

2008-2013
SAFETY ACTION PLAN
Final Draft, December 2008

FRAMING THE ISSUE: TRANSPORTATION SAFETY

Introduction

At the ITE Executive Committee/Senior Staff retreat in April 2004, a recommendation emerged that ITE should consider “Safety” as a Mega Issue. Defining safety as a mega-issue means that ITE will devote a significant element of our annual work program to safety issues. Many ITE members are “doing safety” as part of the job responsibilities. ITE International and the ITE Districts, Sections and Chapters have had programs, resources and publications with safety content since ITE was established in 1930. A large part of a Professional Traffic Operations Engineer’s (PTOE) job is to explicitly consider safety in the planning, engineering design, operation and maintenance of surface transportation facilities.

There are many dimensions to the transportation safety issue and multiple roles that ITE can play in those issues. However, the IBOD recognized that it is not feasible for ITE as an association to be a leader in all areas at once. The deliberations of the IBOD were intended to focus ITE’s energies in the areas with the highest benefit to ITE members and where ITE contributions and leadership would be most worthwhile. Subject areas and roles that did not rise to the highest priority remain important to ITE and will be pursued as opportunities arise; however, the high priority areas are those where ITE will make a concerted effort to play a major role within the transportation community.

This Safety Action Plan becomes the overarching document with regard to safety within ITE. ITE Headquarters will continue to prepare an annual work program including a set of priorities to be completed in each calendar year. Our annual work program will be all-inclusive: it will include ITE Headquarters activities, Council-initiated activities, as well as efforts planned by our Districts, Sections and Chapters relative to Safety. Since ITE will be implementing the Knowledge-Based decision-making processes, we will always include (as an Appendix to the Safety Action Plan) a table that identifies the efforts and products of other organizations.

Results of the IBOD Consideration of Safety as an ITE Mega Issue

Table 1 shows the 2004 IBOD safety focus areas and priorities. Beginning in late 2007, ITE Staff and the Transportation Safety Council began to reassess the Safety Mega Issue safety areas, and completed this reassessment in 2008. Table 2 shows the reorganization of the safety focus areas and priorities, as recommended by the Transportation Safety Council Executive Committee. The safety focus areas shown in Table 2 provide aggregated domains and sub-domains so one can clearly see how the reorganization has taken place. The reorganized areas and priorities would focus ITE safety initiatives over the next five-year period (2008-2013).

The tables below organize the recommended key topics, the ITE role and the relative priorities. The intent is to maintain a high degree of attention on activities and projects (either volunteer or contractual) in the high priority areas particularly for the near-term (2008 and 2009). Other areas will be pursued as opportunities arise and as time and resources permit. These other areas may be focus areas in future years.

The rationale for the changes to the 2008 Plan is as follows:

- Based on the review of the 2004 safety focus areas, staff sees a mixing of micro and macro areas. For the purposes of the Safety Action Plan, the Plan should keep at a Macro-level.
- Based on the traffic fatalities that are occurring in the United States and internationally, ITE should direct its resources to areas where there are greatest problems. Attachment 3 provides an Excel Table showing 2006 US Fatalities stratified by a number of factors.

- A continually evolving understanding of the needs of the ITE membership, reflecting a desire to attract more individual member involvement in safety activities, as well as to strengthen the connection between HQ-level initiatives and District/Section activities.

Provider

- Form of Content should be drawn from informational reports, recommended practices, professional development, technical briefs, web sites, etc., within the primary domain or sub domains of each focus area. It is also recommended that the Clearinghouse role be dropped since this is, in essence, a function that can be included under a content item under Provider.
- Receipt of Content should be realized from its member(s) knowledge and experience, in high priority safety areas.
- Critical Choices and Influence: Does ITE want to have influence and respect within the industry on this domain or sub domain area? Is the content considered “leading edge” where ITE wants to position itself from a market standpoint?

Convener/Partner

- For the purposes of this Safety Action Plan (2008) recommends combining these two groups.
- From time to time, ITE staff, members and volunteers will be invited to participate on national stakeholder groups related to safety. The safety focus areas (domains and sub domains) may be within the High, Medium or Low priorities on the Safety Action Plan. The ITE Executive Director and Deputy Director will make HQ resource allocation decisions for internal staffing of stakeholder committees as required.
 - Example: Highway Safety Partner Venture: (Stollof/Caruso)
 - Example: AASHTO Standing Committee on Highway Traffic Safety (Stollof)
 - Example: TRB Intersection Joint Subcommittee (Stollof)
 - Example: TRB: Transportation Safety Planning Working Group (Stollof)
- Products and Services to ITE members will result from attendance at meetings such as professional development, website information, safety news, newsletter and ITEJ articles, speakers at ITE meetings and conferences, etc.

Advocate

- Become champions, leaders and advocates of safe roads.
- Advocacy is not a primary role of ITE members, but can be a supportive function for the membership.
- Advocacy may be a role of our members via the public agencies through which some of our members are employed.
- ITE views advocacy more from an educational position on technical and policy issues related to various safety domains and sub domains.
- ITE will evaluate safety advocacy roles and present options to the International Board of Direction where appropriate. One example of past participation is the “Make Roads Safe” campaign.
- Various venues that ITE may get involved with include: national press conferences, panels, conferences, press kits, etc.

Table 1: IBOD 2004 Board Recommended Safety Areas and Priority Roles

Safety Area	Priority	Provider	Convener	Advocate	Partner	Clearinghouse
Intersections*	H	X				
Before/after studies	H	X				X
Speed mgt*	H	X				
Ped/Bike*	H	X	X		X	
Crash records*	H			X		
Road departure*	M	X				
Comprehensive Safety plan	M		X		X	
Road safety audits	M			X		
ADA/accessibility*	M		X		X	
Vulnerable users	L	X				
Access management	L				X	
Work zone safety	L	X		X		
Highway/rail crossings	L	X				
Safety Conscious Planning	L			X	X	

**For these safety areas, technology applications should be a specific emphasis.*

Table 2: Recommended 2008-2013 Safety Action Plan (Safety Focus Areas and Priorities)

SAFETY AREA	PRIORITY	ROLE		
		Provider	Convener/Partner	Advocate
Intersections <ul style="list-style-type: none"> • Access Management • Designing for All Users • Signalized/Unsignalized • Roundabouts • Automated Enforcement 	High	◆	□	
Road Departure <ul style="list-style-type: none"> • Horizontal Curves • Paved Edge Drop-Offs • Urban Challenges • Rural Challenges • Fixed Object Strategies (Trees, Utility Poles, Streetscaping Features, etc.) • Proper Use of Roadside Hardware 	High	◆	□	
Special Users <ul style="list-style-type: none"> • Pedestrians & Bicyclists • Age-Related Considerations & Needs (i.e. Older, Younger, Inexperienced, etc.) • Accessibility of Public ROW • Safe Routes to Schools • Motorcyclists • OTR Freight 	High	◆	□	
Speed Management <ul style="list-style-type: none"> • Rational Speed Limits • Automated Enforcement • Self-Explaining Roads 	High	◆	□	
Crash Data & Analysis <ul style="list-style-type: none"> • Highway Safety Manual • Crash Records & Reporting • Crash Analysis & Evaluation • Roadway Elements Inventory 	High		□	○
Human Factors & Driver Behavior <ul style="list-style-type: none"> • Self-Explaining Roads • Impaired Drivers • Fatigued Drivers • Distracted Driving • Seat Belt Use 	Medium		□	○
Safety Conscious Planning <ul style="list-style-type: none"> • Strategic Highway Safety Plans • Local Safety Plans • Sustainable Safety 	Medium		□	
Work Zones	Low		□	○
Emergency Response/EMS	Low		□	○
Highway-Rail Grade Crossings	Low		□	○
Safety Education/Outreach	Low		□	○

WHY SELECT SAFETY AS A MEGA ISSUE?

Global Traffic Safety

For the first time in the history of the World Health Organization, World Health Day was devoted to road safety. The slogan for the day was "Road Safety is No Accident." The global event was celebrated on 7 April 2004 in Paris, France. The event was hosted by then-President Jacques Chirac of France, who delivered a powerful keynote speech calling road traffic collisions an "evil, which strikes at the modern world". He stressed the need for political commitment to road safety at the highest level and called for action by all countries to address this crisis.

Road traffic injuries are a major but neglected public health challenge that requires concerted efforts for effective and sustainable prevention. Of all the systems with which people have to deal every day, road traffic systems are the most complex and the most dangerous. Worldwide, an estimated 1.2 million people are killed in road crashes each year and as many as 50 million are injured. Projections indicate that these figures will increase by about 65% over the next 20 years unless there is new commitment to prevention. Nevertheless, the tragedy behind these figures attracts less mass media attention than other, less frequent types of tragedy.

U.S. Traffic Safety

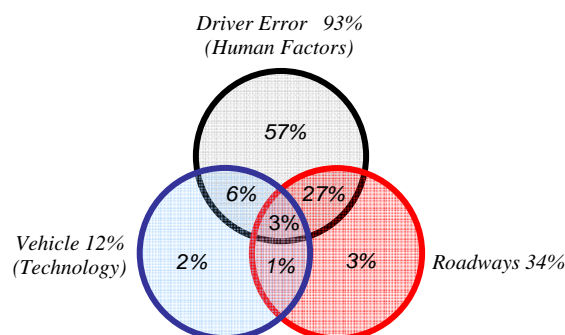
In 2003, the fatality rate per 100 million vehicle miles of travel fell to a new historic low of 1.48. The 1993 rate was 1.75 per 100 million vehicle miles traveled. In 2003, 42,643 people were killed in an estimated 6.3 million police-reported crashes; almost 2.9 million people were injured and over 4.3 million crashes involved property damage only. In the year 2000, NHTSA calculated the economic cost alone of motor vehicle crashes of \$231 billion. Here are a few 2003 statistics:

- An average of 117 persons died each day in motor vehicle crashes —one every 12 minutes.
- Motor vehicle crashes are the leading cause of death for every age from 2 to 33 years old.
- Speeding is one of the most prevalent factors contributing to traffic crashes. Speeding was a contributing factor in 31 percent of all fatal crashes, and 13,380 lives were lost in speeding-related crashes.
- Older people made up 12 percent of all traffic fatalities and 16 percent of all pedestrian fatalities.
- 70,000 pedestrians were injured and 4,749 were killed in traffic crashes in the US, representing 2 percent of all of the people injured in traffic crashes and 11 percent of all fatalities.

The Transportation Engineering Profession

As shown in Figure 2, when vehicular crash causes are considered in combination with each other, we find that 93% of the crashes involve driver error, 34% involve roadway features, and 12% involve vehicle malfunctions. Vehicles are quite well designed and unlikely to fail in operation. Roadways are not perfect, but most are generally design-standard compliant or safe in design. Drivers make mistakes in making decisions every few blocks. Mistakes include: imprudent driving, illegal maneuvers, poor judgment and loss of control. Engineers can design and operate roadways taking into account the interface between the driver and the roadway and between the roadway and the vehicle (technology). The engineering profession can in some way impact about one-third of all vehicular crashes.

FIGURE 2



WHO IS DOING WHAT?

AASHTO Strategic Highway Safety Plan

In late 1996 and early 1997, the AASHTO Standing Committee for Highway Traffic Safety assembled a group of national safety experts on driver, vehicle, and highway issues. The purpose of the gathering was to develop a strategic plan for highway safety that would impact the nation's present and predicted statistics on vehicle-related deaths and injuries. The participants included a range of stakeholders representing both private and public sectors. The result of the meeting was a comprehensive Strategic Highway Safety Plan (SHSP) with a goal to reduce the annual number of highway deaths by 5,000 to 7,000 and to do so effectively and in a manner acceptable to the general public.

The top strategies are divided into 22 key goals or emphasis areas. The SHSP is further divided into six elements:

Drivers

- Goal 1: Instituting graduated licensing for young drivers
- Goal 2: Ensuring drivers are fully licensed and competent
- Goal 3: Sustaining proficiency in older drivers
- Goal 4: Curbing aggressive driving
- Goal 5: Reducing impaired driving
- Goal 6: Keeping drivers alert
- Goal 7: Increasing driver safety awareness
- Goal 8: Increasing seatbelt usage and improving airbag awareness

Special Users/Non-motorized

- Goal 9: Making walking and street crossing safer
- Goal 10: Ensuring safer bicycle travel

Vehicles

- Goal 11: Improving motorcycle safety and increasing motorcycle awareness
- Goal 12: Making truck travel safer
- Goal 13: Increasing safety enhancements in vehicles

Highways

- Goal 14: Reducing vehicle-train crashes
- Goal 15: Keeping vehicles on the roadway
- Goal 16: Minimizing the consequences of leaving the road
- Goal 17: Improving the design and operation of highway intersections
- Goal 18: Reducing head-on and across-median crashes
- Goal 19: Designing safer work zones

Emergency Medical Services

- Goal 20: Enhancing emergency medical capabilities to increase survivability

Management

- Goal 21: Improving information and decision support systems
- Goal 22: Creating more effective processes and safety management systems

Implementation of the SHSP involves a two-pronged effort: (1) Widespread, timely utilization of those strategies with a proven history of effectiveness and (2) Establishment of model development and demonstration efforts in emerging safety categories. The SHSP is being implemented through Federal funds, with some cost sharing by the states and private sector. Currently, a series of implementation guides are being developed to assist state and local agencies in reducing injuries and fatalities in targeted

emphasis areas. Table 3 identifies the list of titles that will ultimately be available as published guides making up specific volumes of NCHRP Report 500. Each guide corresponds to all or part of one of the emphasis areas in the SHSP. The guides are available for free download from either the AASHTO web site (<http://safety.transportation.org/about.aspx>) or the Transportation Research Board website (<http://www.trb.org/TRBNet/ProjectDisplay.asp?ProjectID=435>). As completed volumes are published, the download lists are updated.

Table 3: Implementation Guides for the AASHTO Strategic Highway Safety Plan

<ul style="list-style-type: none"> • Volume 1: A Guide for Addressing Aggressive-Driving Collisions • Volume 2: A Guide for Addressing Collisions Involving Unlicensed Drivers and Drivers with Suspended or Revoked Licenses • Volume 3: A Guide for Addressing Collisions with Trees in Hazardous Locations • Volume 4: A Guide for Addressing Head-On Collisions • Volume 5: A Guide for Addressing Unsignalized Intersection Collisions • Volume 6: A Guide for Addressing Run-Off-Road Collisions • Volume 7: A Guide for Reducing Collisions on Horizontal Curves • Volume 8: A Guide for Reducing Collisions Involving Utility Poles • Volume 9: A Guide for Reducing Collisions Involving Older Drivers • Volume 10: A Guide for Reducing Collisions Involving Pedestrians • Volume 11: A Guide for Increasing Seat Belt Use • Volume 12: A Guide for Reducing Collisions at Signalized Intersections • Volume 13: A Guide for Reducing Collisions Involving Heavy Trucks • Volume 14: Reducing Crashes Involving Drowsy and Distracted Drivers • Volume 15: A Guide for Enhancing Rural Emergency Medical Services • Volume 16: A Guide for Reducing Crashes Involving Alcohol • Volume 17: A Guide for Reducing Work Zone Collisions • Volume 18: A Guide for Reducing Collisions Involving Bicycles • Volume 19: A Guide for Reducing Collisions Involving Young Drivers • Volume 20: A Guide for Reducing Head-On Crashes on Freeways • Volume 21: A Guide for Collecting and Analyzing Safety Highway Safety Data • *Volume 22: A Guide for Reducing Motorcycle Crashes • *Volume 23: A Guide for Reducing Speed-related Crashes <p><i>*Indicates this volume is currently in preparation</i></p>

NCHRP Report 501, Integrated Management Process to Reduce Highway Injuries and Fatalities Statewide, has also been developed in conjunction with the SHSP. This document provides an overall framework for coordinating a safety program. The integrated management process comprises the necessary steps for advancing from crash data to integrated action plans. This report, together with the implementation guides, provides a comprehensive set of tools for managing a coordinated highway safety program.

An implementation process using the published guides is now underway. Lead states were identified for the first six published guides listed in the table, with 2 to 16 states developing implementation programs for each guide. In addition, a number of states are developing comprehensive highway safety plans using NCHRP Report 501 as a guide.