, and other groups implementing these guidelines. SAFETEA-LU also authorized $1 million annually for a national nonprofit foundation to operate the National Work Zone Safety Information Clearinghouse. The Texas Transportation Institute is operating this clearinghouse under contract with the American Road & Transportation Builders Association (ARTBA). The Clearinghouse provides a wide variety of information related to improvement of roadway work zone safety available at http://www.workzonesafety.org/.

In addition, FHWA has been working with the American Association of State Highway and Transportation Officials (AASHTO) to advance and promote accelerated bridge construction technology, which enables bridge systems to be built offsite and then installed, in part or the whole bridge, at the job site over a weekend or overnight. The technology reduces the exposure time in the work zone and significantly reduces traffic disruption.

Bridge Safety Efforts. Highways, by definition, include bridges. The Highway Bridge Program supports State and local efforts to improve conditions, and thus safety, of highway bridges. The expansion of the Highway Bridge Program's scope under SAFETEA-LU is recognition of the importance of preserving bridges that are in better condition, as well as replacing and rehabilitating bridges that have suffered from deterioration. Since its inception, the Highway Bridge Program has been successful in reducing bridge deficiencies. As of December 2007, there were 116,025 bridges out of 599,319 inventoried nationwide that were on the National Highway System (NHS). Of those, 25,780, or 22.2 percent, were considered deficient. That represents a reduction of 4 percent from 1997, when 33,558 out of 128,432, or 26.1 percent, of NHS bridges inventoried were deficient.

Thousands of well-trained and dedicated bridge inspectors in the National Bridge Inspection Program work every day to ensure the safety of the nearly 600,000 existing bridges in the National Bridge Inventory. Through these inspections, critical safety issues are identified and acted upon to protect the traveling public. With an aging infrastructure and limited resources, it is vitally important to continuously monitor the condition of the Nation's bridges and frequently assess the load-carrying capacity of those bridges that are showing signs of deterioration.

Focused Approach to Safety

To reduce the number and rate of fatalities in traffic-related crashes, FHWA launched a performance-based approach to safety several years ago that better focuses our resources where the greatest opportunities to save lives exist. To accelerate

development and delivery of tools and technologies where they will make the biggest impact, we have focused resources on 4 areas where we see the greatest percentage of highway fatalities that are addressable by infrastructure-oriented solutions: roadway departure crashes (58 percent of all highway deaths); intersection-related crashes (21 percent of all highway deaths); pedestrian crashes (11 percent of all highway deaths); and speeding-related crashes (32 percent of all highway deaths). We maintain our focused approach to safety in the 4 critical areas in several ways, including:

- Providing technical assistance and training to States;
- Advancing the use of countermeasures such as shoulder and center-line rumble strips, cable median barriers, roundabouts and other operational improvements;
- Promoting the implementation of USLIMITS, a web-based expert advisory system to help States determine appropriate speed limits;
- Implementing PEDSAFE, an interactive system to diagnose pedestrian-related issues; and
- Supporting Roadway Safety Audits that bring together multi-disciplinary teams to review the safety performance of specific corridors or locations and develop countermeasures.

Safety Research, Technology and Innovation

Developing new technologies and tools through a strong research and development program in highway safety is a key component of FHWA's strategy to reduce highway deaths and injuries. FHWA conducts its own research and collaborates extensively with others who sponsor highway safety research and technology, including States and universities. Numerous safety research and technology projects that contribute to our highway safety objectives are currently under development with a strategic focus on areas with the greatest fatalities, including roadway departure, intersections, pedestrians, and speeding. Examples of our research and technology efforts include:

- Evaluating low cost safety improvements for State and local partners;
- Using advanced crash simulation and analysis to enhance the design of median cable barriers and edge-pavement dropoffs to make roadsides safer;
- Deploying SafetyAnalysis software to assist States in making cost-effective safety investment decisions;
- Working on Human Centered Systems to ensure that driver responses are considered in road design and in the development of new roadside safety technologies;
- Releasing targeted technical briefs on innovative intersection designs, such as the Diverging Diamond interchange, that enhance safety, alleviate congestion and reduce construction costs;
- With the US DOT Intelligent Transportation Systems Joint Program Office (ITS JPO), researching advanced vehicle-highway cooperative systems to avoid collisions at intersections; and
- Issuing an information report on the illumination of Mid-Block Pedestrian Crossings, to improve pedestrian safety.

FHWA is also active, along with others throughout the safety community, in supporting the future Strategic Highway Research Program (SHRP2), established by Congress and managed by the Transportation Research Board (TRB). Along with

NHTSA and FMCSA, we are excited about the potential impacts of an increased understanding of crash causation, including how driver performance is affected by roadway features and conditions. We are providing input to TRB as it studies SHRP2 implementation needs, and we look forward to further collaboration on this topic.

Program Guidance and Implementation

FHWA Division Offices work closely with State and local officials to assure that highly-effective systems, technologies, and processes are utilized when investing Federal dollars in highway safety countermeasures. We develop and disseminate guidance on program expectations and information on "best practices" on a continuing basis. Most recently, we provided information to States on high-priority safety countermeasures, which we encourage all States to consider as part of their regular project development and delivery. In addition, we work closely with national associations representing States, localities, enforcement officials, safety advocates, and others to facilitate sharing of information and tools to maximize the value of all our safety programs.

Conclusion

Highway fatalities are a national tragedy, and FHWA is committed to reducing their numbers. As we approach reauthorization, we look forward to continued work with this Committee, the States, and our partners in the transportation community to find solutions for the safety problems on our highways and develop methods to attain our safety goal.

Thank you for the opportunity to appear before you today. I would be happy to answer questions.