

National Forum on ***SPEEDING***


Strategies for Reducing Speeding-Related Fatalities & Injuries

Center, National Academies Building
Washington, DC

June
15-16,
2005
Keck

SUMMARY REPORT

August 2005

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Introduction

Speeding is a contributing factor in about one-third of all fatal traffic crashes in the United States and costs society an estimated \$40 billion annually.¹ Speeding dilutes the effectiveness of other priority traffic safety programs, including efforts to reduce impaired driving, increase safety belt use, and improve pedestrian and motorcycle safety. Speeding and speed-related crashes occur on all road types, from limited-access divided highways to local streets. Drivers speed in all types of vehicles. Speeding is a local, State, and national problem. Reducing speeding will require concentrated and coordinated engineering, education, and enforcement efforts by all levels of government and by many private sector organizations.

In response to this safety problem, a National Forum on Speeding was held in Washington, DC, on June 15-16, 2005. The forum was sponsored by the American Association of State highway and Transportation Officials (AASHTO), the Federal Highway Administration (FHWA), the Federal Motor Carrier Safety Administration (FMCSA), the Governors Highway Safety Association (GHSA), the Institute of Transportation Engineers (ITE), the Insurance Institute for Highway Safety (IIHS), the International Association of Chiefs of Police (IACP), and the National Highway Traffic Safety Administration (NHTSA). The Transportation Research Board (TRB) hosted the meeting. The invitation-only working meeting had three goals:

- 1) Identify effective strategies for reducing speeding-related fatalities and injuries.
- 2) Coordinate Federal, State, local, and private sector speeding-related policies and programs.
- 3) Identify additional needed data and research.

The meeting began with presentations on speed issues in the United States and speed management programs in Australia, Canada, and the Netherlands. Participants then met in breakout groups to identify, discuss, and recommend safety countermeasure strategies, policies, and research needed to address the speeding problem. All participants then met together to draft a consensus action agenda.

This report summarizes the forum's discussions, recommendations, and the action agenda developed by forum participants. After a brief background section, the report describes the action agenda and includes comments and discussion from the breakout and general sessions. This is followed by a list of other issues mentioned in the breakout sessions. Many of these may be worthy of inclusion in the action agenda, but the limited time available for discussion at the forum did not permit them to be fully considered. Short summaries of the eight invited presentations follow. Full PowerPoint presentations are available on NHTSA's website.² The forum agenda and participant list are included as Appendices.

The forum's major conclusion, supported vigorously by all participants, is that speeding is a critical highway safety issue that requires and deserves high priority and adequate resources. The Forum participants unanimously recommended that a smaller coordinating group, representing all key stakeholders, be appointed to follow up on the forum's action agenda and to provide additional detail where needed on the forum's recommendations. The forum's sponsors agreed to provide opportunities for further communication among the participants.

¹ National Center for Statistics and Analysis (2004). *Traffic Safety Facts: Speeding*. DOT HS 809 771. Washington, DC: U.S. Department of Transportation. www.nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2003/809771.pdf

² www.nhtsa.dot.gov/people/injury/enforce/Speed_Forum_Presentations/index.htm

The statements and conclusions in this report are the collective views of the forum's individual participants. With the exception of the unanimous conclusion and recommendation above, they do not necessarily represent the views of any participant. The statements and conclusions in this report do not necessarily represent the views of any organization that sponsored or participated in the forum.

Background

Speeding is commonly defined as exceeding the posted speed limit or driving too fast for conditions. All United States roads have a speed limit. General State and municipal speed limits apply to all roads in a class, such as rural interstates or local streets. States and municipalities may establish speed zones with their own speed limits on road segments where the general speed limit is thought to be inappropriate. Drivers generally believe they will not be ticketed for speeds less than 5 or sometimes 10 mph over the posted limit.³

Speeding is common, and on some roads almost universal. About 80 percent of all drivers in NHTSA's 2002 national survey reported they exceeded the posted speed limit on each type of road - interstate, non-interstate multi-lane, two-lane, and city streets - within the past month, and about one-third reported this behavior on the day of the interview. One-third of all drivers reported that they often or sometimes drive at least 10 mph faster than most other vehicles. Yet two-thirds of drivers felt that other speeding drivers pose a major threat to their personal safety.⁴

NHTSA considers a crash to be speeding-related if a driver was charged with a speeding-related offense or if the investigating officer indicated that racing, driving too fast for conditions, or exceeding the posted speed was a contributing factor in the crash. Using this definition, NHTSA estimated that speeding was a contributing factor in 31 percent of fatal crashes in 2003 and speeding-related crashes claimed 13,380 lives.⁵ NHTSA's early traffic fatality estimates project about the same levels in 2004: 13,087 fatalities, or 31 percent of all traffic fatalities, involved speeding⁶.

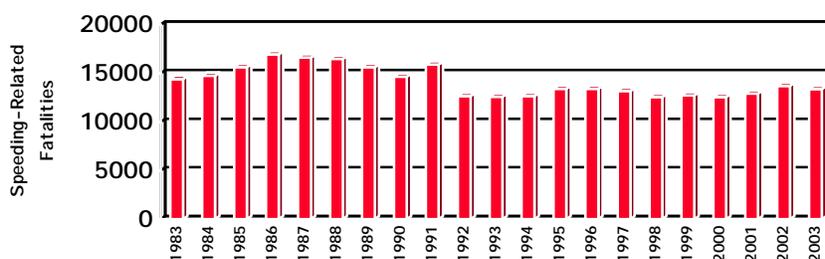
³ Governors Highway Safety Association (2005). Survey of the States: Speeding. www.statehighwaysafety.org/html/publications/pdf/surveystates2005/surveystates_speeding.pdf

⁴ R Compton (2005). Speeding: Who, When, Where. Presentation to the National Forum on Speeding, slides 27, 29, and 35. www.nhtsa.dot.gov/portal/site/nhtsa/menuitem.b667872a33dbc6bbbf30811060008a0c/

⁵ Compton, slides 3 and 4.

⁶ NHTSA (2005). Motor Vehicle Traffic Crash Fatalities and Injuries: 2004 Projections. DOT HS 809 862. www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/PPT/2004EARRelease.pdf

Speeding-related Traffic Fatalities, 1983-2003⁷



Speeding can be dangerous on all roads. In 2003, half of the speed-related traffic fatalities occurred on roads posted at 50 mph or less and one-quarter occurred on roads posted at 35 mph or less.⁸

Speeding affects both the probability of a crash and the severity of injuries produced by a crash. Some research documents indicate three effects of speed on crashes and injuries. First, the probability of a crash increases substantially as a vehicle's travel speed increases.⁹ Other research indicates, the probability of a crash increases as a vehicle's travel speed rises above or falls below the average travel.¹⁰ Third, in a crash, injury severity is proportional to the impact forces on a person, which in turn are related to the square of the change in speed.

Action Agenda

Forum participants reached consensus on a seven-step action agenda.

1. Raise the priority of speeding as a traffic safety issue.

Speeding is not generally understood as a high priority traffic safety issue, even though speeding contributes to one-third of all traffic fatalities. Participants agreed that raising the priority of speeding is perhaps the most important step that can be taken and is critical to achieving the other action agenda recommendations.

Three necessary components are to:

- clearly define the speeding problem, beginning with a working definition of “speeding” that all can understand and accept;
- clearly identify the risks and costs of speeding; and
- show grass roots support for controlling speeding.

⁷ Compton, slide 5.

⁸ Compton, slide 22; NHTSA (2005), Traffic Safety Facts 2003. DOT HS 809 775. www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSFAnn/TSF2003.pdf.

⁹ S Ferguson (2005). Relation of Speed and Speed Limits to Crashes. Presentation to the National Forum on Speeding, slides 10-11. www.nhtsa.dot.gov/portal/site/nhtsa/menuitem.b667872a33dbc6bbbf30811060008a0c/

¹⁰ Ferguson, slides 3-11.

Raising the priority of the speeding issue with the general public will require the following:

- agreeing on a clear definition of speeding.
- convincing the public that speeding is a problem, and that speeding-related crashes are avoidable.
- overcoming public resistance, since “everyone speeds” and many drivers believe that they will not be ticketed for speeding unless they exceed the posted speed limit by 5 or even 10 mph.
- marketing speeding as a serious social problem using well-designed messages. Message points to consider include:
 - beginning by addressing speeding on local roads and streets; building on the common public concern for local traffic issues, especially speeding;
 - personalizing speeding-related crashes, as Melbourne, Australia, has done so effectively; and
 - show how speeding can injure pedestrians and other vulnerable road users.

Raising the priority of the speeding issue also requires support from elected government officials.

- Politicians listen to the “loudest” issues, so grass roots support is critical.
- Good data and studies on the consequences of speeding, the costs of speeding-related injuries and fatalities, and the effectiveness of speeding countermeasures are essential. The data and results must be presented in an easily-understood form.
- Marketing speeding to the political leadership as a serious social problem, just as it is marketed to the general public. Consider the methods used to market alcohol-impaired driving and safety belt use. Look for allies among people who wish to reduce speeding, such as parents of small children, retirees, and baby boomers. Convince political leadership that statutory speed limits are a method for improving highway safety, not a political issue.
- Consider demonstration programs to reduce speeding in local areas where the political leadership is receptive.

2. Set and achieve goals

Based on their data, States and communities should set goals that specifically address their identified problem. The basic goal is to reduce speeding-related crashes, injuries, and fatalities. It can be approached in two ways: by targeting the “extreme speeders” who drive well above the median travel speeds, or by targeting the entire driving population and reducing all travel speeds (“shift the speed distribution to the left”), as Melbourne, Australia, has done (see Ian Johnston’s presentation). The two strategies are not disjoint, and both may be long-term goals. In the short term, specific situations may suggest which goal is more appropriate.

- Controlling extreme speeders is likely to be supported on roadways where there is a wide range of travel speeds.
- Reducing all travel speeds is likely to be supported in specific high-risk areas such as schools and work zones.

3. Improve speed-related data and research

In order to maximize the effectiveness of a speeding reduction strategy, practitioners need good data to define the problem and its consequences and to evaluate countermeasures. Two types of data are needed:

- Travel speed data. This data have not been collected and reported consistently since repeal of the National Maximum Speed Limit. Travel speed data is in fact collected in many ways in various places, for example at red light cameras and in urban areas where traffic flow is monitored closely. A system to aggregate and report this data should be developed. The MMUCC provides model data guidelines. If necessary, a national travel speed sampling system could be designed and implemented for less than \$1 million.
- Crash data with accurate speed information. Crash data is needed to link speeding to injuries and injury costs, to determine the true role of speed and speeding in causing crashes, and to determine how crash risk increases as speed increases. Speed data cannot be limited to fatal crashes but must be collected for injury crashes and, if possible, for at least some non-injury crashes. Accurate pre-crash travel speed data is not easy to acquire. Current electronic data recorders give only the velocity change at impact, not the travel speed of the crashed vehicles. The travel speeds of other vehicles on the roadway at the time of the crash are even more elusive. Some commercial vehicles may be able to use GPS systems to provide pre-crash speeds.

Both travel speed and speed-related crash data are needed at State and local levels, to accurately define State and local speeding problems. Keeping track of the public's perception of the speeding problem (through surveys) is also important.

Additional research is needed in three areas, all discussed in other sections of this report.

- Methods to acquire accurate speed data in crashes. Accurate speed data are needed to link individual crashes to speeding, determine the overall consequences of speeding-related crashes, and raise the priority of managing speeding with the public and with political leaders.
- Methods to educate the public on speeding-related issues. These include raising the priority of speeding as a social issue, the consequences of speeding, the effect of apparently small increases in travel speed on injury severity, and the rationale for speed limits. This will require market and communications research.
- Methods to use "smart" vehicle and highway technologies to manage speeds. As these technologies are implemented, they will be able to inform drivers of posted speed limits or of dangerous road conditions. They also will be able to limit driving speeds either absolutely, through fixed speed limiters, or on specific roadways.

4. Implement engineering strategies

Roadway design and engineering are the fundamental determinants of travel speeds. If a roadway is designed for high speeds -- a multilane, divided, limited-access highway with few hills or curves -- then travel speeds will be high regardless of enforcement and education measures to control speeds. On the other hand, speeds on a narrow, two-lane, winding village street will be low. Both short-term and long-term roadway design and engineering strategies can be used to manage travel speeds, as is done in the Netherlands (see Fred Wegman's presentation below).

- Short-term engineering measures include:
 - Speed humps or roundabouts on local streets;
 - Transitional signing at speed zone boundaries;
 - Pavement markings and roadside elements to provide visual cues that encourage slower speeds;
 - Better signal timing, to convince drivers that they will keep moving if they drive at or under the speed limit, while speeding only gets them to the next red light faster (a win-win design, since safe speeds equate to faster travel times); perhaps changing signal timing on weekends and evenings.
- Longer-term measures should be based on designing roadways with safe speeds in mind from the outset, rather than attempting to manage speeds once the roadway is built (as an example of practices to avoid, many new subdivisions have wide, straight streets that encourage drivers to speed through residential areas with many small children).
- Speed limits consistent with the roadway's design and use (so that the roadway is "self-explaining" and the safe travel speed is apparent to drivers). Variable speed limits may be useful to adapt limits to varying road conditions.

The forum did not consider vehicle design and marketing issues but agreed that they are an important part of a comprehensive strategy to reduce speeding. Many vehicles are designed for speeds well in excess of any United States speed limit. Speedometers register speeds well above 100 mph. Vehicle advertising promotes high speeds. None of these practices helps manage travel speeds.

5. Implement enforcement strategies

Speed enforcement must begin with reasonable speed limits that the public understands and accepts. These will require:

- Public education on the rationale for setting speed limits, explaining that they are set to balance safety and mobility and are not set arbitrarily or to generate revenue through speeding tickets. Public education may require social psychologists and market researchers to develop effective messages, and perhaps even to overcome an apparent "decline in deference" and reduced concern for others in traffic and in society generally.

Speed enforcement then is the primary responsibility of states and communities. Effective speed enforcement must have:

- A high priority with law enforcement, since increased speed enforcement requires law enforcement resources.
- Vigorous and effective publicity. As with other traffic safety laws and regulations, the goal is not to detect and punish speeders but to deter speeding in the first place.
- The active cooperation of prosecutors and judges. The courts must understand and support the speed limits, or else speeding offenses will be dismissed. Increased speed enforcement may affect court caseloads, so the courts must be consulted in advance.
- A clear understanding by law enforcement, the courts, and the driving public of the “enforcement tolerance” above the speed limit: the speed at which citations will be issued and prosecuted. Complete “zero tolerance” enforcement probably is not feasible. A “margin of error for equipment” may be a reasonable definition that all can accept.

Automated speed enforcement using speed cameras is used successfully in many other countries and in a few U.S. jurisdictions. While a promising technique, it must be used carefully, in selected areas, as part of a comprehensive program to reduce speeding and not a stand-alone tool. Automated speed enforcement must consider:

- Political realities: it generates controversy on grounds of government intrusiveness and individual privacy. It requires strong political support. Red-light-running cameras typically are supported more strongly than speed cameras and may be a useful first step (and red-light cameras help control speeds by reducing the tendency to speed through an intersection to avoid a red light).
- Where to use: in areas with well-documented speeding and speed-related crash problems, and in areas such as school zones where public support is especially strong. The posted speed limit must be reasonable and must be accepted by the public.
- Legal requirements: State laws explicitly allowing speed cameras are useful, but blanket statewide legislation may be hard to enact. If blanket legislation is not feasible, legislation for specific areas such as school and work zones may be possible.
- Public acceptance: speed camera enforcement must be thoroughly justified and explained with good media, social marketing, and signage. It must be justified as a method to improve public safety, not a revenue generator. It must be part of a comprehensive speed management program.

Automated speed camera tickets are issued administratively so that they do not impact the courts. On the other hand, automated speed cameras may not be as effective in changing behavior as in-person enforcement by an officer, since speed camera citations are received days or weeks after the offense while officer-issued citations provide very immediate feedback.

D.C. officials indicate that the speed-camera enforcement program in the District of Columbia features:

- reasonable and believable speed limits;
- tickets issued by an officer using a mobile camera unit;
- fine revenue allocated directly to speed control;
- tickets issued to the registered vehicle owner, not the driver; and
- a link to DC’s comprehensive traffic safety program.

Speed-camera enforcement has reduced both average and excessive speeds substantially at camera locations. Systemwide effects on speeds are being evaluated.

6. Implement education strategies

Education is essential for gaining public and political support for a program to reduce speeding and also is critical for the engineering and enforcement components of such a program. Stand-alone education is not an effective strategy: Admonitions to slow down and obey the speed limit can be expected to have little or no effect.

7. Consider longer-term strategies

While the forum did not concentrate on longer-term strategies, several approaches were suggested and discussed. It is important to keep in mind that reducing speeding-related fatalities and injuries, not merely reducing speeds, must be the goal.

- Speed limiters for commercial vehicles: All large trucks and buses built in the last 10 years can be speed-limited. Most large truck fleets, accounting for perhaps 90 percent of the interstate trucking, limit speeds at 62-65 mph for safety and fuel economy. Few buses are speed-limited. It may be time to consider a national speed-limiting policy for commercial vehicles.
- Smart-vehicle technologies and GPS locators could be used in the future to transmit speed limit and road condition information for each road segment to vehicles and even to limit vehicle speeds.
- Speed-limit reductions, along with other measures, could be helpful in reducing overall travel speeds within a geographic area. The considerations discussed previously clearly apply: speed limit reductions would need broad public support; clear justification as a means to address well-defined problems, perhaps beginning in school or work zones or residential areas; political support; careful marketing; and active enforcement.
- Improved road design, to incorporate desired travel speeds early in the design process.

Implementation

Forum participants agreed that serious measures to reduce speeding require cooperative efforts across the disciplines of engineering, enforcement, and education, and across organizations - local, State, and Federal governments, private sector; all the organizations represented at the forum and others that were not able to attend. Many specific strategies require cooperative partnerships to plan and implement.

Forum participants also agreed that the day-and-a-half forum was far too short. While it produced broad agreement on general goals, principles, and strategies, it did not allow time for any specific activities to be developed and discussed. As a result, participants agreed that a smaller follow-up group, representing key organizations, should be created to define and oversee specific activities to implement this action agenda. FHWA, FMCSA, GHSA, and NHTSA agreed to take the lead in assembling and supporting follow-up communications on these issues with forum participants.

Other Issues Discussed

The following points were mentioned in the forum breakouts but not discussed at length.

- Elevate speeding to a national priority at the same level as reducing alcohol-impaired driving and increasing safety belt use.
- Consider methods to sustain the effect of speed enforcement and marketing strategies over time.
- Include public health organizations in efforts to manage speeding.
- Cooperate with employers to help manage their employees' speeding through workplace policies and education; encourage lower speeds for both safety and fuel efficiency.
- Integrate speeding issues into other education and enforcement programs.
- Expand graduated driver licensing requirements to include a restriction on driving on high-speed roads, as is done in some other countries.
- Increase the emphasis on speeding and its consequences in driver education classes.
- Increase penalties for speed violations, perhaps in specific high-risk areas such as school and work zones.
- Consider speed limiters for the vehicles of repeat speeding offenders.
- Share speed violation information between States, to better identify repeat offenders.
- Increase vehicle registration fees for high horsepower vehicles.

Invited Presentations

All PowerPoint presentations are available on the NHTSA Web site, www.nhtsa.dot.gov.

Speeding: Who, When, Where

Richard Compton, Director, Office of Research and Technology, NHTSA.

Compton presented summary data on speeding-related fatal crashes from NHTSA's FARS and on self-reported attitudes and behaviors from a 2002 NHTSA national telephone survey. Key points included:

- Speeding-related traffic fatalities have remained essentially unchanged since 1992, accounting for about one-third of traffic fatalities and about 13,000 lives annually.
- Speeding-related traffic fatalities occur on all road types, though the crash rate per mile of travel is highest on local roads.
- Young drivers, especially males, are over-involved in speeding-related traffic fatalities.
- Speeding drivers in fatal crashes had been drinking more frequently and use safety belts less frequently than non-speeding drivers.
- In interviews, most drivers reported speeding within the past month, on all types of roads.
- Almost all drivers reported that they felt threatened by other speeding drivers.

Relation of Speed and Speed Limits to Crashes

Susan Ferguson, Senior Vice President for Research, IIHS

Ferguson discussed the research findings on the relation of speed to crashes and crash severity; the relation of speed limit changes to speed and crashes; and characteristics of excessive speeders. Key points included:

- Crash rates are lowest for drivers traveling near the mean speed and are higher for drivers traveling above or below the mean speed. Below average speeds are often unavoidable due to traffic conditions or vehicles slowing to turn or merge.
- As crash speeds increase, the risk of injury and fatality increases exponentially, since the energy released in a crash is proportional to the square of the impact speed.
- The majority of evidence from the National Maximum Speed Limit suggests that reductions in speed limits reduce vehicle speed and crashes while increases in speed limits increase speeds and crashes.
- Excessive speeders are more likely to be male, younger, and have poor driving records.

Canadian Speed Management Overview

James G. White, Engineering Advisor, Road Safety and Motor Vehicle Regulation, Transport Canada

White reviewed Canadian speed management policies, programs, and research. Key points included:

- Canada's Road Safety Vision has a goal of reducing speed-related crashes by 20 percent by 2010 from the 1996-2001 baseline.
- Canada's four core speed management strategies are:
 - Driver education and awareness of speed risks;
 - Research on best practices for enforcement and for driver education and motivation;

- Infrastructure improvements including national speed limit standards and consistent national crash data;
- Optimizing the use of enforcement resources and coordinating with education and infrastructure improvements.
- A 1997 Canadian review of speed research concluded that:
 - Speed limit changes have little effect on travel speed or safety;
 - Drivers select travel speeds based on physical cues of the road environment;
 - Speed enforcement effects are short-lived;
 - A multi-disciplinary approach is needed to affect travel speeds.
- Longer-term research is ongoing with Adaptive Cruise Control (ACC) and Intelligent Speed Adaptation (ISA).

OECD Speed Management Working Group Status Report

James G. White, Engineering Advisor, Road Safety and Motor Vehicle Regulation, Transport Canada

White summarized the operations of the OECD Speed Management Working Group, established in January 2004. Nineteen countries, including the United States and Canada, are participating. The Working Group's goals are to:

- Review current knowledge about the effects of speed;
- Examine current best practices and promising research on speed management methods;
- Define a global approach to speed management.

The group has collected and summarized information from participating countries on their speed limits, actual speeds, speed effects, speed management measures, and research. The final report is scheduled for release in early 2006. Further information is available at www1.oecd.org/cen/JTRC/.

Speed Management “Down Under”

Ian Johnston, Director, Monash University Accident Research Centre

Johnston described the comprehensive urban speed management program introduced in the Melbourne metropolitan area, Victoria, Australia, in January 2001. The program's goal was to “shift the entire speed distribution to the left” and reduce speeds across the board. It included:

- Reduced general speed limits in urban areas from 60 to 50 km/h;
- A progressive increase in speed enforcement through greater use of unobtrusive speed cameras and an increase in speed-camera intensity from 4,000 to 6,000 camera-hours per month (or one ticket annually for every three Victoria drivers);
- A progressive reduction in the enforcement tolerance to 3 km/h above the speed limit; and
- Intense public education using vivid, hard-hitting television spots.

Program results included:

- Mean travel speeds dropped about 3.5 km/h on 60, 70 and 80 km/h speed limit roads;
- 85th percentile speeds dropped about 4 km/h on all roads; and
- Traffic fatalities in Melbourne dropped from 435 annually in 1999-2000 to 307 annually in 2003-2004, with the greatest reduction among non-occupant fatalities.

In contrast, neither speeds nor traffic fatalities changed significantly over this period on rural roads in the rest of Victoria. Johnston concluded that a systematic, integrated program targeting all drivers can reduce travel speeds and speed-related casualties.

Speed Management in the Netherlands

Fred Wegman, Managing Director, SWOV Institute for Road Safety Research, The Netherlands.

Wegman described how the Netherlands incorporates speed management as an integral and prominent component of road safety policy. Key points included:

- Speed management begins with engineering methods, supported by enforcement and education.
- The three engineering principles are:
 - Functionality: a small number of road functional categories;
 - Homogeneity: eliminate large differences in the speed, mass, and direction of vehicles on a roadway;
 - Predictability: provide easy recognition of road function and design among road users.
- Engineering measures include speed zones (in which all roads within a geographic area have the same speed limit -- for example, 30 km/h in built-up areas) and roundabouts and speed humps at intersections.
- Enforcement measures include increasing use of unobtrusive speed cameras in police cars and an increasing number of “automated section controls” on motorways and major rural roads.
- These measures have general, but far from complete, public support.

U.S. Department of Transportation Speed Management Team

Earl Hardy, Highway Safety Specialist, NHTSA, and Davey Warren, Co-Team Leader, USDOT Speed Management Team, FHWA

Hardy and Warren briefly summarized the activities of the USDOT speed team and the USDOT Speed Management Strategic Initiative,¹¹ released on June 16, 2005, to coincide with the Speed Forum. The initiative takes a comprehensive approach. Its five objectives, each with key strategies and actions, are to:

- 1) Define the relationship between travel speed and traffic safety;
- 2) Identify and promote engineering measures to better manage speed;
- 3) Increase awareness of the dangers of speeding;
- 4) Identify and promote effective speed enforcement activities; and
- 5) Solicit cooperation, support, and leadership from traffic safety stakeholders.

¹¹ U.S. Department of Transportation Speed Management Strategic Initiative (June 2005). www.nhtsa.dot.gov/people/injury/enforce/DOTSpeedManagementStrategicInitiative.pdf

Speed on Roadway Segments

Kay Fitzpatrick, Research Engineer, Texas Transportation Institute

Fitzpatrick explained the meaning of and the factors that influence a road segment's design speed, posted speed limit, and operating speeds. Key points included:

- Horizontal curves have the greatest influence on design speed.
- Posted speed limits typically are set by starting with the 85th percentile speed and then taking into account (in order of importance) political pressure, crash history, roadside development, and roadway geometry.
- On rural roads, 37-72 percent of traffic obeys the speed limit and the 85th percentile speed exceeds the posted limit.
- On suburban and urban roads, only 32-52 percent of traffic obeys the speed limit and the 85th percentile speed exceeds the speed limit by almost 10 mph.
- Environmental factors that influence operating speeds include horizontal curves, roadway access, parking, pedestrian activity, and roadway markings.

Speed Management and Engineering-Related Issues

John M. Mason, Jr., Associate Dean and Interim Director, The Pennsylvania Transportation Institute, Penn State University

Mason discussed engineering methods to manage speed. He summarized conclusions from the TRB Special Report 254, Managing Speed, to the effect that the current practice of setting speed limits was a reasonable balance between speeds and risks under favorable operating conditions and that speed limits in speed zones should be based on an engineering study. He elaborated on the concept of a roadway's design speed, concluding that, "It is not customary U.S. practice to predict operating speeds as part of the highway geometric design process." This leads to dilemmas, as operating speeds often exceed design speeds.

National Forum on *SPEEDING*



Strategies for Reducing Speeding-Related Fatalities & Injuries
June 15-16, 2005

National Academies Building
500 Fifth Street NW., Washington, DC
Keck Center, Room 100

AGENDA

Objective: To convene key leaders at the International, Federal, State and Local levels and private sector to: (1) identify effective strategies for reducing speeding-related fatalities and injuries; (2) coordinate speeding-related policies and programs of the various levels of government and the private sector; and (3) identify additional research, data and programs to be undertaken. The focus of the discussion will include all types of vehicles – automobiles, motorcycles, and commercial trucks.

WEDNESDAY, JUNE 15, 2005

8 a.m. – 8:30 a.m. Registration & Continental Breakfast

8:30 a.m. – 9 a.m. Welcome, Review of Meeting Objectives, Administration Perspectives

Facilitator Jim Hedlund, Principal
Highway Safety North
Ithaca, NY

Moderator Jim Champagne, Chair
Chair, GHSA
Exec. Dir., Louisiana Highway Safety Commission
Baton Rouge, LA

Speakers Frederick "Bud" Wright, Executive Director
FHWA
Washington, DC

John Hill, Chief Safety Officer and Assistant Administrator, FMCSA
Washington DC

9 a.m. – 10 a.m. Update on Trends in Speeding-Related Fatalities and Speeding-Related Research

Moderator Thomas Hicks, State Traffic Engineer
Maryland State Highway Administration
Hanover, MD

Speakers Richard Compton, Director
Office of Research and Technology, NHTSA
Washington, DC

Susan Ferguson, Senior Vice President for Research
Insurance Institute for Highway Safety (IIHS)
Arlington, VA

10 a.m. – 10:15 a.m. BREAK

10:15 a.m. – 11:30 a.m. Overview of International Experiences with Speeding-Related Programs

Moderator Richard Retting, Senior Transportation Engineer
Insurance Institute for Highway Safety (IIHS)
Arlington, VA

Speakers Jim White, Engineering Advisor
Road Safety and Motor Vehicle Regulation, Transport Canada
Ottawa, Canada

Ian Johnston, Director
Monash University Accident Research Centre
Victoria, Australia

Fred Wegman, Managing Director
SWOV Institute for Road Safety Research
The Netherlands

11:30 a.m. – 12:30 p.m. WORKING LUNCH

Overview of the DOT Speed Team Efforts

Speakers Earl Hardy, Highway Safety Specialist
NHTSA
Washington, DC

Davey Warren, Co-Team Leader
U.S. DOT Speed Management Team
FHWA
Washington, DC

12:30 p.m. – 1:40 p.m. Approaching the Speeding Problem Comprehensively

Moderator M.L. Brown, Commissioner
California Highway Patrol
Sacramento, CA

Speakers Kay Fitzpatrick, Research Engineer
Texas Transportation Institute (TTI)
College Station, TX

John Mason, Associate Dean and Interim Director
The Pennsylvania Transportation Institute, Penn State Univ. State College, PA

1:40 p.m. – 1:45 p.m. Charge to Participants

Facilitator Jim Hedlund, Principal
Highway Safety North
Ithaca, NY

1:45 p.m. – 2 p.m. BREAK

BREAKOUT SESSIONS

2 p.m. – 5 p.m. Discussion of Effective Countermeasures

Room 105 - Red Group
Room 109 - Blue Group
Room 110 - Green Group

5:15 p.m. – 6:30 p.m. RECEPTION
Atrium (located on 3rd Floor)

THURSDAY, JUNE 16, 2005

- 8 a.m. – 8:30 a.m. **Continental Breakfast**
- 8:30 a.m. – 1 a.m. **Breakout Group Report Outs and Discussion**
- Facilitator Jim Hedlund, Principal
 Highway Safety North
 Ithaca, NY
- 10 a.m. –10:30 a.m. **BREAK**
- 10:30 a.m. – 12 p.m. **Action Agenda Development**
- Facilitator Jim Hedlund, Principal
 Highway Safety North
 Ithaca, NY
- 12 p.m. – 12:30 p.m. **Conference Wrap Up**
- Moderator Barry Warhoftig, State Safety Engineer
 West Virginia Department of Transportation
 Charleston, WV
- Speaker Brian McLaughlin, Senior Associate Administrator
 Nat'l Highway Traffic Safety Administration (NHTSA)
 Washington DC
- 12:30 p.m. **ADJOURN**

National Forum on ***SPEEDING***


Strategies for Reducing Speeding-Related Fatalities & Injuries
June 15 -16, 2005

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