

Uniform Guidelines *for* State Highway Safety Programs



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Highway Safety Program Guideline No. 19

Speed Management

Each State, in cooperation with its political subdivisions, tribal governments and other parties as appropriate, should develop and implement a comprehensive highway safety program reflective of State demographics to achieve a significant reduction in traffic crashes, fatalities, and injuries on public roads. The highway safety program should include a comprehensive speed management program that encourages people to voluntarily comply with speed limits. This guideline describes the components that a State speed management program should contain and the criteria that the program components should meet.

Speed management involves a balanced program effort that includes: defining the relationship between speed, speeding, and safety; applying road design and engineering measures to obtain appropriate speeds; setting speed limits that are safe and reasonable; applying enforcement efforts and appropriate technology that effectively address speeders and deter speeding; marketing communication and educational messages that focus on high-risk drivers; and soliciting the cooperation, support, and leadership of traffic safety stakeholders.

I. PROGRAM MANAGEMENT

While speeding is a national problem, effective solutions must be applied locally. The success of a speed management program is enhanced by coordination and cooperation among the engineering, enforcement, and educational disciplines. To reduce speeding-related fatalities, injuries, and crashes, State, local, or tribal governments should:

- Provide the NHTSA Speed Management Workshop that offers a comprehensive approach to speed management through partnering with a broad range of transportation and safety disciplines. This multidisciplinary team improves communication and cooperation and facilitates the development of innovative strategies for reducing speeding-related fatalities and injuries.
- Establish a Speed Management Working Group as outlined in the *Speed Management Workshop Guidelines* to develop and implement a localized action plan that identifies specific speeding and speeding-related crash problems and the actions necessary to address problems and to establish the credibility of posted speed limits.

The action plan should:

- Galvanize a localized effort and identify specific actions to be taken to effectively address managing speed and reducing speeding-related crash risks;
- Address how to effectively overcome institutional and jurisdictional barriers to setting appropriate speed limits and enforcement practices;
- Address how to effectively coordinate with stakeholders across organizations and disciplines to improve support needed for establishing an effective speed management program; and
- Address how to effectively communicate and exchange information between the transportation disciplines and the public to reinforce the importance of setting and enforcing appropriate speed limits.

II. PROBLEM IDENTIFICATION

The relationship between speed limits, travel speeds, and speed differential are the defining components of speed management as a highway safety issue. Speed increases crash severity; however, crash probability resulting from speed and speed differential is not clearly defined. Data collection and analysis is required to identify and develop countermeasures and awareness initiatives that lead to appropriate modifications in driver behavior. To achieve this goal, States should assist Speed Management Working Groups in making appropriate decisions about resource allocation. Each State should provide leadership, training, and technical assistance to:

- Monitor and report travel speed trends across the entire localized road network;
- Identify local road segments where excessive and inappropriate vehicle speeds contribute to speeding-related crashes;
- Monitor the effects on vehicle speeds and crash risk of setting appropriate speed limits; and
- Coordinate, monitor, and evaluate the short- and long-term effect of State legislative and local ordinance changes that establish appropriate speed laws and posted speed limits on mobility and safety.

III. ENGINEERING COUNTERMEASURES

The establishment of appropriate speed limits facilitates voluntary public compliance and is the cornerstone for effective speed management. Speed management techniques and technology can be engineered into the existing highway system or incorporated into the Intelligent Transportation System to improve voluntary compliance with speed limits and prevent speeding. The State should aid established Speed Management Working Groups by providing the leadership, training, and technical assistance necessary to:

- Comply with the Manual on Uniform Traffic Control Devices guidelines to establish appropriate speed limits;
- Provide a computer-based expert software system speed zone advisor to set credible, safe, and consistent speed limits;

- Train traffic engineers in the proper techniques to deploy speed-monitoring devices and conduct engineering studies for the purpose of establishing appropriate speed limits;
- Determine and apply the appropriate frequency for speed limit signs;
- Identify sites and applications where variable speed limit signs can reinforce appropriate speed limits for prevailing conditions;
- Identify and apply appropriate traffic-calming techniques for reducing speed in pedestrian and bicyclist activity areas;
- Employ speed-activated roadside displays that warn drivers exceeding safe speeds based on roadway curve geometry, pavement friction and/or vehicle characteristics; and
- Promote the application of onboard vehicle and communication technologies that prevent drivers from exceeding safe speeds, including adaptive cruise control, vehicle limit sensing and feedback, driver control speed limiters, wireless roadside beacons, vehicle infrastructure integrated safety systems, and stability control systems.

IV. COMMUNICATION PROGRAM

Communication strategies, accompanied by enforcement, can modify driver behavior. Communication programs should be developed to ensure motorist acceptance and to enhance compliance with the introduction of revised speed limits and strict enforcement operations. Communication programs and materials should be cultural relevant and multilingual as appropriate. If the public is not aware of, or does not understand, the potential consequences of speeding to themselves and others, they are unlikely to adjust speeds for traffic and weather conditions, or to comply with posted speed limits. The State should aid established Speed Management Working Groups by providing the leadership, training, and technical assistance necessary to:

- Develop and evaluate culturally relevant public awareness campaigns to educate drivers on the importance of obeying speed limits and the potential consequences of speeding;
- Use market research to identify and clearly understand how, when, and where to reach high-risk drivers;
- Develop a strategy to educate the public about why and how speed limits are set;
- Capitalize on special enforcement activities or events such as saturation patrols and sobriety checkpoints, impaired driving crackdowns, occupant protection mobilizations, and other highly publicized sustained enforcement activities;
- Identify and collaboratively support efforts of highway safety partners, traffic safety stakeholders, and the health and medical communities to include speed management as a priority safety, economic, and public health issue; and
- Promote responsible driver behavior and speed compliance in advertising.

V. ENFORCEMENT COUNTERMEASURES

Enforcement is critical to achieve compliance with speed limits. More than half of all traffic stops result from speeding violations, and public support for speed enforcement activities depends on the confidence of the public that speed enforcement is fair, rational, and motivated by safety concerns. The State should provide the leadership, training, and technical assistance necessary to:

- Support speed enforcement operations that:
 - Compliment a comprehensive speed management program including traffic engineering, enforcement, judiciary, and public support;
 - Strategically address speeders, locations, and conditions most common or most hazardous in speeding-related crashes; and
 - Support the national commercial motor vehicle safety enforcement program;
- Integrate speed enforcement into related highway safety and priority enforcement activities such as impaired driving prevention, safety belt use, motorcycle rider training, and other injury control activities;
- Provide speed enforcement guidelines that promote driver compliance with appropriately set speed limits;
- Coordinate speed enforcement programs with educational and media communication activities;
- Ensure the accuracy and reliability of speed-measuring devices used during speed enforcement operations through compliance with the appropriate performance specifications and established testing protocols;
- Ensure the knowledge, skills, and abilities of law enforcement officers involved in speed enforcement activities through comprehensive speed management training and appropriate speed-measuring device operator training programs; and
- Promote the proper use of automated speed enforcement programs, application of automated speed enforcement technologies, and compliance with automated speed enforcement implementation guidelines designed to deter speeding effectively and to prohibit revenue generation beyond reasonable operational cost.

VI. LEGISLATION, REGULATION AND POLICY

A key component of a successful speed management program is consistent, effective public policy to support speed management strategies and countermeasures. Traffic court judges, prosecutors, safety organizations, health professionals, lawmakers, and policy makers have a stake in establishing the legitimacy of speed limits and effectively managing speed to reduce injuries and fatalities. The support and leadership of traffic court judges and prosecutors is essential to ensure that speeding violations are treated seriously and consistently. Safety goals can only be achieved through the leadership of local authorities who are responsible for implementing most speed management measures. Each State should aid established Speed Management Working Groups by providing the leadership, training, and technical assistance necessary to:

- Promote speed management as a public policy priority;

- Create a network of key partners to carry the speed management message and leverage their resources to extend the reach and frequency of a speed management communication program;
- Target speed management initiatives at sites and on highways that offer the greatest opportunity for making a significant reduction in speeding-related crashes;
- Provide speed management program information and training opportunities for traffic court judges and prosecutors that outline the negative effects of speeding on the quality of life in their communities;
- Provide sentencing guidelines to ensure and promote consistent treatment of violators in order to defuse any public perception that speed limits are arbitrary or capricious; and
- Promote and provide speed management workshops within communities to enhance communications and support for the implementation of a comprehensive, balanced, and effective speed management program.

VII. DATA AND EVALUATION

An evaluation component is a critical element of any speed management program. The evaluation design should measure the impact and effectiveness of a comprehensive speed management program on traffic fatalities, injuries, and crashes, and provide information for future program revisions, improvement, and planning. The State should aid established Speed Management Working Groups by providing the leadership, training, and technical assistance necessary to:

- Include an evaluation component in the initial program planning efforts to ensure that data will be available and that sufficient resources will be allocated;
- Provide reports regularly to a Speed Management Working Group, project, and program managers; law enforcement commanders and officers; transportation engineers; members of the highway safety, health, and medical communities; public and private sectors; and other traffic safety stakeholders;
- Use evaluation results to verify problem identification, guide future speed management activities, and assist in justifying resources to legislative bodies;
- Conduct surveys to determine program effectiveness and public knowledge and attitudes about the speed management program;
- Analyze speed compliance and speeding-related crashes in areas with actual hazards to the public;
- Evaluate the effectiveness of speed management activities provided in relation to other priority traffic safety areas; and
- Maintain and report traffic data to the SHSO and other appropriate repositories, including the *FBI Uniform Crime Reports*, FMCSA's SAFETYNET system, and annual statewide reports.