

Speed Management Program Plan

Mission of the United States Department of Transportation:

Serve the United States by ensuring a fast, safe, efficient, accessible, and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people today and into the future.



U.S. Department of Transportation
**National Highway Traffic Safety
Administration**



U.S. Department of Transportation
**Federal Motor Carrier Safety
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SPEED MANAGEMENT PROGRAM PLAN INITIATIVE UPDATE

This document is an update of the *Speed Management Strategic Initiative* (retitled Speed Management Program Plan), originally published in 2005¹ and was developed jointly by the National Highway Traffic Safety Administration, Federal Highway Administration , and Federal Motor Carrier Safety Administration to address speeding as a contributor to highway crashes and fatalities. The strategies contained in this initiative incorporate recommendations of the Transportation Research Board contained in *Special Report 254, Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits* and parallel elements from *Volume 23, National Cooperative Highway Research Program Report 500: A Guide for Reducing Speeding-Related Crashes*.

¹ National Highway Traffic Safety Administration, Federal Highway Administration , & Federal Motor Carrier Safety Administration. (2005, September). *Speed management strategic initiative*. (Report No. DOT HS 809 924). Washington, DC: Authors.

EXECUTIVE SUMMARY

GOAL

The goal of this Speed Management Program Plan is to improve public health and safety by reducing speeding-related fatalities and injuries.

OUTCOMES

1. Reduction in speeding-related fatalities
2. Reduction in speeding-related injuries
3. Improved safety experience for all road users, including motorists, pedestrians, and bicyclists²

CHALLENGES AND STRATEGIES

The United States Department of Transportation's highest priority is the improvement of safety throughout the transportation sector. To this end, DOT employees are committed to strengthen the safety culture through our work, and to inspire and support our partners, our stakeholders, and the public in our efforts to reduce transportation-related fatalities and injuries and promote a safe transportation system for all users.

Much progress has been made in traffic safety. Over the last 40 years, there have been significant reductions in fatalities and injuries related to impaired driving and occupant protection. Recent efforts are raising public awareness on distracted driving and are making a positive difference for that traffic safety problem. However, improvements on speeding-related traffic crashes continue to pose many difficult challenges as the percentage of speeding-related fatal crashes has remained around 32% for more than a decade.

DOT recognizes the ongoing challenges that States and communities face in trying to reduce speeding-related fatalities and injuries. Most people admit they speed at least some of the time when they are driving, but they often do not believe they are driving unsafely when they speed. At the same time, most people feel threatened by the speeding of others and want something to be done to reduce the speeding of others and improve driving safety.

² Throughout the Speed Management Program Plan "bicyclist" refers to all cyclists including riders of two-wheel non-motorized vehicles, tricycles, and unicycles powered solely by pedals.

The relationship between drivers and speeding is complicated and often paradoxical in nature. As such, it requires nothing short of a major cultural shift with regard to the dangers and the acceptability of speeding by the public for significant reductions in speeding-related crashes to occur.

Forty years ago, the public tolerated impaired driving and didn't recognize the importance of seat belts in traffic safety. Through the concerted efforts of ordinary people and organizations such as Mothers Against Drunk Driving (MADD), assisted by DOT and other stakeholders, the culture changed. Impaired driving is no longer tolerated by the public and today, the vast majority of drivers use seat belts and child safety seats. Similar joint efforts are now changing the public's acceptance of distracted driving. It is now time to address the issue of speeding and work to increase the public's understanding of the dangers of speeding and the importance of complying with appropriately set posted speed limits.

KEY ELEMENTS IN THIS PLAN

Changing public attitudes regarding speeding and speed management will require a comprehensive and concerted effort, involving a wide variety of strategies. This plan identifies six primary focus areas:

- A. Data and Data-Driven Approaches,
- B. Research and Evaluation,
- C. Technology,
- D. Enforcement and Adjudication,
- E. Engineering, and
- F. Education and Communications.

Specific goals, objectives, and action items are identified for each focus area.

The appendix also identifies priority areas that warrant immediate, more focused attention. These priority areas have the potential to create focal points for efforts intended to address the dangers of speeding, to create synergy involving the various partners and stakeholders who are interested in this issue, and to bring about meaningful change. It is expected that these priorities may evolve over time and they should be revisited when this program plan is next updated.

The priority areas discussed in depth in this plan are:

- *Uniform, timely, integrated, accurate and complete speed data (Focus Area A),*
- *Research and evaluation regarding the effects of travel speed and speed limits on crash risk and regarding human factors related to speed (Focus Area B; Goals 1 and 2),*
- *Engineering measures to better manage speed, including setting appropriate speed limits, facilitating design of self-enforcing roads, and addressing speed on curves (Focus Area E; Objectives 1-3), and*
- *Education and Communication (Focus Area F).*

COOPERATION

DOT looks forward to working with its partners, stakeholders, and the public to support this shift in traffic safety culture, a shift in the public acceptability of speeding, a shift in speeding-related traffic enforcement techniques and practices, and a shift in how speeding-related information is collected and disseminated. Progress in these areas can lead to significant gains in reducing speeding-related fatalities and injuries. The templates for instituting cultural change are there.

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INTRODUCTION

Speeding -- exceeding the posted speed limit or driving too fast for conditions -- has consistently been estimated to be a contributing factor in approximately one-third of all fatal crashes with annual costs exceeding \$40 billion.³ The precise role of speeding in crashes can be difficult to ascertain, as the speeding is often defined in broad terms. Further, the determination of whether speeding was involved in a fatal crash is often based on the judgment of the investigating law enforcement officer. Even when speeding is listed as a contributing factor in a crash, it may not have been the causative factor.

Speeding is a highly complex issue, involving public attitudes, road user behavior, vehicle performance, roadway design and characteristics, posted speed limits, and enforcement strategies. As a result, an interdisciplinary approach involving engineering, enforcement, and education is needed to reduce speeding-related crashes, fatalities, and injuries. This comprehensive approach is speed management. Speed management involves a balanced effort:

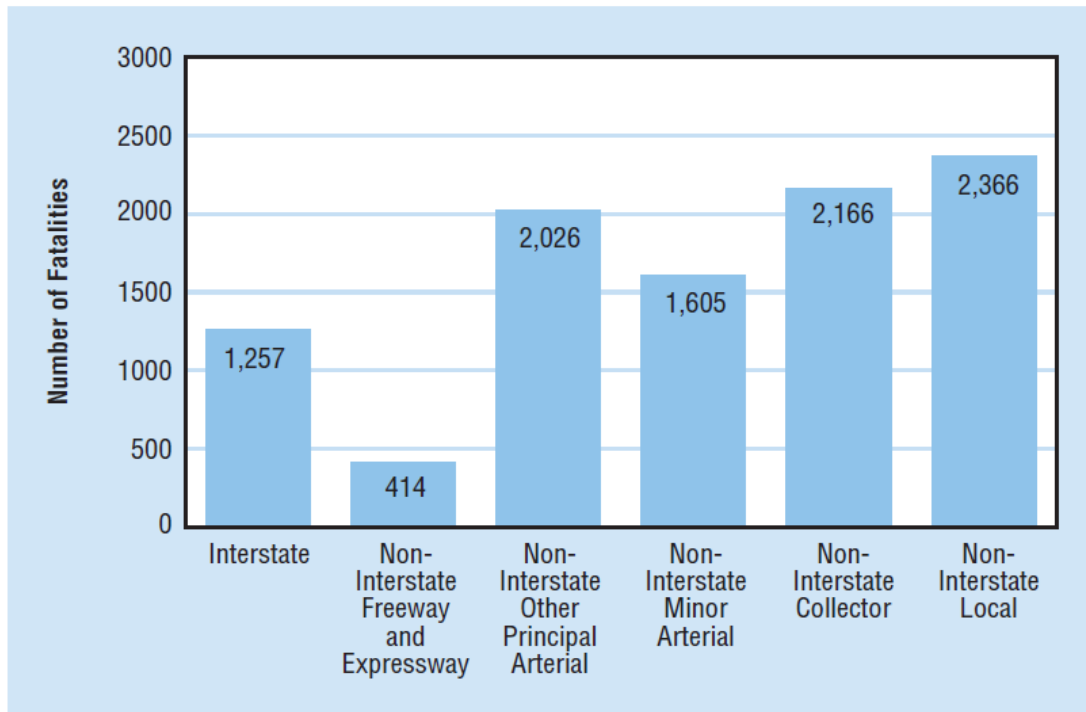
1. Defining the relationship between speed, speeding, and safety,
2. Applying road design and engineering measures to obtain appropriate speeds,
3. Setting speed limits that are safe and reasonable,
4. Applying enforcement efforts and appropriate technology that effectively target crash-producing speeders and deter speeding,
5. Effectively marketing communication and educational messages that focus on high-risk drivers, and
6. Soliciting the cooperation, support, and leadership of traffic safety stakeholders.

While speeding can be considered a national problem, it is clear that effective solutions must be applied locally. In 2011, 87% of speeding-related fatalities occurred on roads that were not interstate highways, as shown in the table below.⁴ The speeding-related fatality rate per vehicle mile traveled is highest on local and collector roads where the lowest speed limits are posted, presenting additional problems. Speeding is not just a passenger-vehicle- or motorcycle-related issue. With respect to large trucks, speed is a factor in about 8% of fatal crashes, and large trucks have a speed related component in 4.3% of work zone fatalities. Additional data is included on pages 34 and 35.

³ NHTSA. (2013, April). Speeding. (Traffic Safety Facts – 2011 Data. Report No. DOT HS 811-751). Washington, DC: Author.

⁴ Ibid.

Speeding-Related Fatalities, by Roadway Function Class, 2011



Speed limits for motorists represent trade-offs between risk and travel times for a road class or specific highway section. Decision-makers often attempt to achieve an appropriate balance between the societal goals of safety and mobility. The process of setting speed limits is often viewed as a technical exercise, but frequently involves value judgments and trade-offs that are handled through the political process in State legislatures and city councils. There is no single “right” answer in setting appropriate speed limits or conducting enforcement activities because policy makers in different communities may legitimately disagree on the priority given to the factors – safety, travel time, enforcement expenditures, or community concerns – that affect decisions about speed limits. The primary focus of speed management must remain on safety.

FEDERAL POLICY ON SPEED MANAGEMENT

The goal of the Speed Management Program Plan is to improve public health and safety by reducing speeding-related crashes and the resulting injuries and fatalities. This Speed Management Program Plan identifies the Federal effort and specific actions to be taken by the DOT to effectively address managing speed and reducing speeding-related crash risk. To accomplish this, a coordinated effort is needed to address the fundamental engineering, enforcement, education, and communication issues through the effective application of effort and combined resources in the coming years. The roles of the Federal government and of State and local governments are clearly different, but share a common interest in ensuring both safe and efficient transportation.

DOT's policy is to provide a roadmap, tools, guidance and resources for State and local governments in designing and applying a balanced and effective speed management program to reduce speeding-related crashes. An Inter-modal "speed team" has been chartered to advance the mission of the DOT by focusing on speed management and speeding-related crashes. Through collaborative efforts, FHWA, FMCSA, and NHTSA are coordinating activities designed to improve road safety and reduce injuries and deaths resulting from speeding-related traffic crashes.

FEDERAL ROLE IN SPEED MANAGEMENT

State and local governments are principally responsible for speed regulation. The Federal role has traditionally been to compile speed-trend and safety statistics, conduct and coordinate research, fund national highway and safety programs, and regulate new vehicle standards. There are two notable exceptions.

- From 1942 to 1945, the War Department ordered a nationwide speed limit of 35 mph to conserve rubber and gasoline for the war effort.
- In 1973 during the oil embargo, Congress enacted the National Maximum Speed Limit, set at 55 mph, to conserve fuel. In addition to conserving fuel, the annual traffic fatality toll declined from 54,052 in 1973 to 45,196 in 1974, a drop of over 16%.⁵ As a result of the reduction in traffic fatalities, the Congress enacted Public Law 93-643, making the NMSL permanent.

In 1995 Congress repealed the NMSL, ending the Federal sanctions for noncompliance and the requirement for States to submit speed compliance data. In the years following the repeal, States

⁵ NHTSA. (2009, March). Early Estimate of Motor Vehicle Traffic Fatalities in 2008. (Traffic Safety Facts Research Note. Report No. DOT HS 811 124). Washington, DC: Author.

and communities have shown renewed interest in finding better ways to effectively manage speeds and reduce speeding-related crashes.

Since repeal of the NMSL, the Federal role shifted from monitoring compliance and enforcement of the NMSL to conducting research and offering guidance in support of State and local highway safety programs, and providing science-based countermeasures; and technical guidance for managing speed.

SPEED MANAGEMENT RATIONALE

The primary reason for regulating individual speed choices is the significant risks drivers can impose on themselves and others. For example, a driver may decide to drive faster, accepting a higher probability of a crash, injury, or even death in exchange for a shorter trip time. This driver's decision may not adequately take into consideration the risk this choice imposes on other road users. This imposition of risk on others, and the desire to protect public safety, are the primary reasons for the government's role in setting speed limits.

Another reason for regulating speed derives from the inability of some drivers to correctly judge the capabilities of their vehicles (e.g., braking, steering) and to anticipate roadway geometry and roadside conditions sufficiently to determine appropriate driving speeds. This reason may not be as relevant for experienced motorists driving under familiar circumstances. However, inexperienced drivers or experienced drivers operating in unfamiliar surroundings may underestimate risk and make inappropriate speed choices. Even drivers familiar with a particular road can make inappropriate decisions because of fatigue or other factors.

A final reason for regulating speed is the tendency of some drivers to underestimate the effects of speed on crash probability and severity. This problem is often manifested by young and inexperienced drivers and may be a problem for other drivers. The risks imposed on others and the adequacy of information about appropriate driving speeds vary by road class. For example, the risks imposed on others by individual driver speed choices are likely to be relatively small on rural Interstate highways where free-flowing traffic creates fewer opportunities for conflict with other road users or roadside obstacles. Moreover, under normal conditions, drivers typically have adequate information to determine appropriate driving speeds because these highways are usually built to the highest design standards, access is limited, and roadside activity is minimal. In contrast, the risks imposed on others by individual driver speed choices may be large on urban arterials where roadside activities are numerous and traffic volumes are high for extended periods of the day, increasing the probability of conflict with other road users. These differences are important factors for consideration in setting appropriate speed limits on different types of roads.

SETTING SPEED LIMITS

Speed limits are the most common method for managing speed. The current framework for setting speed limits was developed in the 1920s and 1930s. Each State has a basic rule that requires drivers to operate vehicles at speeds that are reasonable and prudent for existing environmental conditions. State statutes specify speed limits that generally apply to different road types or geographic areas. However, State and most local governments have the authority to set speed limits on the basis of engineering studies by establishing speed zones for highway sections where statutory limits do not fit specific road or traffic conditions.

Speed limits in speed zones are established for favorable conditions -- good weather, free-flowing traffic, and good visibility. Drivers are expected to reduce speeds as conditions change or deteriorate. The most common approach sets the limit on the basis of an engineering study, which takes into consideration such factors as operating speeds of free-flowing vehicles, crash experience, roadside development, roadway geometry, and parking and pedestrian activity levels to make a judgment about the speed at which the posted limit should be set. However, pressure from the public or from elected officials to lower speed limits is common and hard to resist when procedures for setting speed limits are seen as subjective and not well understood. Speed management is a highly localized issue where States and communities have flexibility to determine the appropriate balance between risk and mobility.

DRIVER RISK AND PERCEPTION

Driver behavior can impose risks that affect both the probability and severity of crashes. Speed is directly related to injury severity in a crash. The probability of severe injury increases sharply with the impact speed of a vehicle in a collision. The risk is even greater when a vehicle strikes a pedestrian, the most vulnerable of road users. Although injury to vehicle occupants in a crash can be mitigated by safety belt use and air bags, the strength of the relationship between speed and crash severity alone is sufficient reason for managing speed.

Speed is also linked to the probability of being in a crash, although the evidence is not as compelling because a crash is a complex event that seldom can be attributed to a single factor. Crash involvement on interstate highways and rural roads has been associated with the deviation of the speed of crash-involved vehicles from the average speed of traffic. Crash involvement has also been associated with travel speed, at least on certain road types as well as based on prior driving history. For example, single-vehicle crash involvement rates on rural roads have been shown to rise with travel speed. In the commercial vehicle arena, there is a strong association between speeding violations and crash involvement for both individual drivers and motor carrier companies.

Speeding is a pervasive behavior. In a recent national survey about three-quarters of drivers reported that they drove over the speed limit on all types of roads within the past month, and one-quarter reported speeding over the limit on the day of interview.⁶ The question of what constitutes appropriate driving speeds will persist as long as there are individual drivers making choices about risk and time efficiency. Ultimately, decisions about appropriate speed limits depend on societal risk tolerance, valuation of time, and willingness to ensure driver accountability.

Technological advances may offer additional techniques for controlling driving speeds on all types of roads. For example, technology could help establish limits that are more sensitive to actual changes in road conditions and thus provide drivers with better information. With modern vehicles becoming quieter and more comfortable at higher speeds, technology installed on the roadside or onboard vehicles could alert drivers that are approaching the design limits of the road.

OVERVIEW OF CURRENT ISSUES AND CHALLENGES

To address speed from a single perspective, whether it is enforcement, engineering, or education, is rarely successful. Beyond the appropriate coordination of these various disciplines and approaches, consideration must also be given to human factors, vehicle manufacturing standards, rule-making and emerging issues related to technology and collateral traffic safety factors.

Speeding violations are arguably the most common reason for traffic stops around the country. In this regard, speeding becomes a “gateway” violation that enables law enforcement officers to detect impaired drivers, occupant protection violations, and a host of traffic safety and/or criminal issues.

Speed challenges also include a lack of consistency in the application of enforcement and adjudication of speed, and enforcement thresholds that often reflect outdated responses to the national mandatory speed limit (NMSL). An example is the perception that drivers can exceed the speed limit by 10 mph before any action might be taken. This contributes to a lack of the recognition of the risks associated with speed. Additionally, understanding of the correlation of speed to crash risk is limited. Finally, our understanding of speeding behavior is changing. In short, speeding is a highly complex subject requiring a well thought-out and multi-disciplinary approach. As one of the most complex traffic safety issues facing the nation, speed management has historically proven to require a coordinated and collaborative approach. Coordination among enforcement, engineering, education, and research and data components are critical to the development and evolution of effective speed management strategies.

⁶ Royal, D. (2003, October). *National Survey of Speeding and Unsafe Driving Attitudes and Behavior: 2002, Volume II, Findings*. (Report No. DOT HS 809 730; also listed as DOT HS 809 688). Washington, DC: National Highway Traffic Safety Administration.

A VISION FOR SPEED MANAGEMENT BASED ON CORE PRINCIPLES

As we work to reduce speed related crashes, injuries, and fatalities, these four principles will guide the Speed Management Program Plan:

Strong Leadership: The DOT will maintain a strong leadership role in the area of speed management by conducting research, providing data analysis, establishing strategies, and supporting the implementation of proven countermeasures and activities that reduce the incidence of speeding and speeding-related crashes. In addition, the DOT will promote the integration of the six focus areas outlined in this plan into speed management activity planning and implementation. This focus should strengthen future efforts to reduce speed related fatalities across the nation.

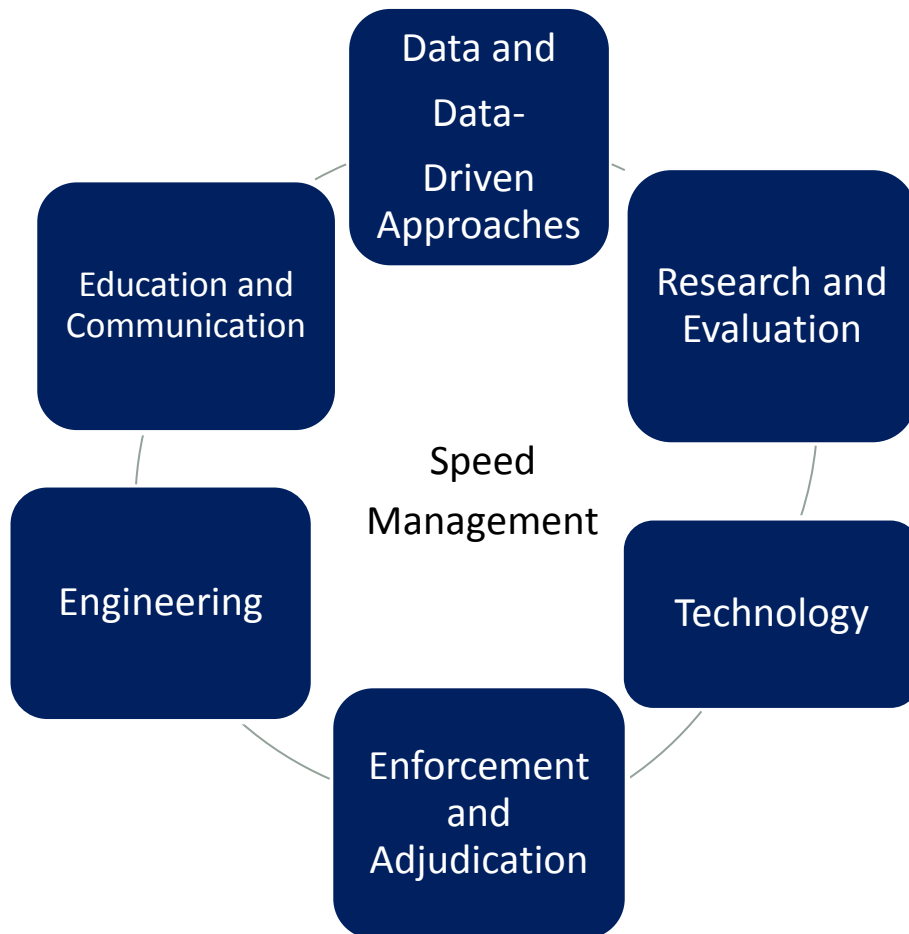
Proven Approaches/Countermeasures: The DOT will work with States to expand the implementation of proven countermeasures and test innovative strategies for reducing speed related crashes. These countermeasures and strategies include the application of appropriate engineering practices, effective messaging and data-driven enforcement activity, and encouraging the coordination of the disciplines associated with engineering, enforcement, and education and communication.

Research and Technology Transfer: The DOT will continue to conduct research and the rigorous evaluation of demonstration projects to identify countermeasures, roadway designs, and strategies for reducing speed related crashes. Special emphasis will be placed on coordinating effort and disseminating information on best practices to State and local traffic safety professionals.

Accountability and Continuous Improvement: The DOT will promote and participate in developing the necessary data collection and analysis methodologies for measuring the effectiveness of its speed management programs, countermeasures, and activities. Through its regional and division offices, assistance will be provided to the States in sharing new information and available data.

FOCUS AREAS OVERVIEW

This plan incorporates the traditional view of speed management from an Engineering, Enforcement, Educational, and Evaluative perspective, along with emphasis on two additional critical areas of concern; Technology and Data. This plan also expands evaluative perspectives to include an emphasis on Research and Evaluation. As illustrated below, taken together, these six priority focus areas provide the Department with a meaningful foundation for addressing speed management. The plan also identifies a select number of priority areas that warrant immediate, more focused attention. See the Appendix.



FOCUS AREA A: DATA AND DATA-DRIVEN APPROACHES

The effective, efficient, and consistent collection, analyses, and dissemination of high-quality data is the foundation upon which all traffic safety efforts, including those related to speed and speed management must be built. In approaching data related to speed, the DOT will focus on accuracy and quality, while continually seeking ways to improve data collection and analysis. This requires coordination within the DOT and the States, as well as a commitment to objective data analysis of existing or emerging speed related data trends. Two different types of speeding-related data are essential. First, data on the role of speeding in traffic injuries and deaths is needed. Second, data on current operating speeds are needed to assess the impact of various speed management programs. The following characteristics should guide these efforts:

Collaboration: Collaborative and cooperative efforts among States, localities, law enforcement, and NHTSA, FHWA, and FMCSA are necessary to produce the highest quality data.

Standardization: Enhancing the standardization of data collection processes to ensure a common understanding and the application of standard nomenclature related to speed and speed management will be critical to meeting the goals of this plan.

Objective Analysis: Conducting the most objective and meaningful analysis of speed data, with an emphasis on the development of effective countermeasures will be an essential component of meeting the goals of this plan.

GOAL A.1: Obtain and report uniform, timely, consistent, integrated, accurate, and complete speed data for the purpose of informing and directing speed management activities.

Objective A.1.1: Identify data needs

Planned Actions:

- A.1.1.1 Inventory existing speed data from publicly available sources
- A.1.1.2 Identify data needs/gaps in law enforcement, engineering, research, etc.
- A.1.1.3 Identify model data elements for collection and reporting by States and for use in national data analyses
- A.1.1.4 Create a national definition for “speed-related crash”

Objective A.1.2: Collect and monitor data and identify trends

Planned Actions:

- A.1.2.1 Promote timely data reporting and publishing
- A.1.2.2 Monitor and report National, State, and local speed trends
- A.1.2.3 Periodically update and maintain information on State speed limit laws and posted speed limits to be disseminated through a Speed Register
- A.1.2.4 Work with States to ensure they identify jurisdictions, road types, and locations where excessive vehicle speeds and related crashes and fatalities are a safety problem
- A.1.2.5 Identify/highlight crash corridors – opportunity locations for new safety initiatives

Objective A.1.3: Report and Disseminate Data

Planned Actions:

- A.1.3.1 Disseminate data (speed trends, speed limits, speeding-related crashes, etc.) to State and local jurisdictions in a timely manner to facilitate planning and analysis of needs

FOCUS AREA B: RESEARCH & EVALUATION

Research and evaluation serves to advance our understanding of the human factors, countermeasure effectiveness, and the behaviors that contribute to speed related injuries and deaths. This plan continues DOT's long-standing commitment to expanding knowledge on highway safety problems and issues and combining that knowledge with the best available data to formulate appropriate countermeasures and strategies for speed management. A coordinated effort is necessary to ensure that the department is expending resources and energy on the most effective possible array of speed-related research and evaluation activities.

The objective is to develop the broadest possible understanding of the content and nature of speed management, as well as the need for collaboration with priority program areas to integrate speed into these issues. This requires the incorporation of new concepts and ideas into the effort. The following characteristics should guide these efforts:

Building on Existing Knowledge: Maintaining our base of knowledge and a commitment to research and evaluation efforts that enhance our understanding of relevant issues and foster the development of potential solutions and countermeasures to speed-related crashes, injuries, and fatalities. For example, speeding-driving over the posted limit-is a relatively common practice, yet the relationship between speeding and crash causation is more difficult to measure. We need to better understand the relationship between speeding and crashes

Seek out Innovative Approaches to Speed Management: Examine new ideas and expanding our understanding of the factors and conditions that impact speed management

Continuous Learning: Conduct research efforts designed to further our understanding and knowledge of speeding, resulting crashes, and the collateral issues associated with speed management

GOAL B.1: Determine the relationship between speeding and crashes

Objective B.1.1: Determine the effects of travel speed and posted speed limits on crash risk

Planned Actions:

- B.1.1.1 Conduct review of crash and relevant speed data to analyze relationship between speed and crash likelihood

GOAL B.2: Address human factors and behaviors related to speeding and determine appropriate countermeasures to influence those behaviors

Objective B.2.1: Determine human factors related to speeding

Planned Actions:

- B.2.1.1 Continue to conduct nationally representative surveys of drivers to monitor trends and collect information on attitudes regarding speeding and related countermeasures
- B.2.1.2 Conduct research investigating types of drivers and types of speeding behaviors
- B.2.1.3 Develop research using safety data from the Second Strategic Highway Safety Research Program (SHRP2) and other data sources to investigate speed

GOAL B.3: Research and evaluate countermeasures, technology, and design factors related to speed and safety

Objective B.3.1: Determine appropriate non-infrastructure countermeasures to influence driving behaviors

Planned Actions:

- B.3.1.1 Research the impact of different types of sanctions for speeding
- B.3.1.2 Evaluate law enforcement strategies to address speeding

Objective B.3.2: Evaluate the safety benefits of speed limits

Planned Actions:

- B.3.2.1 Evaluate the long-term effects of raising and lowering speed limits on speed and crash risk
- B.3.2.2 Evaluate the effects of minimum speed limits
- B.3.2.3 Conduct research on those roadway design factors that influence driver speed selection and speed prediction models
- B.3.2.4 Research methods to achieve safe and reasonable traffic speeds in areas not suitable for traditional traffic-calming techniques
- B.3.2.5 Evaluate the long-term effectiveness of traffic-calming techniques for reducing speed-related pedestrian crashes in rural and suburban areas that have been currently implemented by communities.

Objective B.3.3: Determine appropriate speeds on curves

Planned Actions:

- B.3.3.1 Research engineering solutions for achieving appropriate speeds on curves
- B.3.3.2 Research and evaluate low-cost driver perceptual countermeasures, such as narrower painted lanes, to reduce speeds
- B.3.3.3 Research and evaluate the effect of driver perceptual measures such as optical speed bars and speed-activated roadside displays that warn drivers who are exceeding safe speeds based on curve geometry, pavement friction, and vehicle

Objective B.3.4: Test and evaluate the implementation of Intelligent Transportation Safety technologies and engineering countermeasures for speed management

Planned Actions:

- B.3.4.1 Test and evaluate the effectiveness of variable speed limits (VSL) from a safety and traffic efficiency perspective on busy urban freeways and rural interstate corridors
- B.3.4.2 Test and evaluate VSL applications in combination with automated speed enforcement systems

- B.3.4.3 Conduct research to develop crash modification factors for engineering and enforcement countermeasures, such as VSL and ASE (Automated Speed Enforcement)
- B.3.4.4 Develop and evaluate cooperative infrastructure-vehicle systems that alert drivers when traveling too fast for conditions.

Objective B.3.5: Research and evaluate countermeasures related to heavy trucks and commercial vehicles

- B.3.5.1 Identify, research, and evaluate human factors related to the operation of, and interaction with heavy trucks and commercial vehicles.

FOCUS AREA C: TECHNOLOGY

Communities are using technological solutions to facilitate speed measurement, enforcement, engineering, and emerging countermeasures. Active and passive technologies already in place play a significant role in speed management, and the Department's strategic objectives must factor in the use of technology to enhance traffic safety. This will be accomplished through a variety of efforts, including coordination with internal and external partners, support for research and evaluation, and leadership of the Department. The following should characterize these efforts:

Providing Guidance and Support: Provide guidance and support to organizations and activities that measure, encourage, and reinforce the application of technology using appropriate methodologies to impact speed management.

Support for the Establishment of Standards: Provide leadership in the identification of the highest quality standards for speed measurement and countermeasure technology to build and maintain public trust in the reliability and accuracy of speed measurement technology

Promotion of Quality Assurance: Establish and maintain a leadership role in the promotion of quality assurance as it relates to speed measuring devices and technology.

Research on Technological Solutions: Maintaining a leadership role in identifying technological solutions for speed management that incorporate the best available research and scientific validation, while at the same time continually seeking the enhancement of existing and new technology.

GOAL C.1: Promote the integration and public acceptance of technology for achieving appropriate driving speeds

Objective C.1.1: Promote the appropriate use of Speed Enforcement technology

Planned Actions:

- C.1.1.1 Identify and publish appropriate applications for automated speed enforcement technology and evaluate its safety effectiveness
- C.1.1.2 Update implementation guidelines for automated speed enforcement systems to include operational and administrative standards
- C.1.1.3 Develop model specifications for ASE technologies

- C.1.1.4 Develop a model automated speed enforcement contract for use by States and local jurisdictions to maximize safety focus and benefits
- C.1.1.5 Identify and market noteworthy practices that contribute to public acceptance and reinforce fairness in the use of automated speed enforcement technology
- C.1.1.6 Initiate rulemaking process requiring speed-limiting devices on heavy vehicles (GVWR over 26,000 pounds)

Objective C.1.2: Promote the use of Intelligent Transportation Systems technologies to ensure safe travel speeds

Planned Actions:

- C.1.2.1 Identify infrastructure-to-vehicle technologies for speed management

FOCUS AREA D: ENFORCEMENT AND ADJUDICATION

Positive gains in traffic safety can be influenced by meaningful and consistent enforcement of traffic laws. This is particularly true of speed and speed management. Much of the compliance with speed limits is the result of speed enforcement. Traffic enforcement in general, and speed enforcement in particular involves personal contact with drivers. The results of those contacts can have an impact on driver behavior and should be viewed as opportunities to enhance speed management strategies at all levels. The following characteristics will guide these efforts:

Data-Driven Enforcement: Maintaining a leadership role in ensuring that enforcement activity is data-driven and employs the most effective tactics available. The importance of a data driven enforcement model should emphasize placing resources where they are most needed for safety and can be used to their best advantage, rather than focusing strictly on output based workload indicators.

Speed as a Gateway Violation: Establishing and active promotion of the linkage between speed and other high risk behaviors, e.g., impaired driving, failing to use occupant protection equipment, can result in increased traffic safety by using speed violations as a precursor to collateral enforcement activities. As a result, speed enforcement is a viable and critical strategy for the identification of additional safety violations during sustained enforcement, as well as crackdown and mobilization efforts.

Fair and Equitable Enforcement: Maintaining a leadership position in the promotion of fair and equitable enforcement of speed statutes will be critical to the enforcement objective. The DOT must reinforce the importance of valid engineering efforts to support the establishment of safe and reasonable speed limits to support enforcement efforts.

Enhancing Public Policy Decision Making: The DOT will maintain a leadership role in providing technical assistance and support to the States and localities in establishing speed management strategies that meet localized needs.

GOAL D.1: Effect a change in law enforcement, judicial, and public perceptions of lower thresholds for speed enforcement in conjunction with communications strategies that emphasize the dangers of speeding

Objective D.1.1: Promote effective and publicly acceptable speed enforcement activities

Planned Actions:

- D.1.1.1 Promote and support State/Local deployment of enforcement efforts in locations with demonstrable high numbers of crashes
- D.1.1.2 Develop a model enforcement policy on variable speed limits

Objective D.1.2: Promote the use of scientifically valid speed measurement technology for enforcement

Planned Actions:

- D.1.2.1 Continuously provide law enforcement and State Highway Safety Offices with current listing of approved speed measuring devices (Conforming Products List)
- D.1.2.2 Identify coordinating entities or agencies for the management and oversight of the maintenance of speed measuring devices
- D.1.2.3 Provide model training curricula for speed measuring device operators
- D.1.2.4 Identify existing incentive programs to assist jurisdictions in creating a structure to manage their local speed programs through the purchase and maintenance of speed measuring devices
- D.1.2.5 Provide technical assistance to jurisdictions on alternative enforcement strategies where the use of speed measuring devices is limited or prohibited by law

Objective D.1.3: Establish RADAR and LIDAR performance and maintenance standards through National Institute of Standards and Technology (NIST) and the Enforcement Technology Advisory Technical Subcommittee (ETATS)

Planned Actions:

- D.1.3.1 Complete Interagency Agreement with the Department of Commerce, National Institute of Standards and Technology to provide support to NHTSA for defining technical and testing standards for speed measuring devices commonly used by law enforcement

Objective D.1.4: Develop and implement speed measurement training for law enforcement

Planned Actions:

- D.1.4.1 Provide a model speed-measuring device operator training program
- D.1.4.2 Provide FMCSA training for speed enforcement of heavy trucks and buses through law enforcement professional organizations
- D.1.4.3 Develop and pilot a recruit training program to emphasize the importance and value of traffic enforcement. Develop a complementary program for mid-career officers
- D.1.4.4 Develop a dynamic technical assistance program to support States and local jurisdictions in building and implementing speed management plans

Objective D.1.5: Provide education to judges and prosecutors

Planned Actions:

- D.1.5.1 Offer speed management program education opportunities for judges through the American Bar Association, National Traffic Law Center, National Association of Prosecutor Coordinators, and National Judicial College
- D.1.5.2 Offer supplemental materials, training, support, and/or judicial education to law enforcement, prosecutors, and judges that emphasizes speeding as a Serious CDL Traffic Offense with convictions that can lead to a driver CDL disqualification, as described in 49 CFR 383.51

FOCUS AREA E: ENGINEERING

Engineering plays a critical role in achieving the goal of reducing speeding-related fatalities, serving as a foundation for establishing and implementing an effective speed management program. Properly designed roadway and roadway elements can reduce speeding-related crashes. Also, the application of appropriate engineering practices in setting reasonable speed limits becomes a critical element of effective roadway operation. Encouraging the integration of speed management techniques and technology into the existing highway system and the Intelligent Transportation System has the potential to improve voluntary compliance with speed limits and prevent traveling at unsafe speeds. The following characteristics will guide these efforts:

Approaching Speeding as an Integrated Roadway Engineering and Behavioral

Issue: The DOT will continue to promote the use of engineering countermeasures that result in self-enforcing roadways to influence driver behavior. Promoting roadway designs that incorporate appropriate geometric elements, signing/ signals, and integration with Intelligent Transportation Systems that affect operating speeds to help reduce crashes and foster efficient movement of traffic.

Promote the Use of Appropriate Engineering Practices to Establish Speed Limits:

The DOT will promote and support the use of appropriate engineering practices as the foundation for setting reasonable speed limits. Doing so is critical to safe and effective roadway operation, enforcement activity, and can serve as the basis for meaningful communication with the public.

Integrating Speed Management with Engineering Safety Initiatives: The DOT recognizes speeding as a cross-cutting safety issue that impacts many safety areas, including roadway departure crashes, intersection crashes, and pedestrian crashes. The DOT is committed to achieving crosscutting benefits with its major focus areas. DOT will continue efforts to incorporate speed management into other safety areas.

GOAL E.1: Identify and promote engineering measures to better manage speed and reduce speeding related injuries and fatalities

Objective E.1.1: Engineer appropriate speed limits

Planned Actions:

- E.1.1.1 Promote appropriate engineering study guidance and tools such as USLIMITS for setting speed limits

Objective E.1.2: Facilitate design of self-enforcing roads

Planned Actions:

- E.1.2.1 Develop a speed prediction model to be used as part of the roadway design process to achieve safe and reasonable travel speeds
- E.1.2.2 Develop guidelines on the use of methods to achieve safe and reasonable traffic speeds on main roads through towns and other areas not suitable for traditional traffic-calming techniques
- E.1.2.3 Promote road diets and roundabouts as countermeasures to manage speed

Objective E.1.3: Manage speed on curves

Planned Actions:

- E.1.3.1 Develop resources to promote the use of engineering solutions for achieving safe speeds on curves
- E.1.3.2 Promote low-cost driver perceptual countermeasures to reduce speeds
- E.1.3.3 Develop resources to promote speed-activated roadside displays that warn drivers who are exceeding safe speeds

Objective E.1.4: Promote ITS technologies and engineering countermeasures for speed management

Planned Actions:

- E.1.4.1 Provide technical support for communities using ASE based on appropriate engineering studies to support safety improvement
- E.1.4.2 Develop resources to promote variable speed limits.

Objective E.1.5: Integrate speed management into FHWA safety programs that focus on roadway departure, intersections, and pedestrian crashes

Planned Actions:

- E.1.5.1 Integrate the speed management countermeasures into roadway departure, intersection, and pedestrian safety areas
- E.1.5.2 Develop speed management training modules that could be incorporated into training materials for roadway departure, intersection, and pedestrian safety programs

FOCUS AREA F: EDUCATION & COMMUNICATIONS

Education and communication strategies that inform and influence the public on the importance of speed management will be critical components in the Department's Speed Management Program Plan. Education is particularly important for developing a broad understanding of the nature and scope of speed as a traffic safety and transportation efficiency issue. Communicating clear and effective messages to traffic safety partners, highway safety professionals and private and public stakeholders will support new and existing sustained enforcement efforts.

Research and evaluation of communication programs have affirmed the value of using specific communication strategies to promote successful campaigns. Communication strategies can influence public understanding and impact social norms, values, attitudes and opinions. Effective communications can use a wide range of methods to design programs to fit specific circumstances. In support of the Department's Speed Management Program Plan, the education and communication strategy will include: *planning and strategy development; developing and pretesting concepts, messages, and materials, implementing the campaign, and assessing campaign effectiveness*. The following characteristics will guide these efforts:

Planning and Strategy Development: Appropriate and effective planning will provide the foundation for the Speed Management Program Plan. Planning will include problem identification, audience determination, activities, partnerships, and evaluation.

Developing and Pretesting Concepts, Messages, and Materials: Develop relevant messages and concepts; apply qualitative research methods with the target audience.

Emphasis on education in support of enforcement: While enforcement is a critical activity associated with speed management, the DOT will place an emphasis on increasing effective messaging and public education to support existing sustained enforcement efforts, as well as to support aligned traffic safety activities.

Emphasis on the risks created by excessive speed: Public support for traffic safety initiatives can be enhanced through a more thorough understanding of the risks associated with speeding. While many people acknowledge that speeding is dangerous, there is often a lack of personal responsibility and accountability when individuals evaluate their own driving behaviors. Creating an understanding of the risks of speeding will be critical to a successful communication effort.

Implement the Campaign: Implement the speed communications campaign through strategically selected channels, TV and radio, partner dissemination, and earned and social media to reach the target audience. Assess the frequency and effectiveness of messages and modify the communications campaign if necessary.

GOAL F.1: Increase public awareness and recognition of the risks and hazards associated with speeding

Objective F.1.1: Develop a national communications strategy

Planned Actions:

- F.1.1.1 Evaluate existing speed management creative materials for usefulness
- F.1.1.2 Conduct market research to clearly understand the problem and identify target audience
- F.1.1.3 Develop long-range and interim public attitude objectives; align strategic communications plan to objectives
- F.1.1.4 Develop creative concepts, as necessary
- F.1.1.5 Conduct qualitative research to determine best messages that resonate with target audience and best methods to reach them
- F.1.1.6 Produce collateral material, as necessary
- F.1.1.7 Launch campaign
- F.1.1.8 Evaluate campaign usefulness by measuring earned and social media, Web hits, etc.

GOAL F.2: Establish the DOT as the authoritative source for information related to speed management through the development and implementation of a unified communications plan

Objective F.2.1: Develop an education and outreach plan that supports the Department's Speed Management Program Plan

Planned Actions:

- F.2.1.1 Catalog, develop and distribute speed management resources (i.e., bibliographies, training documents, and best practices) by collaborating with highway safety partners, DOT modes, and other safety advocates
- F.2.1.2 Develop consumer education materials on the hazards of speeding

SUMMARY

The goal of this Speed Management Program Plan is to improve public health and safety by reducing speeding-related fatalities and injuries. The objectives of the plan are:

1. Reduce speeding-related fatalities,
2. Reduce speeding-related injuries, and
3. Improve the safety experience of all road users, including motorists, pedestrians and bicyclists.

Over the last 40 years, there have been significant reductions in fatalities and injuries related to impaired driving and occupant protection. Recent efforts are raising public awareness about distracted driving and are making a positive difference for that traffic safety problem. The percentage of fatal crashes that are speeding-related has remained around 31% for more than a decade, as shown in the tables below. The relationship between drivers and speeding is complicated and often paradoxical in nature. States and communities face many challenges, including a continuing battle in the court of public opinion, in their efforts to reduce speeding-related fatalities and injuries.

Achieving significant reductions in speeding-related crashes will likely require comprehensive efforts by Federal, State, local, and advocacy stakeholders to modify the perceived dangers and acceptability of speeding by the public. This plan seeks to move toward this change, and sets out priorities and an action plan to reduce speeding-related crashes in the next five years. This plan identifies six primary focus areas; data, research and evaluation, technology, enforcement/adjudication, engineering, and education/communications. Specific goals, objectives and action items are identified for each focus area. The plan also identifies a select number of priority areas that warrant immediate, more focused attention (see Appendix), including:

- *Uniform, timely, integrated, accurate and complete speed data (Focus Area A)*
- *Research and evaluation regarding the effects of travel speed and speed limits on crash risk and regarding human factors related to speed (Focus Area B; Goals 1 and 2)*
- *Engineering measures to better manage speed, including engineering safe and reasonable speed limits, facilitate design of self-enforcing roads and addressing speed on curves (Focus Area E; Objectives 1-3)*
- *Education and communication (Focus Area F)*

DOT looks forward to working with its partners, stakeholders, and the public to support this comprehensive speed management safety program to reduce speeding-related fatalities and injuries over the next five years.

SPEEDING-RELATED FATAL CRASHES BY ROADWAY FUNCTION

***SPEEDING-RELATED FATALITIES IN MOTOR VEHICLE TRAFFIC CRASHES
BY YEAR AND ROADWAY FUNCTION CLASS
FATALITY ANALYSIS REPORTING SYSTEM (FARS) 2002-2010 FINAL AND 2011 ARF***

| Year | Roadway Function Class | | | | | Total |
|------|------------------------|-----------|-----------|-------|---------|--------|
| | Interstate | Arterials | Collector | Local | Unknown | |
| 2002 | 1,817 | 5,167 | 3,310 | 3,390 | 115 | 13,799 |
| 2003 | 1,839 | 5,253 | 3,216 | 3,070 | 121 | 13,499 |
| 2004 | 1,824 | 5,135 | 3,195 | 2,953 | 184 | 13,291 |
| 2005 | 1,858 | 5,295 | 3,196 | 3,033 | 201 | 13,583 |
| 2006 | 1,787 | 5,231 | 3,314 | 3,064 | 213 | 13,609 |
| 2007 | 1,626 | 5,148 | 3,176 | 3,052 | 138 | 13,140 |
| 2008 | 1,473 | 4,479 | 2,866 | 2,828 | 121 | 11,767 |
| 2009 | 1,285 | 4,126 | 2,514 | 2,660 | 79 | 10,664 |
| 2010 | 1,429 | 4,169 | 2,247 | 2,518 | 145 | 10,508 |
| 2011 | 1,257 | 4,045 | 2,166 | 2,366 | 110 | 9,944 |

SPEEDING-RELATED CRASHES BY VMT AND ROADWAY FUNCTION

***SPEEDING-RELATED FATALITIES IN MOTOR VEHICLE TRAFFIC CRASHES,
VEHICLE MILES TRAVELED (VMT) AND FATALITY RATES PER 100 MILLION VMT
BY YEAR AND ROADWAY FUNCTION CLASS
FATALITY ANALYSIS REPORTING SYSTEM (FARS) 2002-2010 FINAL AND 2011 ARF
VMT - FEDERAL HIGHWAY ADMINISTRATION (FHWA)***

| Year | Interstate | | | Arterial | | | Collector | | | Local | | |
|------|------------|---------|-----------------------------------|------------|-----------|-----------------------------------|------------|---------|-----------------------------------|------------|---------|-----------------------------------|
| | Fatalities | VMT | Fatality Rate per 100 Million VMT | Fatalities | VMT | Fatality Rate per 100 Million VMT | Fatalities | VMT | Fatality Rate per 100 Million VMT | Fatalities | VMT | Fatality Rate per 100 Million VMT |
| 2002 | 1,817 | 689,817 | 0.26 | 5,167 | 1,371,865 | 0.38 | 3,310 | 416,833 | 0.79 | 3,390 | 376,993 | 0.90 |
| 2003 | 1,839 | 702,407 | 0.26 | 5,253 | 1,392,232 | 0.38 | 3,216 | 417,252 | 0.77 | 3,070 | 378,330 | 0.81 |
| 2004 | 1,824 | 721,783 | 0.25 | 5,135 | 1,431,118 | 0.36 | 3,195 | 422,882 | 0.76 | 2,953 | 389,005 | 0.76 |
| 2005 | 1,858 | 727,567 | 0.26 | 5,295 | 1,447,543 | 0.37 | 3,196 | 420,966 | 0.76 | 3,033 | 393,354 | 0.77 |
| 2006 | 1,787 | 735,202 | 0.24 | 5,231 | 1,454,848 | 0.36 | 3,314 | 424,583 | 0.78 | 3,064 | 399,738 | 0.77 |
| 2007 | 1,626 | 739,753 | 0.22 | 5,148 | 1,460,592 | 0.35 | 3,176 | 422,893 | 0.75 | 3,052 | 407,886 | 0.75 |
| 2008 | 1,473 | 719,335 | 0.20 | 4,479 | 1,435,824 | 0.31 | 2,866 | 414,094 | 0.69 | 2,828 | 407,275 | 0.69 |
| 2009 | 1,285 | 716,976 | 0.18 | 4,126 | 1,420,019 | 0.29 | 2,514 | 411,328 | 0.61 | 2,660 | 402,069 | 0.66 |
| 2010 | 1,429 | 723,519 | 0.20 | 4,169 | 1,408,991 | 0.30 | 2,247 | 405,986 | 0.55 | 2,518 | 405,332 | 0.62 |
| 2011 | 1,257 | 720,291 | 0.17 | 4,045 | 1,417,203 | 0.29 | 2,166 | 402,954 | 0.54 | 2,366 | 402,104 | 0.59 |

SPEEDING-RELATED CRASHES BY VEHICLE TYPE

**TOTAL DRIVERS AND SPEEDING DRIVERS INVOLVED IN FATAL MOTOR VEHICLE TRAFFIC CRASHES
BY YEAR AND VEHICLE TYPE
FATALITY ANALYSIS REPORTING SYSTEM (FARS) 2002-2010 FINAL AND 2011 ARF**

| Year | Passenger Car | | | Light Truck - Pickup | | | Light Truck - SUV | | | Light Truck - Van | | | Light Truck - Other | | |
|------|------------------------|------------------|---------|------------------------|------------------|---------|------------------------|------------------|---------|------------------------|------------------|---------|------------------------|------------------|---------|
| | Total Drivers Involved | Speeding Drivers | | Total Drivers Involved | Speeding Drivers | | Total Drivers Involved | Speeding Drivers | | Total Drivers Involved | Speeding Drivers | | Total Drivers Involved | Speeding Drivers | |
| | Number | Number | Percent | Number | Number | Percent | Number | Number | Percent | Number | Number | Percent | Number | Number | Percent |
| 2002 | 27,236 | 6,439 | 24% | 11,007 | 2,198 | 20% | 6,760 | 1,411 | 21% | 3,708 | 440 | 12% | 87 | 7 | 8% |
| 2003 | 26,422 | 6,024 | 23% | 11,072 | 2,173 | 20% | 7,266 | 1,468 | 20% | 3,727 | 457 | 12% | 107 | 6 | 6% |
| 2004 | 25,568 | 5,827 | 23% | 10,796 | 1,997 | 18% | 7,799 | 1,557 | 20% | 3,667 | 385 | 10% | 105 | 11 | 10% |
| 2005 | 25,046 | 5,747 | 23% | 10,941 | 2,145 | 20% | 8,150 | 1,600 | 20% | 3,709 | 419 | 11% | 79 | 7 | 9% |
| 2006 | 24,162 | 5,664 | 23% | 10,523 | 2,125 | 20% | 8,289 | 1,659 | 20% | 3,409 | 379 | 11% | 86 | 10 | 12% |
| 2007 | 22,765 | 5,405 | 24% | 10,255 | 2,044 | 20% | 8,191 | 1,630 | 20% | 3,218 | 394 | 12% | 55 | 4 | 7% |
| 2008 | 20,379 | 4,671 | 23% | 9,040 | 1,802 | 20% | 7,278 | 1,439 | 20% | 2,745 | 313 | 11% | 32 | 2 | 6% |
| 2009 | 18,344 | 4,296 | 23% | 8,442 | 1,704 | 20% | 6,913 | 1,378 | 20% | 2,490 | 272 | 11% | 33 | 2 | 6% |
| 2010 | 17,710 | 4,137 | 23% | 8,196 | 1,669 | 20% | 6,761 | 1,388 | 21% | 2,405 | 290 | 12% | 23 | 3 | 13% |
| 2011 | 17,335 | 3,843 | 22% | 7,713 | 1,559 | 20% | 6,719 | 1,259 | 19% | 2,171 | 260 | 12% | 40 | 5 | 13% |

| Year | Large Truck | | | Motorcycles | | | Buses | | | Other/Unknown Vehicles | | |
|------|------------------------|------------------|---------|------------------------|------------------|---------|------------------------|------------------|---------|------------------------|------------------|---------|
| | Total Drivers Involved | Speeding Drivers | | Total Drivers Involved | Speeding Drivers | | Total Drivers Involved | Speeding Drivers | | Total Drivers Involved | Speeding Drivers | |
| | Number | Number | Percent | Number | Number | Percent | Number | Number | Percent | Number | Number | Percent |
| 2002 | 4,537 | 348 | 8% | 3,363 | 1,285 | 38% | 272 | 11 | 4% | 1,143 | 195 | 17% |
| 2003 | 4,652 | 370 | 8% | 3,800 | 1,370 | 36% | 290 | 6 | 2% | 1,181 | 187 | 16% |
| 2004 | 4,826 | 400 | 8% | 4,116 | 1,500 | 36% | 277 | 9 | 3% | 1,241 | 194 | 16% |
| 2005 | 4,892 | 365 | 7% | 4,679 | 1,685 | 36% | 278 | 12 | 4% | 1,446 | 203 | 14% |
| 2006 | 4,721 | 379 | 8% | 4,961 | 1,837 | 37% | 303 | 11 | 4% | 1,392 | 184 | 13% |
| 2007 | 4,597 | 389 | 8% | 5,306 | 1,908 | 36% | 278 | 13 | 5% | 1,354 | 210 | 16% |
| 2008 | 4,032 | 324 | 8% | 5,405 | 1,925 | 36% | 251 | 8 | 3% | 1,254 | 203 | 16% |
| 2009 | 3,175 | 232 | 7% | 4,601 | 1,619 | 35% | 221 | 8 | 4% | 1,118 | 210 | 19% |
| 2010 | 3,453 | 293 | 8% | 4,647 | 1,644 | 35% | 250 | 5 | 2% | 1,154 | 205 | 18% |
| 2011 | 3,557 | 282 | 8% | 4,741 | 1,676 | 35% | 243 | 7 | 3% | 1,149 | 189 | 16% |

Appendix: SPEED MANAGEMENT PROGRAM PLAN (Priority Areas in *Italics*)

Focus Area A: Data and Data-Driven Approaches

GOAL: To capture and report uniform, timely, integrated, accurate, and complete speed data

- *Objective 1: Identify data needs*
- *Objective 2: Collect and monitor data and identify trends*
- *Objective 3: Reporting and Dissemination of Data*

Focus Area B: Research & Evaluation

GOAL 1: Establish the relationship between speeding and crashes

- *Objective 1: Determine the effects of travel speed and speed limits on crash risk*

GOAL 2: Address human factors and behaviors related to speeding and determine countermeasures to influence those behaviors

- *Objective 1: Determine human factors related to speeding*

GOAL 3: Research and evaluate countermeasures, technology, and design factors related to speed and safety

- Objective 1: Determine non-infrastructure countermeasures to influence driving behaviors
- Objective 2: Evaluate the safety benefits of safe and reasonable speed limits
- Objective 3: Determine appropriate speeds on curves
- Objective 4: Test and evaluate the implementation of Intelligent Transportation Safety technologies and engineering countermeasures for speed management
- Objective 5: Research and evaluate countermeasures related to heavy trucks and commercial vehicles

Focus Area C: Technology

GOAL: Promote the integration and use of technology for achieving safe and reasonable driving speeds

- Objective 1: Promote the safety-focused use of Speed Enforcement technology
- Objective 2: Promote the use of Intelligent Transportation Systems technologies to ensure safe travel speeds

Focus Area D: Enforcement and Adjudication

GOAL: To affect a change in law enforcement, judicial, and public perceptions of lower thresholds for speed enforcement in conjunction with communications strategies that emphasize the dangers of speeding

- Objective 1: Promote safety-focused and publicly acceptable speed enforcement activities
- Objective 2: Promote the use of scientifically valid speed measurement technology for enforcement
- Objective 3: Establish RADAR and LIDAR performance and maintenance standards through National Institute of Standards and Technology and the Enforcement Technology Advisory Technical Subcommittee
- Objective 4: Develop and implement relevant training for law enforcement
- Objective 5: Provide education to judges and prosecutors

Focus Area E: Engineering

GOAL: Identify and promote engineering measures to better manage speed

- *Objective 1: Engineer safe and reasonable speed limits*
- *Objective 2: Facilitate design of self-enforcing roads*
- *Objective 3: Address speed on curves*
- Objective 4: Promote the implementation of ITS technologies and engineering countermeasures for speed management

Objective 5:

- Integrate speed management into FHWA safety programs that focus on roadway departure, intersections, and pedestrian crashes

Focus Area F: Education & Communications

GOAL 1: To increase public awareness and recognition of the risks and hazards associated with speeding

- *Objective 1: Develop a national communications strategy.*

GOAL 2: To establish the DOT as an authoritative source for information related to speed management through the development and implementation of a unified communications plan

- Objective 1: To develop an education and outreach plan that supports the Department's Speed Management Program Plan.



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