

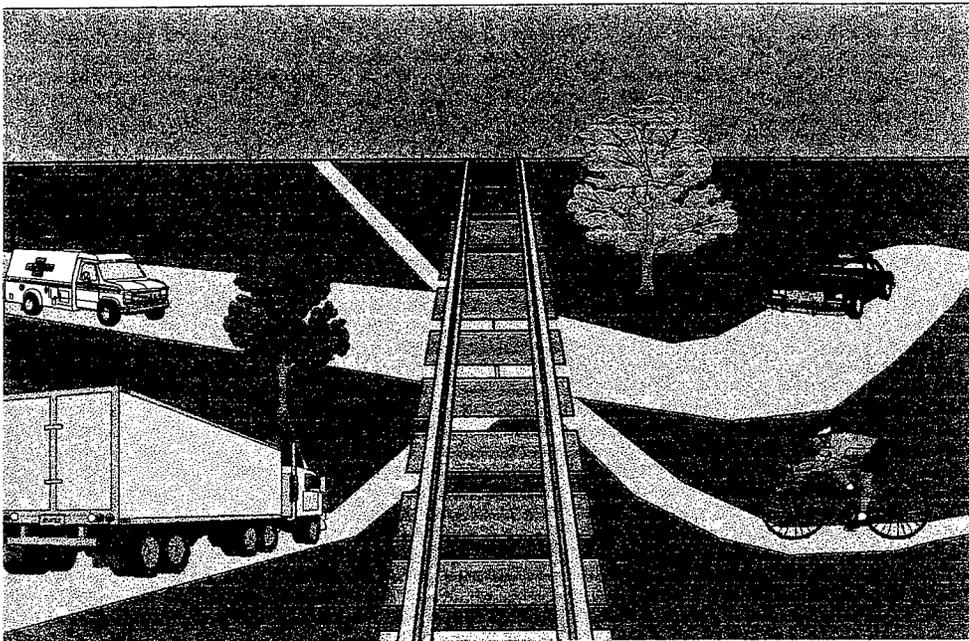


U.S. Department of Transportation  
Federal Highway Administration

Office of Program Quality Coordination  
Office of Highway Safety



PB98-163223



# The Role of the Federal-aid Division in Highway Safety

## Safety at a Crossroad

HPQ-97-4  
APRIL 1998



**SAFETY BY DESIGN**  
FEDERAL HIGHWAY ADMINISTRATION

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# **Table of Contents**

<b>Abstract</b> .....	<b>i</b>
<b>1. Introduction</b> .....	<b>1</b>
Background: crash statistics .....	1
Background: current status of the FHWA strategic planning process .....	1
Purpose of review .....	5
Acknowledgments .....	5
Definitions .....	6
<b>2. Safety duties, functions, responsibilities of safety specialists</b> .....	<b>8</b>
Findings .....	8
Organization .....	8
Duties and responsibilities .....	10
Training assistance by the safety specialist .....	11
Networking and participation in statewide multiagency highway safety teams, committees, task forces .....	12
Outreach .....	13
Marketing, selling .....	14
Expectations of highway safety partners for safety specialists .....	14
The effect of personnel turnover .....	15
Preparation as a safety specialist .....	16
Conclusions .....	16
Recommendations .....	18
<b>3. Safety duties, functions, responsibilities of the FA Division</b> .....	<b>19</b>
Findings .....	19
Work plans .....	19
Program reviews .....	20
Relationship with the Division Office of Motor Carriers .....	20
Management support .....	21
Summary of findings .....	21
Conclusions .....	21
Recommendations .....	22
<b>4. Coordination of highway safety-related functions and activities among FHWA offices</b>	<b>23</b>
Findings .....	23
Conclusions .....	25
Recommendations .....	26

<b>5. Coordination of highway safety-related functions and activities among FA Divisions and other Federal agencies</b> .....	<b>28</b>
Background .....	28
Findings .....	30
Conclusions .....	32
Recommendations .....	32
<b>Appendices</b> .....	<b>34</b>
I. Recommendations .....	35
II. Scope, methodology, and team members for review .....	40
III. Best practices .....	44
IV. Examples of safety specialists' duties .....	54
V. Status of safety management systems in review States .....	63
VI. Acronyms .....	68

## **A Message on Highway Safety**

As we begin to implement the FHWA Strategic and Performance Plans, I strongly emphasize the importance and consideration of safety in everything we do. Safety should not be the responsibility of only certain employees or certain programs. Instead, safety is everyone's job and should be a priority in all our endeavors. We need to be strong, consistent, and thorough advocates for ensuring that all our actions in all components of our mission are supportive of improving safety. We have helped build one of the safest highway systems in the world, however, we must not become complacent since much remains to be done.

I emphasize the Strategic Plan, the role of the Federal-aid Division offices, and safety integration as the key challenges and opportunities to achieving our safety goals.

### **Strategic Plans**

The USDOT and the FHWA identify highway safety as a top priority in policies and programs. Our Secretary calls safety our "North Star" or guiding direction. Both the USDOT and the FHWA identify safety as a strategic goal. In developing our Strategic Plan, the FHWA led the Department in establishing bold goals for safety. We have worked with the National Highway Traffic Safety Administration (NHTSA) and set joint goals of a 20 percent reduction in both fatalities and serious injuries over the next decade. These goals are included in the Department's Performance Plan that has been sent to Congress; the NHTSA has developed their Strategic Plan to put forth this joint goal for safety improvement.

Now we need to work jointly with NHTSA and the other surface agencies to carry out the Plan. In arriving at the 20 percent goals, driver behavior, education, and enforcement were identified as key components. We project about 60 percent of the goal (5,000 lives saved from the current national total) will be achieved through those behavioral programs and NHTSA's vehicle improvement initiatives. Clearly, all FHWA staff should be aware of, contribute, and add value to these efforts, particularly with the *Buckle Up America* campaign.

The other component to achieve the safety goal is FHWA's role in the infrastructure, the Intelligent Vehicle System deployment, and motor carrier safety improvements. We expect that we will meet about 40 percent of the goal in these areas. That translates into a reduction of 3,400 lives saved from the current national level (42,000), and an even greater number if you figure in the fatalities and injuries associated with increased traffic growth.

### **The Federal-aid Division's Role in Highway Safety**

The Office of Program Quality Coordination led an effort over the last year to examine and improve the field's role in safety. The report, *The Role of the Federal-aid Division in Highway Safety, Safety at a Crossroad*, helps set an agenda to improve "how" we deliver safety. Several key recommendations are:

- All units, i.e., Federal-aid and Motor Carriers in the field and program offices, should reassess and focus their collective strategies to improve highway safety;

- Division offices should annually identify actions to support national safety goals which include individual State's safety priority areas;
- Divisions should move towards using the "model for proactive safety coordination" for structuring the roles, responsibilities, and duties of safety coordinators, and
- Headquarters and the new resource centers should continually assist the Division offices in addressing national safety goals, initiatives, and indicators.

### **Safety Integration**

We have already started an effort to address a finding and conclusion underlying the review; the integration of safety into every component of highway transportation. The Office of Highway Safety has the lead in that effort. All headquarters and Division offices are participating. I fully support this initiative. We do not intend that the priority consideration of safety dismisses or lowers consideration of our other goals. We need to do more than balance safety with other goals. We need to raise the bar and achieve higher levels on all our goals at the same time.

### **Summary**

As you develop and implement your individual office plans and critical job elements, I want to especially bring to your attention a number of new or expanded directions to improve highway safety. These are contained in the FHWA Federal-aid Performance Plan just sent to the Congress.

- Our highway safety responsibility is not limited to the Interstate, National Highway System, or traditional Federal-aid roadways. Safety is our concern on all roads.
- We need to integrate safety more formally into all highway activities: planning, design, construction, operations, and maintenance activities.
- We need to work to improve safety management processes at all levels-- State, metropolitan, and local. Data bases of crash information must be improved. The use of data to analyze the problems and identify potential countermeasures must be expanded. The number of safe communities needs to be increased.
- We need to get the word out to our partners and customers on the many countermeasures that are currently available and applicable to their needs. We also need to aggressively provide technology transfer for those new and emerging technologies and methods to improve safety.

  
Kenneth R. Wykle, FHWA Administrator



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## ***Abstract***

A review was conducted to identify the tasks, functions, and activities that the Federal-aid (FA) Division currently performs related to highway safety.

The team visited nine States and conducted meetings with various agencies and organizations responsible for highway safety improvement programs and projects. The meetings were conducted between March and July 1997. States visited represented a cross section of program size and location of the Governor's Highway Safety Representative (GR).

Highway safety is a top priority of the Federal Highway Administration (FHWA). The FHWA has committed itself to goals of reducing highway-related fatalities and serious injuries each by 20 percent in 10 years. Among the United States Department of Transportation (USDOT) modes, the FHWA FA Divisions are in a unique position to influence highway safety improvement programs and efforts within States.

The key finding of the report is that there is inconsistency in the field's (the FHWA's point of delivery) activities. Key initiatives and strategies for improving highway safety are not well identified, coordinated, understood, or accepted throughout the FHWA (headquarters and field).

Variations in how the FA Divisions are organized and staffed for highway safety suggests that the FHWA field may be inadequately staffed or have less than needed levels of resources to achieve these goals. The lack of training opportunities for safety specialists and the need to better utilize resources that exist elsewhere in the FHWA, the Office of Motor Carriers (OMC), and the National Highway Traffic Safety Administration (NHTSA) also suggest that the FHWA field may not be adequately prepared to provide the influence and assistance which will be needed to achieve the strategic highway safety goal in each State.

Based on the activities and functions some safety specialists currently perform, however, we can identify attributes of proactive highway safety specialists. Their functions would include networking, training, and outreach activities focused on the roadway and the road user.

The program and field offices of the FHWA need to collectively plan and implement key highway safety strategies and performance measures. Continuing coordination within the FHWA and with other modes is necessary to utilize resources efficiently and effectively.

With direction, focus, and support that is accepted throughout the FHWA, all safety specialists can be recognized as highway safety advocates. They will be adequately and appropriately prepared to influence our partners so that the FHWA can achieve its highway safety goals.

Recommendations are provided to improve communication, implementation, and coordination of highway safety strategies within the FHWA and with partners. Appendix I is a summary of the recommendations.



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# 1

## ***Introduction***

### ***Background: crash statistics***

The number and rate of highway crashes remains significant problems. In 1996, 41,907 people were killed in motor vehicle traffic crashes; 3,511,000 people were injured; and 4,548,000 crashes involved property damage only. (Source: National Highway Traffic Safety Administration - NHTSA)

The numbers and rates of crashes over the last 20 years suggest that efforts to improve highway safety have stalled. The chart titled "Trends in Crash Statistics for Federal-aid and Non-Federal-aid Highways" indicates that the numbers of fatalities and injury crashes have not declined significantly during this time period. Even with increasing traffic volumes, the rate of injury crashes has not significantly decreased.

*The societal cost of traffic crashes now runs \$150 billion a year, with the taxpayers' portion approaching \$14 billion. Crashes result in costly injuries, productivity losses, lost travel time, and increased congestion, placing a huge burden on the nation's economy.*  
(Source: NHTSA)

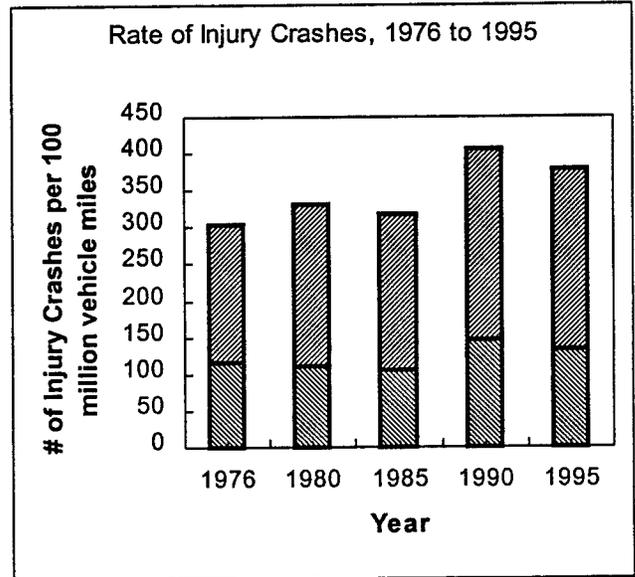
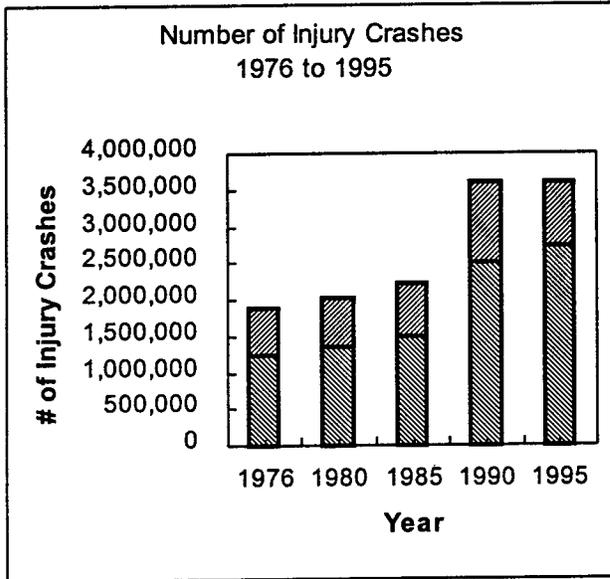
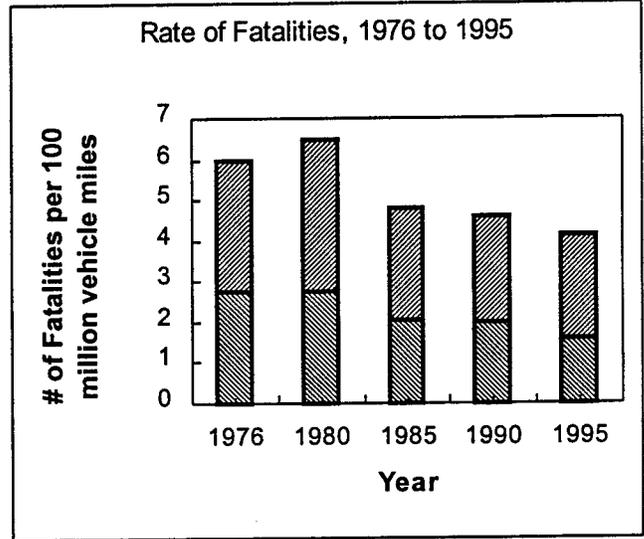
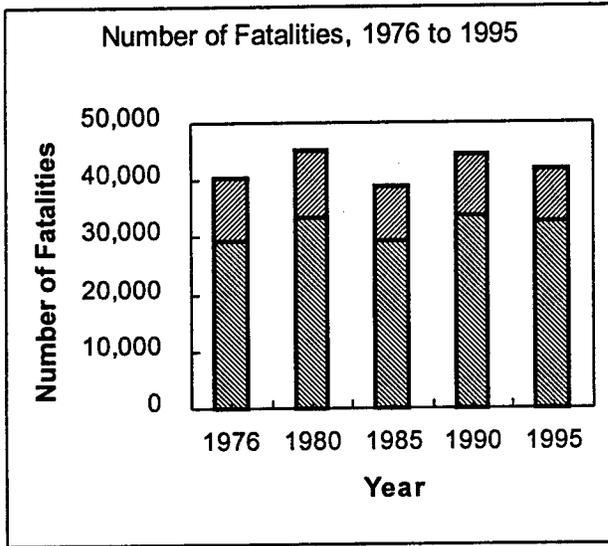
The Federal Highway Administration (FHWA) is committed to improving highway safety on all public roads, even though most of its programs and funding do not target low-volume roads. Although Surface Transportation Program (STP) Safety Setaside Program funds may be used on all roads as of Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), most FHWA Federal-aid (FA) is specifically not to be used to fund projects on local roads (roads functionally classified as rural minor collectors, local roads, and streets). While the *number* of crashes is consistently lower on non-Federal-aid highways, the *rate* of crashes on these highways is consistently higher.

### ***Background: current status of the FHWA strategic planning process***

The FHWA is responsible for administering highway safety programs related to the roadway and the road user. These safety programs remove, relocate, or shield roadside obstacles; identify and

## **Trends in Crash Statistics for Federal-aid and Non-Federal-aid Highways**

Source: FHWA Annual Reports on Highway Safety Improvement Programs, 1976, 1980, 1985, 1990, and 1995.



Legend: Numbers or Rates on Federal-aid Roads Numbers or Rates on Non-Federal-aid Roads

correct hazardous locations; eliminate or reduce hazards at railroad crossings; and improve signing, pavement markings, and signalization.

Within this context and given the significance of highway crashes, the United States Department of Transportation (USDOT) and the FHWA continue to identify highway safety as a top priority in policies and programs. The current strategic planning processes of both the USDOT and the FHWA identify highway safety as a priority. The Secretary of the USDOT has called safety his [the Department's] "North Star" or guiding direction. Since this review was initiated, the USDOT and the FHWA have documented a commitment to improving highway safety through the following statements.

The USDOT has identified a USDOT strategic goal for safety, which is one of five strategic goals for the Department.<sup>1</sup> This goal is to promote the public health and safety by working toward the elimination of transportation-related deaths, injuries, and property damage. The draft 1999 USDOT Performance Plan notes that the FHWA, NHTSA, and Federal Railroad Administration (FRA) are the operating modes responsible for highway safety. Further, the USDOT Strategic Plan identifies the following outcome goals for the strategic safety goal:

- 1) Reduce the number of transportation-related deaths.
- 2) Reduce the number and severity of transportation-related injuries.
- 3) Reduce the rate of transportation-related fatalities per passenger mile traveled and per ton-mile of total freight shipped (or vehicle miles traveled).
- 4) Reduce the rate and severity of transportation-related injuries per passenger mile traveled and per ton-mile (or vehicle miles traveled).
- 5) Reduce the dollar loss from high-consequence, reportable transportation incidents.
- 6) Reduce the number of reportable transportation incidents and their related economic costs.

The FHWA recently developed five strategic goals to *help accomplish* its mission and achieve its vision. These goals are aligned with the USDOT's strategic goals. The FHWA strategic goal for safety is to continually improve highway safety.<sup>2</sup> The FHWA's strategic objective and indicators for the highway safety goal are as follows:

*Reduce the number of highway-related fatalities and injuries.*

- 20-percent reduction in the number of highway-related fatalities in 10 years.
- 20-percent reduction in the number of highway-related serious injuries in 10 years.

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<sup>1</sup>United States Department of Transportation, Strategic Plan for Fiscal Years 1997-2002.

<sup>2</sup>FHWA 1998 National Strategic Plan: January 1998.

The FHWA's key strategies in highway safety include the following:

- Promoting Safety Management Processes
- Deploying Lifesaving Technologies on the Highways
- Focusing on Commercial Vehicle and Driver Safety
- Focusing on Human Behavior

The FHWA has identified a number of performance goals and planned accomplishments for 1998 to support the FHWA strategic goal for safety. Those that are targeted for the Federal-aid Program of the FHWA are:

“FHWA Performance Goal G-1.0.1 — Improve safety management processes to better identify and resolve highway safety problems.

- G-1.0.1.a Develop a safety management self-assessment process for States and metropolitan planning organizations (MPOs).

FHWA Performance Goal G-1.0.2 — Reduce number and severity of crashes in priority safety areas (run-off-road, pedestrian/bicycle, and States' targeted safety areas).

- G-1.0.2.a Each Division identifies with their State its high priority safety problem areas and associated countermeasure plan. (*Supports Presidential Priority on Safety*)

- G-1.0.2.b Complete the test and development plans for each of the four Intelligent Vehicle Initiative platforms. This is a joint FHWA, NHTSA, Federal Transit Administration (FTA) initiative to accelerate the development, introduction, and commercialization of products to reduce the number of motor vehicle crashes.”<sup>3</sup>

Each of the FHWA's three major programs (the Federal-aid Highway Program, the Motor Carrier Safety Program, and the Federal Lands Highway Program) is preparing a performance plan that includes program-specific performance goals and indicators that will contribute to achieving the overall Agency strategic goals and objectives of the FHWA Strategic Plan. With the exception of the Federal Lands Highway Program, which participated in the Government Performance and Results Act (GPRA) performance planning pilot, the first program performance plans are being prepared for Fiscal Year 1999 in the GPRA format. These will be final when Congress approves the Agency's Fiscal Year 1999 budget.

The FHWA has coordinated its goals and objectives for highway safety with the NHTSA and FRA. In particular, the goals and objectives of the FHWA and the NHTSA<sup>4</sup> for highway safety

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<sup>3</sup>Performance Agreement between the Secretary of Transportation, Rodney E. Slater, and the Federal Highway Administrator, Kenneth R. Wykle, Fiscal Year 1998.

<sup>4</sup>In December 1994, the NHTSA issued its Strategic Plan. The NHTSA is currently updating its Strategic Plan, but no changes are planned for its goal statements.

are similar in many ways. This similarity reflects the ongoing coordination and joint efforts between the two agencies.

## ***Purpose of review***

The FHWA conducted this review to identify the role(s) and effectiveness of the FA Divisions in serving as catalysts for advancing highway safety. During the review, it became apparent that the effectiveness of the FA Divisions (specifically, safety specialists) is a function of the FHWA's coordination and emphasis on highway safety issues and improvement strategies. Therefore, the role of the safety specialist can be viewed as exemplifying the FA role in highway safety. Information obtained as a result of this review identified best practices to ascertain where FHWA is now and/or in the future adding value regarding highway safety. It was also used to develop recommendations for the FHWA FA Divisions to improve highway safety.

Specifically, this review was conducted because the FHWA recognizes the following facts:

- Improving highway safety is a strategic goal of the USDOT and the FHWA because of the continuing high number and rate of crashes on public roads.
- The FHWA Divisions are the “point of delivery” for the programs, initiatives, etc. of the FHWA to our partners (State and local).
- The relationship among local governments, State Departments of Transportation, and FA Divisions has changed significantly since passage of ISTEA.
- The number and variety of partners involved in improving highway safety have increased to include not only State and local enforcement agencies, emergency response agencies, and advocacy groups, but medical, public health, and business groups, as well.
- A senior management team of the NHTSA and the FHWA has committed to and begun work to guide a coordinated safety delivery program.
- Each State's objectives, organization, and level of commitment or maturity in a highway safety program are unique.
- There is increasing emphasis to implement intermodal safety initiatives among FRA, NHTSA, FHWA, and counterpart safety agencies of State and local governments and other nongovernmental entities.
- Accomplishing the USDOT and FHWA goals for highway safety will require aggressive cooperation among the modes (FHWA, NHTSA, and FRA at a minimum).

## ***Acknowledgments***

The team would like to thank all who participated in this review for their candid thoughts and suggestions. We found dedicated and knowledgeable individuals in Federal, State, and local government who believe we can do more to reduce the number and severity of crashes on our roads and highways.

## ***Definitions***

In this report:

- The **FHWA** is the entire Federal Highway Administration inclusive of the Federal Lands Highway Office (FLFO), the Office of Motor Carriers (OMC), the Federal-aid (FA) program, and field offices. The FHWA FA Divisions exclusive of the Division OMC are referred to as FA Divisions in this report.

The role of the FA program in highway safety is to provide financial and technical assistance to improve the safety of highway and roadway infrastructure and drivers' reactions to it.

The role of the Federal Lands Highway Office in highway safety is to design and construct highway projects on Federal lands using nationally accepted standards and policies for highway safety.

The role of the OMC in highway safety is to develop, communicate, and enforce performance-based regulations for motor carriers, drivers, and vehicles to promote safe commercial vehicle operations.

- The **National Highway Traffic Safety Administration's** (NHTSA's) mission is to save lives, prevent injuries, and reduce traffic-related health care and other economic costs. The agency develops, promotes, and implements effective educational, engineering, and enforcement programs. These programs are designed toward ending preventable tragedies and reducing economic costs associated with vehicle use and highway travel.
- A **Safety Management System (SMS)** is a systematic process to reduce the number and severity of traffic crashes. An SMS ensures that all opportunities to improve highway safety are identified, considered, and implemented as appropriate and are evaluated in all phases of highway planning, design, construction, maintenance, and operation. Appendix V includes a status of the SMS in the States reviewed.
- **Safety specialist** refers to the highway safety position in the Federal-aid Divisions. **Region coordinator** refers to the highway safety position in the FHWA Region offices.
- A **State** is the entire state encompassing all State and local roads. State Departments of Transportation (DOT), Governor's Highway Safety Representative Offices (GRs), or other State agencies will be referred to as such.
- The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) set aside 10 percent of the funds apportioned for the Surface Transportation Program (STP) for States to carry out Sections 130 and 152 of Title 23 of the United States Code. Sections 130 and 152 establish highway safety programs for railway-highway crossings and hazard eliminations, respectively. Collectively these programs are referred to as the **STP Safety Setaside Program**.

- **3+**  
The current safety Program Areas to be administered entirely or in part by the FHWA for the Highway Safety (or Section 402) Program are collectively referred to by some as the “3+” portion of the Highway Safety Program. This is a reference to what was once known as the Highway Safety Standards. At one time, the Highway Safety Program identified 18 Highway Safety Standards. The FHWA was responsible for the “Identification and Surveillance of Accident Locations,” “Highway Design, Construction, and Maintenance,” “Traffic Engineering Services,” and “Highway-Related Aspects of Pedestrian Safety” — collectively termed the 3+ Standards. The remaining Standards were the responsibility of the NHTSA.

The Highway Safety Program identifies six National Priority Program Areas that are currently administered by the NHTSA and one Program Area (Roadway Safety) that is administered by the FHWA. Two Program Areas are to be jointly administered by the FHWA and the NHTSA (Pedestrian and Bicycle Safety and Speed Control).

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# 2

## ***Safety duties, functions, responsibilities of safety specialists***

Safety is a concept and an underlying principle of highway engineering that is woven into all activities and functions of the FHWA and therefore, the FA Divisions. Each FA Division has a safety specialist to coordinate, focus, and serve as a principal point of contact within the FA Division and for State and local partners in implementing FA highway safety improvement programs, initiatives, and technologies. This Chapter explores how the FA Divisions staff the coordinator's position and the various ways the coordinators assist State and local partners. Chapter 3 explores the coordination of safety activities within the FA Division.

### ***Findings***

#### ***Organization***

Table A summarizes how the reviewed FA Divisions are organized for highway safety functions. Table A also indicates how much of the FA Division's Full Time Equivalent (FTE) is assigned to these functions. A couple of safety specialists said that they devote 25 percent of their time to safety duties. In FA Divisions that have a full-time safety specialist and/or others in the FA Division who have safety duties, 1.5 to 1.6 FTE may be devoted to safety duties. This variation in the resources devoted to safety did not appear to be a function of the size of the FA program or the total FA Division FTE. The percent of Division FTE devoted to safety ranged from 0.4 to 6.0 percent. The 1994 Report of the FHWA's Organization and Staffing Review Task Force suggested that 4 percent, or that equivalent to planning, be devoted to a proactive<sup>5</sup> safety/Intelligent Transportation Systems (ITS) function.

One FA Division's organization has a team structure. The traffic management and safety team is one of five ongoing teams defining the office's organization. The team leader serves as the FHWA member on the State's SMS steering committee. One of the team members (who was at one time the Division's safety specialist) has responsibility for roadside appurtenances and

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<sup>5</sup>In the Report, "proactive" defines a level of service that permits comprehensive and assertive pursuit of activities associated with functions for which the FHWA leads, initiates, and anticipates problems and needs.

**TABLE A**  
**Summary of attributes of safety specialists and time spent in FA divisions on safety duties**

Attribute/State	1	2	3	4	5	6	7	8	9
Years as safety specialist	1-5	>5	>5	1-5	1-5	>5	1-5	1-5	<1
Grade	12	13	12	12	13	12	12	12	12
Other duties assigned to safety specialist	None	None	Area Engineer	Several duties other than safety are listed in Position Description	None	ITS, Traffic Operations, and Design Standards.	Traffic Design Standards	ITS, Traffic Operations, DOT Region liaison, and several other minor duties.	Traffic Operations
Reporting levels between safety specialist and Division Administrator	2	1 (reports directly to DA)	3	2	3	2	2	2	2
Estimated FTE by safety specialist for safety duties	1.00	1.00	<.50	.60	1.00	.75	.60	.25	.25
Estimated FTE by others in the FA Division on safety duties	.50-.60 Team members have some of these duties	.25 hardware/roadside design, MUTCD, traffic, work zones.		.05-.10 on safety (hardware) activities.				.25 Multimodal safety liaison	
Total percent of FA Division FTE on safety duties	5-10	5-10	1-5	1-5	1-5	1-5	1-5	1-5	<1
FHWA Program Size <sup>6</sup>	Medium	Medium	Medium	Small	Large	Medium	Small	Medium	Large
FA Division FTE <sup>7</sup>	Medium	Medium	Small	Small	Large	Small	Small	Medium	Large

<sup>6</sup>FHWA Annual FA Program: Small is less than \$200,000,000; Medium is between \$200,000,000 and \$500,000,000; and Large is greater than \$500,000,000.

<sup>7</sup>FA Division FTE: Small is less than 20, Medium is 21 to 30, Large is greater than 31.

work zone safety. The other team member, as the designated safety specialist, is the focal point in the FA Division for programmatic activities related to highway safety.

In another Region, the Regional Director, OMC, volunteered one FTE for the current fiscal year to be a multimodal safety liaison in the Division reviewed. The safety specialist has responsibility for engineering-related safety activities. The multimodal safety liaison has responsibility for building highway safety coalitions, conducting outreach, and promoting and marketing Federal safety programs. The safety specialist generally has more involvement with the DOT engineering offices for design, construction, and maintenance. The multimodal safety liaison generally has more involvement with the Governor's Highway Safety Representative Offices (GR) and the Motor Carrier Transportation Safety section of the DOT. Both NHTSA and FRA program managers expressed satisfaction with the multimodal safety liaison.

Although four of the FA Divisions with part-time safety specialists combine safety duties with traffic operations, another FA Division with a full-time safety specialist strongly feels that safety and traffic operations duties should be separate. They maintain that safety is as different from traffic operations as any other function of the FA Division is from safety. The FA Divisions with part-time coordinators have many factors to consider in combining functional areas — the coordinator's strengths and weaknesses, the needs of partner agencies, and the size of the FA Division.

### ***Duties and responsibilities***

Safety specialists spoke of programmatic functions in which they are involved. These programmatic functions included the STP Safety Setaside Programs, 402 3+, Work Zones, Safety Research and Safety Technology Transfer, Roadway Issues (geometric design, appurtenances, guardrail upgrading), and safety-related standards (for example, the MUTCD).

Specific examples of how safety specialists carried out these programmatic functions are included in Appendix IV. This Appendix also includes a discussion of recent changes in the administration of the 402 Program to reduce the FHWA's involvement.

*"Safety is not a position of defined work. Rather, it's what you make out of it."  
A safety specialist*

The nature of programmatic duties is defined largely by the needs of the DOT and other State agencies that are directly responsible for these programs. A factor in the nature of the relationship between the safety specialist and the State is whether the GR is an office within the DOT, a separate State agency, or an office of another State agency. Appendix II, "Scope, methodology, and characteristics of review States," includes a table noting where the GR's office resides in the States reviewed. While sometimes the safety specialist recognizes a need to improve a program or process, often the responsible State agency requests assistance. Typically, the safety specialist is a team member on State reviews or technical committees. State agencies value the safety specialist as a neutral point of view and also for technical competence in highway safety roadway engineering and the administration of FHWA programs.

In two of the review States where the DOT is decentralized, the DOT relies on the safety specialist and others in the FA Division to provide consistency in administration of standards and procedures. One DOT noted that with a recent reorganization toward decentralization, districts

do not always have sufficient expertise in safety. The DOT appreciates the safety specialist or field operations engineer's participation in the DOT's District Safety Review Teams. These teams also help the DOT district offices find out what is being done in other districts. The FHWA team members bring a fresh perspective because they usually do not have preconceived solutions to current situations.

The programmatic duties discussed above are carried out primarily with DOTs and other State agencies that have direct responsibility for these programs. In essentially all States reviewed, there was virtually no involvement with local governments in the safety programs.

The duties that were identified were compared to those noted in previous studies and course materials for new safety specialists. No definitive identification of expected duties for safety specialists currently exists. It is felt that this allows FA Divisions the flexibility to structure duties needed to support or complement the needs or abilities (level of sophistication) of the DOTs and other safety partners.

*"The FHWA needs to see what is going on in the State. And not just through reviews."  
A DOT representative*

Many of the safety specialists, in promoting the concept and development of SMSs and to promote headquarters-developed products and initiatives, are finding that they are becoming more involved with networking, training, outreach, and marketing activities. This creates opportunities for them to be involved more with the GR, local governments, interest groups, and sometimes the public.

Safety specialists are recognizing a need to build a network of safety knowledge and expertise within the FHWA and among themselves. This network helps provide customers with links to safety advocates and expertise in other States. Due to financial and personnel shortages, some safety specialists perceive reluctance to sharing their time outside their States. Safety specialists also recognize that the specific expertise for highway safety issues may not be proportional to the size of the safety FA program and may change over time. Like many other FA programs, it is often difficult to appropriately address perceived needs with limited staff. Therefore, safety specialists (like their DOT counterparts) are relying more and more on networking to locate needed expertise.

### ***Training assistance by the safety specialist***

Safety specialists are assisting in training efforts in many ways. In some instances, the safety specialists and Region safety coordinators prepare and teach course material. In others, the safety specialists have worked with DOTs to identify safety-related training needs. DOTs have noted where the safety specialists have helped find sources of funding for training. Most of the States valued the training provided by or through the FHWA.

*"The FHWA needs to provide course material better focused to State needs. For example, in the Pavement Design Course, recognize the pavement type predominantly used in the State. We would be willing to pay extra for additional development to include State-specific information."  
Another DOT representative*

Training subject areas that were described most frequently were work zones, safety design, maintenance, guardrail (e.g., National Cooperative Highway Research Program - NCHRP - 350) standards, and the 402 Program.

A safety specialist's or Region safety coordinator's involvement in preparing or teaching courses has been a valued mechanism for tailoring FHWA courses to a particular State's laws, policies, and procedures. DOTs value this effort because it makes the courses more meaningful and therefore more effective.

Safety specialists have been instructors for training provided to DOT and local government personnel, and utility and construction industry people. Training has been one of the primary ways for the safety specialists to be in contact with partners, particularly partners other than DOTs.

Some unique ways to use FHWA funds for training were noted. In one State, a safety training center is run by a local university. The project is administered by the GR and uses funding from NHTSA 402, FHWA 402, and State funds. The center appears to function like a Local Technical Assistance Program center directed totally to highway safety subjects. The State's law enforcement training center is a partner and regularly participates in instructional activities.

In another State, the DOT has developed a Transportation Awareness Program. Two-hour presentations are made to driver training classes, service clubs, organizations, the public, and DOT staff during winter maintenance training. The FHWA helps by locating videos and other resource materials.

### ***Networking and participation in statewide multiagency highway safety teams, committees, task forces***

In many of the review States, safety specialists devote much of their time to activities they characterized as networking and being members of multiagency highway safety efforts. They talked about these roles as being just as, if not more, important than the programmatic roles described previously.

*"We now have people talking together who didn't before."  
A safety specialist*

A number of safety specialists feel that their involvement on teams, committees, or conferences helps build networks of highway safety professionals in their State. (Specific examples of networking activities are described in more detail in Appendix IV.) These coordinators feel that networking is their most

important and effective role. Networking means more than knowing names and responsibilities of highway safety advocates; rather it means building trust among the network's membership to work together.

An FHWA OMC State Director noted that the safety specialist has provided the OMC office staff with access to groups and people with whom the State staff need to work. This access is possible because of the safety specialist's network of highway safety advocates.

*"We're trying to promote having a greater presence, across the board, regardless of agency in the safety programs. We're trying to get all of the safety players in the State, regardless of whether they are State, local government, or private interests. We want them to think of FHWA as "Let's include them—they are facilitators; they'll help us get things done."  
A Division Administrator*

The DOT and GR noted that the safety specialist is recognized as an advisor, collaborator, and consensus builder in these activities. The safety specialist is a good consensus builder even when members of a team or task force have different programs to promote or different philosophies. They also noted that a safety specialist brings a broader perspective to committees because he/she knows what is going on in other States.

*"Everybody has to get together and be a part of the solution. They have to be acquainted with each other and be approachable. The first question that everyone asks is, "Do you have any money?" Someone will have some. The key is finding it, and then participating in partnerships to put the money to the best use to produce a desired outcome. We should view dollars and data as tools."  
A safety specialist*

The safety specialists believe that building networks of highway safety advocates is essential and that it takes time to develop functioning networks. This, however, is inconsistent with the FHWA FA philosophy that emphasizes mobility in position and location.

### **Outreach**

In some States, safety specialists (and others in the FA Division) devote considerable time and resources to activities that inform the public about highway safety concerns, i.e., outreach. Safety specialists are doing this in two ways. One is to be personally involved in outreach efforts. In the State that has a multimodal safety liaison, one of the three principal roles of the liaison is to perform public outreach. Here the outreach is defined as "manning" displays or making presentations at county fairs, civic meetings, seminars in schools, and other public gatherings. The displays offer safety information on a variety of highway safety concerns such as railroad/highway grade crossings, driver and passenger restraints, and the No Zone. In another State, both the safety specialist and an OMC staff member perform these kinds of outreach efforts.

The second way safety specialists inform the public about highway safety concerns is to ensure that information (printed materials, videos, etc.) intended for the public is made available through the network of safety advocates. Members of these networks disseminate such information in many ways. Advocacy groups such as the American Automobile Association (AAA) noted that they can use this kind of material in their newsletters. As members of a highway safety coalition in one State put it, the idea should be to make sure members of the highway safety network know what materials are available. Any member should then use any public forum or distribution mechanism available to display and distribute highway safety materials from all members of the network.

The safety specialist plays a role in bringing FHWA's, NHTSA's, and FRA's materials to this network, as well as being a source for materials developed in other States.

### ***Marketing, selling***

With changes in oversight roles of the FA Division, safety specialists recognize and accept a role of marketing or selling FA highway safety programs and initiatives. Both safety specialists and their DOT partners noted this role as replacing the more directive pre-ISTEA role. The question raised by many of the coordinators was what they should be selling or marketing. Explaining and interpreting the STP Safety Setaside Program is understood. More difficult for the coordinators to define are the expectations for their role in marketing and selling various highway safety outreach activities such as Red Light Running and Read Your Road. Previously and almost uniformly across the Nation, this role has traditionally fallen to NHTSA and the GRs. Most of the safety specialists in the review States actively sold Red Light Running to State and local governments. The Office of Highway Safety (OHS) credits the efforts of these and other safety specialists for the 50 applications that have been submitted to date (and continue to be submitted) and the 30 grants that have been awarded. However, in other instances the safety specialists did not understand what they were expected to do with these documents. Also, if continued development of the SMSs is to be promoted (which many coordinators and partners agree is desirable), then safety specialists need to be better prepared (i.e., trained) to interpret crash data and identify strategies to promote SMSs.

### ***Expectations of highway safety partners for safety specialists***

Many examples are noted (in Appendix IV) of the safety specialists' involvement to streamline processes, provide needed training, and share information from other States or FHWA-sponsored research. This involvement typically derives from the FHWA funding source, i.e., the STP Safety Setaside Program.

Through these programs, the DOTs and other safety partners view the FHWA as a funding source for improving highway safety. The DOTs value the FHWA's suggestions or openness to ideas that help partners lower costs or use limited funding in ways not previously considered. For example, DOTs noted the FA Divisions' help in finding demonstration funds to try alternative and lower cost pavement markings. Many DOTs are now, with the FHWA's encouragement, using FA project funds for enforcement in work zones.

*"We have seen renewed vigor by FHWA to be involved in more than operations or engineering [aspects of safety]. For example, [a set of public service announcements for highway safety] would not have been possible without FHWA funds. The OMC has also been very helpful to our programs related to commercial vehicle operations relative to safety."*  
A GR

Beyond programmatic activities, being a funding source also gives the FHWA membership on teams, task forces, committees, etc., within a State to improve highway safety. However, DOTs and other highway safety partners want to identify and solve their problems and don't want the FHWA to tell them how to do this. These partners value FHWA's proactive membership (not leadership) on State teams, and FHWA is viewed as a team member.

The safety specialist, being outside the bureaucracy of State agencies, can communicate and build relationships with staff in many different agencies, at many levels. It is often difficult for State employees to do this, particularly outside their own agencies. Therefore, the safety specialist can overcome institutional barriers among State agencies and bring people together from various levels within those agencies.

*"The NHTSA and FHWA can meet with State Commissioners to point out duplication of effort in traffic records that we as working staff in State agencies could not."  
Members of State Traffic Records and SMS Committee*

The safety specialist is typically a good panel moderator because of his/her understanding of the issues and perspectives of the players. The coordinator can relay technical engineering concepts and language to nonengineering personnel associated with the safety program.

One DOT believes that the FHWA helps to fill resource voids on review activities that DOT could not get done themselves. Another DOT noted that FHWA staff is another set of eyes and ears in the field.

One GR, whose office had recently moved from being part of the DOT to become a separate agency, noted that the FHWA Division's involvement during restructuring kept a number of FA programs going during this period of change. In fact, during the review, three agencies in the State said that the State's safety programs would have suffered and been further behind today without the Division's (both FA and OMC's) involvement, support, and assistance.

*"The role of the FA Division is to sell roadway solutions and network within the State. The FHWA brings a nationwide network of experience to the State."  
A GR*

This State has also recently created a Forum for Commercial Vehicle and Highway Safety. As one of the members of the forum, the FHWA Division's role has been to contribute a national perspective, data, graphics support, and funds. The State's trucking association believes that the FA Division has a vested interest in seeing that the Forum is successful.

Identifying and establishing a multiorganization group of highway safety advocates in a State is one of the first steps intended in the SMS. Even if States do not wish to pursue a SMS, highway safety advocates agree that this must be done to identify and appropriately use available resources to impact highway safety. Safety specialists can and do play a key role to this end.

The DOTs caution that to perform these roles effectively, the FA Division must understand State laws. They feel that this is as important as the role the FA Division has to explain Federal law, regulations, and programs to the States.

### ***The effect of personnel turnover***

Two GRs commented that they have difficulty building a relationship with the FHWA when the person in the safety specialist position changes frequently. In one FA Division, the current safety specialist is the third person in the position in the last 2-1/2 years. In the other, the GR noted that four or five people have had the position over the last 10 years. One DOT commented

that although the safety specialist had not been in the position very long, the person held other positions in the FA Division and had known some of the contacts in the DOT necessary to the safety specialist position.

### ***Preparation as a safety specialist***

Safety specialists who are new to their positions (within 5 years) have not received any training as a safety specialist. The training course for safety specialists has not been offered in at least this many years. Those safety specialists who had the benefit of training feel that the core curriculum for safety specialists should be reinstated. All safety specialists felt that training is needed to understand the concepts and strategies that FHWA is promoting for improving highway safety — SMSs, crash data collection and evaluation, characteristics of effective STP Safety Setaside Programs, effective work zone traffic control, current practices and research in safer highway design, and others.

To remain effective and responsive in their positions, safety specialists also feel that they must stay current with the FHWA information on highway safety. They do not feel that information systems and networks are effectively identified or maintained within the FHWA. They do not always know what highway safety-related information currently exists in the FHWA or who “owns” it and can be called upon for assistance among the various offices of the FHWA.

## ***Conclusions***

*In summary, there are significant variations in how the FA Divisions are organized and staffed for highway safety. There does not appear to be consistency in the specific duties performed by the safety specialists. The FA Divisions contend that this lack of consistency for safety specialists and other positions gives the FA Divisions flexibility. Flexibility is needed to organize and focus on the perceived needs and interests of partners within each State. Safety is one of a number of functional areas that must be considered when allocating FTE.*

It is impossible to measure the precise impact of the safety specialist’s actions on a reduction in highway crash statistics in a State. However, based on anecdotal testimony from safety partners, a safety specialist who is viewed as a safety advocate and who is instrumental in statewide coalitions of State, local, public, and private groups is viewed as a valued and key resource to the successful identification and implementation of crash-reduction strategies.

*Characteristics of proactive highway safety functions of safety specialists can be identified. A model based on the activities that some safety specialists currently perform is provided in the table titled “A model for a proactive safety specialist or safety team.”*

In many cases, a DOT is the FA Division’s primary partner for highway safety. Some safety specialists are developing relationships with other highway safety partners through networking and training activities. Successful implementation of the FHWA’s key strategies for highway safety will require effective partnerships among the FA Division and MPOs, rural highway districts, local governments, Native American communities, and other roadway infrastructure owners, as well as other State, local, and nonprofit agencies and organizations that have

## ***A model for a proactive safety specialist or safety team***

### ***Functions to be carried out***

- *FA Division management and safety specialists assess with partners crash statistics and partners' strengths and weaknesses in highway safety to determine how to focus safety specialist's resources.*
- *Knows and routinely works with highway safety advocates in the State.*
- *Participates actively in statewide highway safety coalitions, such as statewide traffic safety meetings (all levels of government, industry, interest groups). Brings highway safety infrastructure perspective to these coalitions.*
- *Actively assists in efforts to impact highway safety problem areas identified in a State.*
- *Brings national highway safety perspective and access to expertise existing elsewhere to State and local partners.*
- *Is knowledgeable about highway safety engineering, e.g., data analysis and safety concepts in highway geometries and appurtenances.*
- *Is knowledgeable of the principles and process for effective safety management systems.*
- *Can relay highway safety engineering principles to nonengineers.*
- *Is able to identify duplication of efforts within the State, especially in crash data.*
- *Knows State and local laws and policies relating to highway safety and FA policy and procedures.*
- *Is knowledgeable about the STP Safety Setaside Program, Work Zone Review Requirements, currently accepted crash test results, 402 3+, and OMC safety programs.*
- *Is knowledgeable of intermodal programs (those of the OMC, NHTSA, and FRA) to speak about certain issues and direct inquiries for more information and details to intermodal partners.*
- *Ensures that activities are coordinated within the Division (FA and OMC) to support and achieve the FHWA's highway safety goals and to incorporate national strategies into specific actions.*
- *Actively participates in intermodal safety activities with representatives of other DOT agencies on current initiatives and training courses related to highway safety.*

*highway safety interests. Safety specialists are in a unique position to bring highway infrastructure and behavioral interests to networks for highway safety within a State.*

### ***Ways To Carry Out Functions***

- *Finds ways to suggest rather than force improvements.*
- *Is perceived and recognized as approachable and as an advisor, collaborator, trainer, analyst, and highway safety advocate by partners and customers.*
- *Participates positively in joint decision making; works to achieve consensus.*
- *Looks for "how to," not "why not."*
- *Is proactive in dealing with partners, customers (rather than reactive).*
- *Is an active and effective team leader and member.*
- *Knows how to market and sell highway safety improvement strategies.*

*Safety specialists do not feel that they have adequate opportunities to be trained as new coordinators or to continue professional growth.* New safety specialists need to develop an understanding of highway safety problems. They need to understand strategies to identify and mitigate unsafe situations. There is a need to expose them to current research. Many such highway safety training opportunities no longer exist. Virtually no "elective" training courses related to current jobs are available.

Current discussions of the FHWA Region office restructuring offer an opportunity to reallocate field staff. If reallocation is based on goal areas, a unique opportunity to expand and develop field expertise for highway safety is available.

## ***Recommendations***

The FHWA FA Divisions should use "A model for a proactive safety specialist or safety team" identified in this report as a flexible model for structuring the roles, responsibilities, and duties of safety specialists or teams. The model describes roles and responsibilities to be the focal point for highway safety programs, initiatives, and activities in the FA Division. This model incorporates networking, facilitating, training, and outreach techniques. It may be applied to a variety of organizational situations: part-time or full time responsibilities of one, a number, or a team of FA Division staff.

Safety specialists need to increase their involvement with local governments and with highway safety advocacy and interest groups through networking and outreach activities.

The Office of Highway Safety and the Office of Personnel and Training should redefine and reinstitute the safety core curriculum concept for highway safety experts in the FHWA. The core curriculum should address the functions for safety specialists identified in this Chapter.

A career ladder should be developed for safety experts. (Implement recommendation 3 of Litton/PRC Report, July 28, 1997, "FHWA Skills Needs Assessment.")

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# 3

## ***Safety duties, functions, responsibilities of the FA Division***

### ***Findings***

The term “highway safety” has been defined in different ways within the FHWA. At a national level, highway safety is a strategic goal of the FHWA. In the FA Divisions, “highway safety” is effectively defined as one of a number of key functional or organizational areas or programmatic functions. Indicators of the emphasis for highway safety in the FA Divisions are the organizational structures of the FA Divisions, treatment of highway safety in annual work plans, and number and type of program reviews on highway safety-related issues.

As noted in Chapter 2, the safety function is organized as a team in one FA Division, and some FA Divisions allocate more FTE to the safety specialist function than others.

### ***Work plans***

Emphasis on highway safety in work plans also varies. In one FA Division work plan, safety is one of three areas in the field operations section of the plan, and field operations is one of ten sections of the work plan. In another, safety is one of two areas in the FA Division’s plan to support the FHWA’s goals for safety and mobility.

The functions of the safety specialist described in Chapter 2 suggest that this position has two primary areas of responsibility. One is to coordinate and act as the office expert for highway safety issues; the other is to represent the FHWA in assisting State and local partners on highway safety programs and issues.

While Chapter 2 discussed these responsibilities from the safety specialist’s perspective, activities to coordinate highway safety issues within the FA Division are harder to identify and quantify. The review team did not hear many examples of coordination among major functional areas (environment, planning, pavements, structures, right-of-way, safety) for highway safety goals or strategies. There is more coordination, primarily information sharing on highway safety issues, among operations staff (area, region, or transportation engineers) and the safety specialist.

Questions raised by FA Division staff and partners suggest that opportunities are being missed to translate and integrate highway safety as a strategic goal into other programmatic activities. The following examples were given:

- Is safety improvement routinely used as a criterion for project prioritization by MPOs and DOTs?
- Are ITS projects or systems being promoted and implemented to reduce crashes as well as to mitigate congestion? A corollary question: Are highway safety personnel (Federal, State, local) included in decisions to identify projects or systems?
- Are FA Divisions provided the tools that partners (both State and local) need to include safety in risk management analysis for project alternatives, for example, tools to assess trade-offs between environmental and safety concerns?

### ***Program reviews***

Safety specialists are involved in program reviews in two ways. Some reviews are specifically for safety issues or programs. Other staff members in the FA Division coordinate with or have the safety specialist serve on review teams for completed projects, maintenance activities, or annual work zone reviews. The latter type of topical review is more prevalent.

DOTs are the foci and primary customers of highway safety-related reviews and programmatic assistance. There is little direct interaction with MPOs, cities, or counties in these activities.

### ***Relationship with the Division Office of Motor Carriers***

The FA Division's working relationship with the Division OMC and customers' perceptions of the Division Administrator's support and involvement in safety-related activities are also indicators of the Division's emphasis on highway safety.

In some Divisions, there is more coordination between FA and OMC than in others. The Divisions where there is coordination are those where management encourages it. One example of such coordination is the Division OMC's participation in regular staff meetings. The multimodal safety liaison position in one Region was created from OMC FTE. Other examples have occurred when individuals, through previous jobs in the FA Division or Division OMC or personal interests, share information about meetings and activities. In a couple of States, former OMC personnel are now safety specialists, or a former FA staff member is now in the OMC. Both seemed to work well. In these cases, there is coordination of Commercial Vehicle Operations (CVO)/ITS activities, coordination of commercial vehicle crash information, and joint participation in outreach events, such as "No Zone." In one Division, the State agencies see the safety specialist and an OMC staff member as interchangeable for representing the FHWA on ITS issues and activities.

Some see opportunities and benefits for more coordination in the future for ITS, outreach, and crash data collection and analysis. Often the safety specialist and someone from OMC is on an

SMS executive committee or other statewide safety coalition. Work plans of FA and OMC offices are not currently coordinated to any great extent because they are generally quite different. However, as more safety-related activities involve both the safety specialist and OMC, there is a growing recognition to document mutual activities in work plans.

### **Management support**

Two (of the nine) Division

Administrators are viewed by Federal, State, and local partners as active and vocal advocates for highway safety. Both of these Division Administrators were noted by the DOT and GR for speaking on safety issues in a variety of public and State agency conferences. In one State, the Division Administrator was credited for supporting a public service announcement campaign by suggesting the use of FA funds for its development. The GR and State enforcement agencies in one State appreciated the efforts of this Division Administrator and the State Director of the OMC for providing guidance and assistance during the State agencies' reorganizations.

*"The major focus of the Division is to develop partnerships. The one in the safety arena is the longest standing one of these. We are all in it together for safety."  
A Division Administrator*

### **Summary of findings**

Documented activities and the organization of many FA Divisions suggest that highway safety is treated more as one of a dozen or so program areas rather than strategically as one of a few strategic objectives to be addressed across many program areas or functions.

A few Divisions are identifying activities to be coordinated between the FA Division and the OMC. These Divisions are recognizing common strategies to improve highway safety for which resources for mutually identified activities can be coordinated between the offices.

Few Division Administrators are recognized outside their States as highway safety advocates.

## **Conclusions**

The observations of both this Chapter and the previous one suggest a lack of leadership and direction within the FHWA to substantiate and reinforce highway safety as a strategic goal. Thus, highway safety is interpreted as a programmatic function in some FA Divisions. This can diminish the importance that State and local partners perceive the FHWA gives to improving highway safety.

The FHWA (both program offices and field) needs to translate the highway safety goal and key strategies more specifically into business plans. More specific initiatives need to be commonly agreed to and tracked to illustrate the FHWA's commitment to its goal. Agreement, understanding, and commitment by both program offices and field offices of FHWA are critical. Coordination with OMC and NHTSA at a working level is mandatory to address in a coordinated fashion all causes of highway crashes.

## ***Recommendations***

The FHWA FA Divisions should annually identify actions to support national highway safety goals. Division activities should result from the identification of high-priority safety problem areas and associated countermeasure plans with State and local partners. Division activities for highway safety should be evident in all functional areas, not just safety. Actions so identified should be coordinated with OMC and NHTSA.

Where there are complementary and mutual objectives, the FHWA Division OMC and FA safety specialists should continually coordinate safety actions between the offices.

The Office of Highway Safety should create a continuing system to assist the Division Offices apply the national highway safety goals, initiatives, objectives, and indicators to FA Divisions. A component of this system would be to develop a safety management self-assessment process for States and MPOs. Other components of the system should be identified from the Divisions through the forum recommended in Chapter 4.

The Office of Highway Safety with field involvement should develop a safety leadership seminar or other means to address how to balance safety with economics, mobility, environment, and other interests. The target audience for the seminar should include local governments, resource agencies [environmental and others], GRs, NHTSA, DOTs and FHWA Regional Administrators, Division Administrators, and Regional and State Directors of OMC.

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# 4

## ***Coordination of highway safety-related functions and activities among FHWA offices***

### ***Findings***

The structure for coordination for highway safety issues among FA Divisions and FHWA Regions varies. Most Regions have intermodal safety teams. Some intermodal safety teams include the safety specialists. Few have OMC representation beyond a Region office member. (Further discussion of Regional intermodal safety teams is included in Chapter 5.) In some Regions, there is both a FHWA safety team and an intermodal safety team; in others, this is one inclusive team.

One Region is actively pursuing information sharing within the Region on safety-related roadway engineering issues through a FA Regional safety team. This team has produced a “product” each year as well as working ongoing issues. A CD-ROM of standard drawings used by all States in the Region has been distributed to each State. A retroflectivity handbook was produced last year. This year the team distributed to each State a compilation of safety materials from all States in the Region. An example of an ongoing concern which the team is trying to address is an over representation in fatal rollover crashes.

*“We share our expertise in other States whenever we can. We are trying to eliminate the State boundaries.”*  
Region safety team

In a couple of Regions, the Regional safety coordinator and the Division safety specialists have developed a directory of their interests and expertise within the Region. In general, both the Division safety specialists and the Regional safety coordinators believe one role of the Regional safety coordinators is to orient and assist new Division safety coordinators. Another is to share information on headquarters initiatives.

Although it may not exist consistently in all Regions, there appears to be a better functioning network among safety coordinators and the Regional safety coordinator than among the field safety contacts and headquarters program offices.

Coordination and sharing of information among safety specialists and program office personnel (responsible for highway safety issues in a variety of offices) on safety issues is anecdotal, voluntary, and random — effectively a function of individual personality and interest. Contacts initiated by safety specialists of various FHWA headquarters offices — such as the OHS, the Office of Technology Applications (OTA), the Office of Safety and Traffic Operations Research and Development (R&D), and the Office of Engineering — typically are the result of relationships formed previously through previous work or positions. New safety specialists, particularly those who have not had training or a position in headquarters, are unlikely to know whom to contact or how to get information from these headquarters offices on highway safety issues.

Partners (both State and local) value FHWA as a clearinghouse or source of highway safety research and current technologies. They also value FHWA-sponsored conferences, training, and participation on teams as a means to share highway safety information within and among States. Due to budget and administrative constraints, partners would rather send more of their staff members a shorter distance than a few to a national conference. A number spoke of the value of tri-regional safety conferences. Safety specialists accept the role of providing a national perspective and network of research and current information on safe roadway design and engineering to their State. However, there is a perception that, due to the lack of funding for multistate conferences and seminars, highway safety is not an emphasis area of the FHWA.

*"We [State DOT] see tri-regional conferences as one of the best ways to share activities among States and to hear about national perspectives."  
Representatives of the State DOT*

Likewise, safety specialists also feel that they must stay current with FHWA information on highway safety. They do not feel that information systems and networks are identified or maintained to know what highway safety-related information currently exists in FHWA or who "owns" it and can be called upon for assistance among the various offices of the FHWA.

Many safety specialists found the "tri-regional" safety conferences invaluable for maintaining contact with counterparts elsewhere in the FHWA and for obtaining knowledge about current FHWA practices, research, and expertise. They suggest regular multistate or multiregional workshops or conferences specifically targeted for the FHWA highway safety programs or key strategies as the most economical way to provide this type of support.

The perception among safety specialists is that the current FHWA message for highway safety is exemplified and emphasized by the following activities:

- Focus seems to have shifted to more specific behavior-oriented campaigns (such as Read Your Road and Red Light Running). Less emphasis is being given to roadway engineering issues. Many believe the concepts of SMS are still valid even if DOT's pursuit of a formal management system is no longer required. Therefore, the role of safety specialist should be to bring engineering knowledge and expertise to statewide coalitions of highway safety advocates. This expertise is needed to create useful crash data information systems, to use the data to identify problems, to develop rational strategies to deal with problems, and to measure effectiveness of chosen strategies. Although the OHS says that the concept of SMS

is still valid and to be promoted, specific actions such as training in these areas for either partners or safety specialists is not being pursued.

Further, safety specialists (and DOTs , GRs) do not feel that FHWA-generated programs such as Red Light Running or Read Your Road adequately involve or utilize the field for problem identification, strategies to market or disseminate the programs, or follow-up to evaluate effectiveness or usefulness of the effort. Headquarters offices view the FA Divisions as the point of delivery for these kinds of campaigns. Safety specialists accept this role but don't feel that they are appropriately or adequately prepared or included in development. Many GRs thought Red Light Running was a successful campaign and appreciated FHWA's efforts. Others felt that their involvement could have better sold the initiatives. When the FHWA has initiated such initiatives, partners and field staff often feel that their involvement during development and implementation would make projects more successful.

- Many partners and safety specialists are recognizing that more crashes and higher rates of crashes are occurring on roads and highways off the FA system. Because the FA Division's primary relationship is with DOTs, appropriate ways to provide FHWA's engineering expertise and assistance to other partners are needed. Also, safety specialists need to be prepared for unique challenges of improving safety on low volume roads. *There is a need to recognize that more direct involvement with local governments to transfer research and technology on highway safety issues is appropriate.*
- *Some safety specialists and State agencies believe that the FHWA is not actively pursuing the concepts and intent of SMSs. (Appendix V is a status of SMSs in the States reviewed.)* Their belief is that efforts to impact crashes must rely on timely and accurate data and a multidisciplinary approach. The lack of adequate data analysis tools, particularly for local partners, is significant.

## **Conclusions**

As noted in Chapter 2, there are significant variations in the FA Divisions are organized and staffed for safety. Likewise the duties, functions, and activities of the safety specialists vary significantly. Chapter 3 notes that highway safety activities of most FA Divisions collectively relate more to programmatic functions for highway safety than identifying functions and activities for highway safety key strategies. This Chapter notes that field perceptions of headquarters initiated initiatives suggest that there is not agency wide agreement or acceptance of the FHWA's role and objectives to improve highway safety.

Since this review effort was initiated, the FHWA has announced its goals<sup>8</sup> and key strategies to improve highway safety. The observations of this review effort indicate that the key strategies that have recently been announced imply a shift in the FHWA's role in improving highway safety. With crash statistics remaining relatively constant over the last decade, a significant reduction in crashes required a reassessment of the role, organization, and strategies of the FHWA for highway safety. A continuing dialog needs to be established and nurtured within the FHWA — among both field and headquarters, and the three FHWA programs — in order for

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<sup>8</sup>Goals for highway safety are joint between the FHWA and the NHTSA.

*coordinated* programs, functions, and initiatives to evolve around the new key strategies and the FHWA's role.

The need for coordination and acceptance of the FHWA's role in improving highway safety does not mean that all FA Divisions must be staffed or organized the same way. Differences among states organizations, laws, programs, and crash statistics will require that the FHWA's field offices have the flexibility to interpret and apply programs, functions, and activities individually State by State. However, by redefining its role in highway safety, leadership and direction needs to be coordinated and consistent throughout the FHWA. The FA offices of the FHWA (headquarters and field) need to jointly articulate FA strategies to support the FHWA safety goals in terms of partners' needs.

Effective communication networks among FHWA highway safety professionals (headquarters and field) must be developed. This is particularly important for highway safety research staff and new safety specialists.

Both partners and safety specialists find multistate conferences or workshops the most economical way to share best practices among States. These forums have also been an effective way to transfer techniques, research, etc. that has been developed in FHWA headquarters. Budgetary problems have curtailed some of these efforts. Hopefully, linkage between States' needs and FHWA strategies for the highway safety goal can justify funding for future opportunities, as partners have found these sessions to be valuable in the past.

The FHWA headquarters offices, and in particular the OHS, need to provide the technical, programmatic, or training assistance that the field requires so that they can identify, with partners in the State, activities that will support the FHWA's key strategies for highway safety.

## ***Recommendations***

The Office of Highway Safety should facilitate and lead an ongoing forum of FHWA headquarters and field offices to identify how the FHWA will implement the key highway safety strategies and performance measures. Representation from all FHWA program offices (planning, environment, engineering, OTA, R&D, OMC, FL) and field offices is essential. A method to coordinate with other modal partners should be included (e.g., linkage to the Senior Management Safety Team). The forum should include a methodology for gathering and assimilating input from partners — State and local, and other interest groups. Implementation objectives, projects, and/or initiatives should be derived from and evaluated in terms of crash data. They should be identified prior to, and for consideration in, FA, Federal Lands, and OMC Division work and/or performance plans.

Regional safety coordinators should regularly conduct multi-regional or -state workshops for safety professionals to facilitate sharing of best practices among States. Funding should be provided on an annual or biennial basis through the FHWA Region offices or proposed resource centers.

The Office of Highway Safety, as a facilitator and coordinator, should establish a functional network of highway safety expertise and knowledge among headquarters program offices and field offices, including the Office of Motor Carriers. Various ways to do this include the following:

- The Office of Highway Safety should develop and maintain a directory of highway safety contacts and their areas of expertise and interests, including program (R&D, OHS, OTA, OMC, FLFO, etc.) and field offices.
- Reestablish annual highway safety conferences for FHWA highway safety experts. The conferences should include workshops that promote the functions for safety specialists identified in Chapter 2 of this Report. These conferences would also be a way to include field input in the ongoing strategic planning process.
- Ensure that the mechanisms to promote and advertise FHWA's expertise and research are actively sought and used. For example, the NHTSA's *Traffic Safety Digest* has a section for roadway issues to which the FHWA should regularly contribute.

The Safety Research and Technology Coordinating Group needs to ensure that the process for identifying and disseminating research is understood by safety specialists and technology transfer coordinators.

The Office of Safety and Traffic Operations Research and Development should create a clearinghouse of research inclusive of all FHWA program offices on safety-related research.

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# 5

## ***Coordination of highway safety-related functions and activities among FA Divisions and other Federal agencies***

### ***Background***

*The FHWA (FA and OMC), the NHTSA, and the FRA have changed either their oversight role or organization over the last several years to be more partner- or customer- oriented.*

Since passage of the ISTEA, the FHWA has redefined its relationship with partners. The FHWA's oversight role on FA projects has decreased; instead, the FA Division's primary oversight role is program review and evaluation. These reviews are routinely conducted as team reviews with DOTs. Specific to highway safety, Chapter 2 and Appendix IV of this report describe networking and coalition-building roles for safety specialists with many other partners beyond DOTs.

The FHWA OMC has reinvented itself from an enforcement and regulatory agency into a "safety" agency. The OMC is now using performance plans to define how its Division, Region, and headquarters elements will work toward a goal of a "crash-free" environment.

The NHTSA is expanding its tradition of leadership in highway safety. The agency is facilitating coalitions and supporting States and communities to develop and support traffic and motor vehicle safety agendas containing specific, well-targeted initiatives. It looks toward involving new individuals and institutions, such as the health care professions and industry. The NHTSA's role in traffic and motor vehicle safety is expanding to be (1) a clearinghouse for technical information, (2) an agent for technology transfer, and (3) a source of expertise that is readily accessible to its partners and customers. The NHTSA has also changed its oversight role through the successful implementation of a performance-based management process for the Section 402 program. States set their own goals and performance measures. In 1997, all of the funding for Section 402 roadway safety (3+) programs was shifted to the NHTSA appropriation, with an earmark for FHWA-related activities. In 1998, Congress again put all 402 funds in the NHTSA budget but cut out all earmarking, giving States more responsibility for the program. In the Federal surface transportation reauthorization Act currently being developed, the NHTSA hopes

to provide States with more flexibility to fund projects and initiatives under a series of incentive programs.

Since 1994, the FRA has been transforming the Federal railroad safety program. The FRA's primary mission is railroad safety and its ultimate goal is zero crashes, zero injuries, and zero deaths. Specifically, the goal of the FRA's safety program is to be more inclusive of the agency's customers, more fact-based, and ultimately more effective, while also less intrusive, less bureaucratic, and less adversarial. The Safety Assurance and Compliance Program (SACP) is one of a number of partnership or team-based approaches that complement the FRA's traditional safety enforcement program. The SACP is a comprehensive approach in which participants work with FRA to identify and correct root causes of problems across an entire railroad system. The 1994 Grade Crossing Action Plan and the current Grade Crossing Task Force are examples of this approach. Each FRA Region has a Highway Rail Grade Crossing Safety and Trespass Prevention Program Manager. This position coordinates partnership efforts for grade crossing improvements within a FRA Region. The FRA has documented decreasing crash statistics since initiation of the SACP and other team-based strategies.

*The current strategic planning effort of the USDOT, the FHWA, the NHTSA, and the FRA reflects greater coordination among the modes on highway safety strategies.<sup>9</sup>*

Through the efforts of the NHTSA and the FHWA, the USDOT does the following: sets vehicle safety standards; promotes highway infrastructure safety standards; tests vehicle and equipment compliance; investigates defects; conducts research in technology and human factors relating to safety; maintains data on transportation incidents, injuries, and fatalities; and develops and enforces safety regulations on commercial motor vehicles. The NHTSA and the FHWA also partner with States to promote education, legislation, enforcement programs, and infrastructure improvement through grants and technical assistance. The NHTSA enlists medical and health community support for Federal and State focus on the public health implications of highway fatalities and injuries, as well as the resulting national economic impact. The FRA joins with the NHTSA and the FHWA in addressing crashes at highway-rail grade crossings.

The USDOT highway indicators and performance goals for FY 1999 note the joint responsibilities. For example, the 1999 goal to reduce the rate of highway-related fatalities per 100 million vehicle miles traveled from 1.7 in 1996 to 1.6 in 1999 will reflect the joint efforts of the NHTSA, the FHWA, and the FRA. The same is true of the 1999 goal to reduce the rate of highway-related injuries per 100 million vehicle miles traveled from 141 in 1996 to 131 in 1999.

*The NHTSA and the FHWA collaborate on and coordinate many initiatives and efforts.* Activities and initiatives such as promoting seat belts, "Moving Kids Safely," and safe communities have been advanced jointly. The Senior Management Safety Team composed of Associate Administrators for Traffic Safety Programs, and State and Community Services of NHTSA; and the Associate Administrators for Motor Carriers, and for Safety and System Applications of FHWA coordinate activities at a leadership level. Recent proposals to change the Section 402 program were coordinated by the two agencies.

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<sup>9</sup>DOT Performance Plan, FY 1999 dated February 1998.

## Findings

*The dynamics of relationships among the field staffs of these agencies are changing as a result of the new directions the agencies are pursuing.* The relationships among the USDOT field staffs are still evolving. They are moving toward more interaction and cooperation, especially among Region offices, as their agencies strive to increase customer focus with national, State, and local agencies.

Many of the activities coordinated at the Regional level are to organize, sponsor, and conduct conferences, seminars, or briefings in the States on various national programs. Airbags, safe communities, and Moving Kids Safely are frequent examples. These activities are typically the responsibility of Regional intermodal safety teams or task forces. These groups currently exist in seven Regions. Two Regions were reorganizing FHWA Regional safety teams during the review. Safety specialists are members of the Regional groups in four Regions. In other Regions, a Regional FHWA team exists or is being reorganized.

One Regional intermodal group has existed for more than 5 years. All surface modal administrations and FHWA Divisions are members of the group. The FHWA OHS is also represented. Beyond coordinating, sponsoring, and conducting informational seminars and briefings, the group has established a Regional safety award. Members of the group may nominate any State, local, or private individual or group for recognition of a unique service in highway safety.

The relationships between FHWA and NHTSA Regions are documented in agreements. FHWA and NHTSA have agreements in six Regions to revise administration of the 402 program.<sup>10</sup> One Region has an intermodal agreement to support safe communities training throughout the Region.

In one Region, a 3 to 4 month rotational assignment has an FHWA Regional safety coordinator spending 50 percent of his/her time in the colocated NHTSA Region office.

*The interactions are more frequent at the Regional level.* A role at the State level (i.e., for the FHWA Division offices) has yet to be defined. Safety specialists and the OMC staff have the presence in each State to assist and nurture statewide highway safety coalitions and improvements. The NHTSA and FRA have programs and expertise but not full time presence at the State level.

*"We [NHTSA/FHWA] in this Region have a strong, trusting relationship. We see each other as mutual partners."  
An FHWA Region coordinator*

As described earlier, the Regional Director of Motor Carriers volunteered one FTE for the current fiscal year to be a multimodal safety liaison in the Division reviewed. Both NHTSA and FRA program managers expressed satisfaction with the multimodal safety liaison speaking for their programs. Experiments such as the multimodal safety liaison are unique and rare. A safety

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<sup>10</sup>A discussion of the administration of 402 program is included in Chapter 5.

role in the metropolitan offices has not been defined.

In some cases, strong relationships have been developed over time between an FHWA safety specialist and a NHTSA program manager. However, turnover in positions (FHWA, NHTSA, FRA) has made this example the exception.

Logistics are a factor. Representatives of FHWA, NHTSA, and FRA Region offices who are located closer to State capitals tend to be more regularly involved on state safety coalitions (such as SMS committees).

Safety specialists know who the NHTSA program managers are and who the FRA grade crossing manager is in their Region. It appears to be more frequently the practice of safety specialists, program managers, and grade crossing managers to invite others to be members of teams, attend conferences, and participate in each other's highway safety-related activities. Only one person from FHWA attended the 1997 International Highway-Rail Grade Crossing Safety Conference. In one Region, FHWA Region and Division and FRA staffs are conducting joint "process reviews" to evaluate States' processes for grade crossing safety programs.

This review found that in States where the safety specialist and others in the FA Division and OMC have built, contributed, or supported multimodal, multiagency statewide highway safety networks or coalitions, a Federal presence to improve highway safety is valued. As a corollary, the agencies in the State understand that the Federal Government wants to work cooperatively within the State to improve highway safety.

Instances were noted of effective partnerships between FHWA Divisions and NHTSA Regions. In one State, the FHWA Division Administrator, the NHTSA Regional Administrator, and a NHTSA Program Manager met with the Governor and DOT Executive Director to discuss speed limits in the State. They gave the Governor the background to help him/her decide what changes in the State speed limit he/she could support. There has been no speed limit increase in this State.

Another example of effective partnership occurred when single-vehicle rollover fatal crashes in a State were thought to be exceptionally high. NHTSA provided the data analysis expertise to FHWA and found that the incidence in two States of the Region was almost double the national average for that type of accident. The NHTSA and FHWA in this Region are working together to find solutions.

Implementation of programs such as Red Light Running, however, could have been more effectively marketed to State and local agencies if the FHWA and NHTSA had coordinated the marketing effort. Better direction to this end from headquarters would have helped.

Beyond routinely advising field counterparts in other agencies of conferences, seminars, etc., safety specialists, NHTSA program managers, and FRA grade crossing managers could share schedules, progress reports, and other easily available information about contacts with States. This would result in greater awareness of each others' current priorities and activities. Routinely sharing such information would also assist in understanding of each others' programs.

There is a perception that data collected for various Federal agencies is not coordinated, resulting in duplicated effort or inconsistent reporting. Examples cited by States were inconsistencies

among data reported to FARs (NHTSA), FRA, and OMC. The problems related to who and how data is gathered, reported, and coordinated among State agencies. The FRA, OMC, and NHTSA could acknowledge that problems exist and work with State agencies to build more reliable relationships among databases and reporting systems.

In States with grade crossing issues, NHTSA program managers, safety specialists, and OMC staff should be encouraged to be Operation Lifesaver instructors and presenters.

NHTSA, FHWA, and FRA should continue to use and seek new ways to use each others' publications and Internet sites. For example, FHWA should contribute to the Roadway Safety Section of NHTSA's *Traffic Safety Digest*. Each agency can broaden accessibility to non-traditional partners. Cross referencing would exemplify coordinated DOT effort and support for one another's programs.

NHTSA program managers noted a number of times that their FHWA counterparts were unaware of the expertise in NHTSA for data collection systems and public information campaigns, for example.

## **Conclusions**

*There is a growing recognition that to work more effectively toward the common goal of improving highway safety, the field staffs of all these agencies need to build awareness of the expertise and organizational capacity within each agency, both field and headquarters.*

The field staffs of FHWA, NHTSA, and FRA are recognizing the benefits of close coordination of programs and activities. They recognize that there is more that can be done in the field and headquarters to this end. Those who recognize these benefits also recognize a need to understand the programs and goals of the other agencies. At a working level, field staffs do not always understand one another's roles, responsibilities, and expertise.

There is a need particularly for new safety specialists to understand the roles and responsibilities of NHTSA program managers and FRA grade crossing managers. Safety specialists need to be similarly sensitive to initiate coordination with new NHTSA and FRA Regional contacts. This is particularly pertinent because NHTSA has moved from assigning program managers primary responsibility for a State to a primary functional responsibility. Field staffs of all agencies recognize a need to provide orientation or training in one another's programs.

As efforts are made to redefine the cooperative roles of the agencies, the roles of the Division offices need to be addressed. Efforts such as the NHTSA and FHWA Senior Management Safety Team and defining intermodal safety teams are opportunities to do this. The need is especially timely in light of USDOT emphasis on multimodal initiatives and the FHWA's restructuring.

## **Recommendations**

Regional intermodal safety teams need to create work plans that address the needs of the States in the Region. The Division Administrators should be considered resources for the teams. Multistate safety improvement teams could benchmark best practices within a region.

As a result of the FHWA Regional restructuring, the role of safety specialists on Regional intermodal safety teams should be reassessed. Safety specialists should be involved to the maximum extent possible in Regional forums to address their States' needs.

The FHWA and NHTSA should recognize the expertise of each agency and use it to mutual benefit when jointly identifying and developing new programs or projects.

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## ***Appendices***

I. Recommendations .....	35
II. Scope, methodology, and team members for review .....	40
III. Best practices .....	44
IV. Examples of safety specialists' duties .....	54
V. Status of safety management systems in review States .....	63
VI. Acronyms .....	68

# I. Recommendations

Short Term Recommendations (to be accomplished within one year of issuance of this report)	Lead Responsibility	Direct Impact on Strategic Goal	Suggested Priority	Chapter Reference	Status of Current Activities
1. The Office of Highway Safety should facilitate and lead an ongoing forum of FHWA headquarters and field offices to identify how the FHWA will implement the key highway safety strategies and performance measures.	Leadership Team with assistance from Director, Office of Highway Safety	High	A	4	The Safety Integration Team initiated by Office of Highway Safety has begun this dialogue.
2. The FHWA Federal-aid Divisions should annually identify actions to support national highway safety goals.	Division Administrators Safety specialists or teams	High	A	3	FY 98 Federal Highway Performance Agreement defines as a reportable major initiative (G-1.0.2.a) that each Division identifies with its State the high priority safety problem areas and associated countermeasures in the State.
3. Where there are complementary and mutual objectives, the FHWA Division OMC and FA Division safety specialists should continually coordinate safety actions between the offices.	Division Administrators Safety specialists or teams State Directors, OMC	High	A	3	The Safety Integration Team is developing proposals to meet the knowledge, tools, and safety needs for field Federal-aid and OMC identified as priorities.
4. The Office of Highway Safety should create a continuing system to assist the Division Offices apply the national highway safety goals, initiatives, objectives, and indicators to FA Divisions.	Director, Office of Highway Safety	High	A	3	The Office's FY 98 Business Plan, reflects a consistent field-directed focus on delivery and institution of the January 1, 1998 field liaison initiative.

## I. Recommendations

Short Term Recommendations (to be accomplished within one year of issuance of this report)	Lead Responsibility	Direct Impact on Strategic Goal	Suggested Priority	Chapter Reference	Status of Current Activities
5. The Office of Highway Safety with field involvement should develop a safety leadership seminar or other means to address how to balance safety with economics, mobility, environment, and other interests. [Pilot session conducted.]	Director, Office of Highway Safety	Medium/ High	A	3	The Safety Integration Team is developing proposals for training for executives, Federal-aid staff and specialists to address priority needs for knowledge, tools, and safety mind-set.
6. Safety specialists need to increase their involvement with governments and with highway safety advocacy and interest groups through networking and outreach activities.	Safety specialists	Medium	B	2	
7. The Office of Highway Safety, as a facilitator and coordinator, should establish a functional network of highway safety expertise and knowledge among headquarters program offices and field offices, including the Office of Motor Carriers.	Director, Office of Highway Safety	Medium	B	4	An E-mail group has been established and is being used for networking highway safety expertise by safety coordinators.
8. The Safety Research and Technology Coordinating Group (RTCG) needs to ensure that the process for identifying and disseminating research is understood by safety specialists and technology transfer coordinators.	Safety Research and Technology Coordinating Group	Medium	B	4	The Safety roadmaps for the Safety RTCG emphasize the dissemination of products to the technical community and the public at large.

# I. Recommendations

Short Term Recommendations (to be accomplished within one year of issuance of this report)	Lead Responsibility	Direct Impact on Strategic Goal	Suggested Priority	Chapter Reference	Status of Current Activities
9. Regional intermodal safety teams need to create work plans that address the needs of the States in the Region.	Regional Intermodal Safety Teams Division Administrators	Medium	B	5	
10. The Office of Safety and Traffic Operations Research and Development should create a clearinghouse of research inclusive of all FHWA program offices on safety-related research.	Director, Office of Safety and Traffic Operations Research and Development	Medium	B	4	
11. The FHWA and NHTSA should recognize the expertise of each agency and use it to mutual benefit when jointly identifying and developing new programs or projects.	Senior Management Safety Team	Low/ Medium	C	5	
12. The FHWA FA Divisions should use "A model for a proactive safety specialist or safety team" identified in this report as a flexible model for structuring the roles, responsibilities, and duties of safety specialists or teams.	Division Administrators Safety specialists or Teams	Medium	C	2	

## I. Recommendations

Long Term Actions (to be accomplished in next 1 - 3 years of issuance of this report)	Lead Responsibility	Direct Impact on Strategic Goal	Timing	Chapter Reference	Status of Current Activities
5a. The Office of Highway Safety with field involvement should develop a safety leadership seminar or other means to address how to balance safety with economics, mobility, environment, and other interests. [Same as Recommendation 5, but all sessions conducted.]	Director, Office of Highway Safety	Medium/High	Next Year	3	
13. As a result of the FHWA Regional restructuring, the role of safety specialists on Regional intermodal safety teams should be reassessed. Safety specialists should be involved to the maximum extent possible in Regional forums to address the needs of their States'.	Regional Intermodal Safety Teams	High	2 - 3 years	5	
14. The Office of Highway Safety and the Office of Personnel and Training should redefine and reinstitute the safety core curriculum concept for highway safety experts in the FHWA.	Director, Office of Highway Safety Director, Office of Personnel and Training	High	2 - 3 years	2	The Safety Integration Team's proposals for meeting needs for highway safety knowledge and tools include the establishment of the competencies required for each Division staff position.
15. Regional safety coordinators should regularly conduct multi-regional or -state workshops for safety professionals to facilitate sharing of best practices among States.	Regional Safety coordinators	Medium	1 - 2 years	2	

## I. Recommendations

Long Term Actions (to be accomplished in next 1 - 3 years of issuance of this report)	Lead Responsibility	Direct Impact on Strategic Goal	Timing	Chapter Reference	Status of Current Activities
<p>16. A career ladder should be developed for safety experts. (Implement recommendation 3 of Litton/PRC Report, July 28, 1997, <i>FHWA Skills Needs Assessment</i>.)</p>	<p>Leadership Team with assistance from Director, Office of Personnel and Training, and Training Advisory Group</p>	<p>Low/Medium</p>	<p>1 - 2 years</p>	<p>2</p>	<p>By memorandum dated November 7, 1997, the recommendations of <i>FHWA Skills Needs Assessment</i> were adopted and an action plan for implementation was prepared.</p>

## ***II. Scope, methodology, and team members for review***

### ***Scope***

The FHWA conducted this review to identify the roles and effectiveness of the FA Divisions in advancing highway safety. The review identifies the following:

- The tasks, functions, and activities that the FA Division currently performs related to highway safety versus the expectations of
  - the FHWA program offices (OHS, OTA - Safety Technology Team, R&D - Safety Design Division, Office of Engineering, OMC);
  - other Federal agencies (NHTSA, FRA, FTA);
  - State agencies (GR's office, State Highway, or Department of Transportation);
  - local agencies (counties, cities, MPOs); and
  - safety interest groups (associations, nonprofits, industry).
- What and how safety functions, activities, and initiatives are coordinated within the FA Division (including FA functions and OMC) and with FHWA Region Offices. Both infrastructure and behavioral safety functions, activities, and initiatives are identified.
- The value adding tasks, functions, and activities related to safety that the FA Division provides.
- The FA Division's method of determining which safety-related tasks, functions, and activities to pursue.
- Any assistance needed from FHWA Region and headquarters offices to improve FA Division highway safety functions.

### ***Methodology***

The team visited nine States and conducted meetings with various agencies and organizations responsible for highway safety improvement programs and projects. The meetings were conducted between March and July 1997. The States visited represented a cross section of the attributes shown on the following two tables.

FHWA Region and FA Division safety staff and NHTSA and FRA Region program managers accompanied the team during the meetings. Their participation added greatly to the discussions.

In each FA Division, the team met with FA Division staff and representatives from the Division OMC.

<b>State</b>	<b><i>Location of Governor's Highway Safety Representative</i></b>
Iowa	Governor's Traffic Safety Bureau (Not DOT)
Arkansas	AHTD, Traffic Services
Virginia	Department of Motor Vehicles (Not DOT)
South Carolina	Department of Public Safety (Not DOT)
Montana	Montana DOT, Planning Department, Division of Traffic Safety
Maine	Bureau of Highway Safety, State of Maine Department of Public Safety (Not DOT)
California	Office of Traffic Safety under Business, Transportation and Housing
Ohio	Ohio Department of Public Safety (Not DOT)
Oregon	Oregon DOT, Transportation Development Branch, Transportation Safety Section

In each State, the team met with those State agencies involved in highway safety. Meetings with DOTs included representatives from the functional areas of design, construction, maintenance, ITS, safety management, bike/pedestrian coordination, planning, traffic operations, Tribal and Intergovernmental Relations, and State agency for Motor Carrier Safety.

The team met with the GRs in the States (in one State, the team met with a high-level official representing the office).

The Rail/Grade Crossing Program is handled by a separate State agency or office in three of the review States. The team met with representatives of the Maine Office of Freight Transportation, the California Public Utilities Commission, and the Ohio Rail Development Commission.

Other State agencies participating in the review were the South Carolina State Transport Police, the Montana Highway Patrol, and the California Highway Patrol.

Representatives from the following local governments participated in the review:

City of Richmond (Virginia), City and County of San Francisco, Metropolitan Transportation Commission (MPO for nine-county Bay Area, California), Lane County (Oregon), Multnomah County (Oregon), Salem-Keizer MPO, (Oregon), Mid-Willamette Valley Council of Governments (Oregon), Metro (Portland, Oregon MPO), City of Salem (Oregon), City of Portland (Oregon), Greater Portland (Maine) Council of Governments

Representatives from the following industry groups participated in the review:

Operation Lifesaver in several States, Drive Smart Virginia, Virginia Trucking Association, South Carolina Trucking Association, South Carolina Insurance News Service, California State Automobile Association (AAA affiliate), American Traffic Safety Services Association, (Oregon/Idaho Chapter), Contra Costa County (California) Injury Control Coalition, Members of Maine Transportation Safety Coalition (representing a large number of interest groups and State and local government agencies).

State	Obligated Federal funds (In thousands of dollars)										Fatalities <sup>1,2</sup>		
	Public road mileage <sup>11</sup>		STP Safety Setaside Programs <sup>13</sup>			All FHWA Programs <sup>14</sup>			NHTSA Section 402 Program <sup>15</sup>			Number 1992 to 1996	Percent of Total
	FY 1996	Percent of Total	FY 1992 through 1996	Percent of Total	FY 1992 through 1996	Percent of Total	FY 1992 through 1996	Percent of Total	FY 1992 through 1996	Percent of Total			
Arkansas	77,746	1.98%	18,770	1.37%	1,225,819	1.24%	6,706	1.15%	2,720	1.46%			
California	170,506	4.35%	97,756	7.14%	9,803,134	9.91%	55,956	9.63%	18,905	10.18%			
Iowa	112,708	2.88%	26,627	1.94%	948,474	0.96%	8,689	1.50%	2,110	1.14%			
Maine	22,577	0.58%	9,084	0.66%	572,092	0.58%	2,909	0.50%	875	0.47%			
Montana	69,809	1.78%	14,402	1.05%	867,160	0.88%	3,855	0.66%	908	0.49%			
Ohio	114,642	2.93%	63,872	4.66%	3,097,568	3.13%	22,290	3.84%	6,445	3.47%			
Oregon	83,190	2.12%	14,562	1.06%	1,231,022	1.24%	8,104	1.40%	2,322	1.25%			
South Carolina	64,359	1.64%	29,747	2.17%	1,228,144	1.24%	8,148	1.40%	3,939	2.12%			
Virginia	69,384	1.77%	22,946	1.68%	2,118,929	2.14%	12,835	2.21%	3,879	2.09%			
Total of All States	3,919,450	100.00%	1,369,282	100.00%	98,949,988	100.00%	580,877	100.00%	185,780	100.00%			

<sup>11</sup>The data reported in this column is from Highway Statistics Table FI-3 for FY 96.

<sup>12</sup>The data reported in this column is from Highway Statistics Table FI-3 for FY 92, 93, 94, 95, and 96.

<sup>13</sup>The data reported in this column is from FHWA financial reports. The numbers total obligations during FY 92 through 96 for Appropriations 138, 139, 141, 33A, 33M, and 33N.

<sup>14</sup>The data reported in this column is from Highway Statistics Table FA4B for FY 92, 93, 94, 95, and 96.

<sup>15</sup>The data reported in this column is the NHTSA Section Obligation Limitation.

The review team conducted interviews with FHWA, FRA, and NHTSA headquarters program offices. The FHWA headquarters program offices interviewed included the OHS, the Office of Engineering, the OMC Field Operations, and R&D, the OTA, and the Office of Planning.

At each of these meetings, the team members stressed that the purpose of the review was to find out what is and is not working, and to seek ways to improve the FA Division's role in improving highway safety. The team stressed at each meeting that this review *was not* a compliance audit or certification review.

Upon concluding the meetings in a State the team conducted a wrap-up meeting with FHWA Region and Division, NHTSA, and FRA Region staff. At a few of these meetings, State DOT personnel expressed an interest and participated in the closeout discussion.

### ***Core review team***

**Mr. Peter Picard**  
Assistant Division Administrator  
FHWA Nebraska Division  
Lincoln, Nebraska

**Ms. Clara Conner**  
Transportation Specialist  
FHWA Office of Program Quality Coordination  
Washington, D.C.

**Mr. Peter Hartman**  
Highway Engineer  
FHWA Office of Highway Safety  
Washington, D.C.

The core review team was assisted by the following liaisons from other Federal agencies:

**Ms. Marlene K. Markison**  
Chief, Program Support Division  
NHTSA, Office of State and Community Services  
Washington, D.C.

**Mr. Louie Del Rio**  
Program Analyst  
FRA, Office of Safety Analysis  
Washington, D.C.

**Mr. Jim Keenan**  
National Field Coordinator  
FHWA Office of Motor Carriers Field Operations  
Washington, D.C.

### **III. Best practices**

A "best practice" is any practice, knowledge, know-how or experience that has proven to be valuable or effective in one organization and that may have applicability to other organizations. (Chevron)	Contact Name	Contact Telephone Number
<b>Highway Safety Professionals — Dedicated Resources</b>		
Position description for safety specialist in Virginia Division.	Carl Modine	(804) 281-5135
Each Caltrans district has a safety liaison position in each of its 12 districts.	Matt Schmitz	(916) 498-5850
The Bay Area MPO (nine-county area) has a safety specialist position (10 percent part-time).	Matt Schmitz	(916) 498-5850
Oregon Division multimodal safety liaison position.	Victoria Kinne	(503) 399-5749
Region 10 commitment for up to 25 percent of FTE in Divisions for multimodal safety liaison.	Victoria Kinne	(503) 399-5749
Oregon Department of Transportation (ODOT) has committed to creating a Regional safety specialist position in each of the five ODOT Regions. One of the five Regions had created this position at time of review.	Victoria Kinne	(503) 399-5749
<b>Networking</b>		
Oregon Safety Action Plan is one of the plans required along with modal plans (for highways, transit) to support the Oregon Transportation Plan. Benefit has been heightened awareness of safety issues. Work on actions is helped because the Action Plan has approval by Oregon Transportation Committee.	Victoria Kinne	(503) 399-5749
"Cops Ahead" program of Montana Highway Patrol (MHP) on Native American reservations. Program cross deputizes MHP and Tribal Officers so that either can cite drivers on the reservation.	Craig Genzlinger	(406) 441-1230
State Director, OMC, was on an intergovernmental personnel assignment with the State Transport Police. Gave them an understanding of Federal perspective and gave Director a perspective of the problems and tasks facing a State agency. During assignment, the Director acted as the deputy director of the State Transport Police. During the assignment the Director went through the State's police academy.	Curtis Thomas	(803) 765-5414

### III. Best practices

<p>Safety specialist is the OTA's project manager for the MARS or National Model/ALERT project. This is the first instance where a project manager for an OTA project is not of OTA staff.</p>	<p>Jack Latterell or Bill Baker, OTA</p>	<p>(515) 233-7323</p>
<p>Motor Carriers regional crash team has identified 10 high-crash locations in each Region 10 State and prepared a brochure for wide distribution to commercial vehicle operators.</p>	<p>Victoria Kinne</p>	<p>(503) 399-5749</p>
<p>Roster for intermodal safety team includes information on safety specialty, responsibility, interests, and membership with safety organizations of the membership of the team.</p>	<p>Aida Berkovitz</p>	<p>(415) 744-2658</p>
<p>CD-ROM of standard drawings for all States in the Region has been created.</p>	<p>Craig Genzlinger or Greg Schertz</p>	<p>(406) 441-1230 (303) 969-5772 ext. 342</p>
<p>Region 3 Safety Task Force Awards. Awards given as needed. Written procedure exists. Regional Administrators for all modes issue and present award. Example: West Virginia Governor for his efforts to get seat belt law passed.</p>	<p>Dean Larsen</p>	<p>(410) 962-0077</p>
<p>Virginia Division traffic management and safety team.</p>	<p>Tom Jennings</p>	<p>(804) 281-5107</p>
<p>Work Zone Safety Working Group includes contractors, 3M representative, city, county, FHWA, MDT — maintenance and construction.</p>	<p>Craig Genzlinger</p>	<p>(406) 441-1230</p>
<p>County engineers conference in Region 8. "You Show Us Some More" Contest. First 3 years had safety focus. Directed to county engineers.</p>	<p>Greg Schertz</p>	<p>(303) 969-5772 ext. 342</p>
<p>Region 8 maintenance engineers' tour. Maintenance engineers from all States in the region tour roads in one of the Region's States annually. Tour takes place over 2 days. Covers new techniques, safety, work zones, etc.</p>	<p>Craig Genzlinger or Greg Schertz</p>	<p>(406) 441-1230 (303) 969-5772 ext. 342</p>
<p>The work zone committee includes the Ohio Contractors Association, Ohio Department of Transportation, and FHWA.</p>	<p>Joe Glinski</p>	<p>(207) 622-8350 ext. 16</p>
<p>FHWA (FA and OMC staff) attend monthly meetings with GR's office to discuss current issues.</p>	<p>Victoria Kinne</p>	<p>(503) 399-5749</p>

### III. Best practices

<p>Iowa Traffic Control and Safety Association (ITCSA) established in 1975 for education, engineering and enforcement in State. More than 150 members including law enforcement, engineers, local governments, etc. Have two conferences each year (approximately 75-100 attendance each), one in the spring the other in the fall. Try to use conferences to develop implementation plans for anything new that is coming out of headquarters or other sources, e.g., No-Zone, Red Light Running. ITCSA is self-governing and self-funded (through dues); it is a nonprofit organization. No fee for conferences. Someone from FA Division serves as FHWA Board member. The FA Division representative is also on the SMS coordinating committee.</p>	<p>Jack Latterell</p>	<p>(515) 233-7323</p>
<p>FHWA has been providing travel funding for regional committee to find all-weather durable pavement markings.</p>	<p>Victoria Kinne</p>	<p>(503) 399-5749</p>
<p>FHWA Region safety coordinator is currently on rotational assignment as NHTSA program manager.</p>	<p>Frank Julian</p>	<p>(404) 562-3689</p>
<p>Highway Traffic Safety Summit in October 1994. One-day meeting had 350 attendees from throughout State. Morning session had workshops to provide background information. Afternoon session reformed groups by geographic region. Groups were asked to identify priorities for highway safety activities. One group chose engineering, one chose new legislation.</p>	<p>Steve Ikerd</p>	<p>(803) 253-3885</p>
<p>"Carolina Forum on Commercial Motor Vehicle and Highway Safety." Signed as a charter by ten agencies, including FHWA. Signatories are cabinet-level for State government agencies. Exemplifies top-down direction for multiagency coordination. Agencies besides the FHWA include Department of Public Safety, Department of Transportation, NHTSA, Department of Education, S.C. Press Association, S.C. Insurance News Service, AAA Carolina Motor Club, and S.C. Trucking Association.</p>	<p>Steve Ikerd</p>	<p>(803) 253-3885</p>
<p><b>Training</b></p>		
<p>Retroreflectivity handbook.</p>	<p>Craig Genzlinger or Greg Schertz</p>	<p>(406) 441-1230 (303) 969-5772 ext. 7-11342</p>
<p>FHWA and VDOT exchange staff for training program.</p>	<p>Carl Modine</p>	<p>(804) 281-5135</p>
<p>Work zone package of signs, flagger vests, etc., for small cities with less than 15,000 population to help them purchase these materials. Funded under 402 program at 90 percent Federal share. The whole package is purchased for about \$2,000 with the city paying \$200 of the cost.</p>	<p>Ronnie Watson</p>	<p>(501) 324-6435</p>

### III. Best practices

<p>Montana found that bringing instructors to the State (under contract with Northwestern University Traffic Institute) was more cost effective than sending engineers in the traffic section of the DOT to the University (in Evanston).</p>	<p>Craig Genzlinger</p>	<p>(406) 441-1230</p>
<p>County-wide local traffic records assessment — trying to increase local officials interaction with each other, internally and externally. Assessments performed for a county by the Ohio Department of Public Safety (ODPS). ODPS identifies locations with significant increase in fatalities. In 1990, staff was hired within ODPS to provide these services in-house and scope was expanded to include education, EMS, public information. They have the capacity of doing 3-4 traffic assessments per year. Several communities are included in each of the county-wide assessments.</p>	<p>Joe Glinski</p>	<p>(614) 469-5877</p>
<p>A team of two experts assesses the status of a locality's enforcement and engineering programs. The program is conducted by the Institute of Transportation Studies of the University of California. The enforcement expert is a retired Deputy Chief of the California Highway Patrol. The engineering expert on the team is a registered traffic engineer with experience in the public and private sectors who has experience as a city traffic engineer and a director of a local department of transportation services. The team's assessment is conducted under the same contract as the Local Transportation Assistance Program for California, which is also administered through the University of California. The assessment is provided upon the request of a locality at no cost to it.</p>	<p>Matt Schmitz</p>	<p>(916) 498-5850</p>
<p>Safety Circuit Rider. The Center for Transportation Research hires an engineer who travels to cities and counties to present 2-3 fairly formal highway safety programs on request. Started in 1989. Promotes analysis of high-crash locations, sign management, and flagger training. Education- rather than review-oriented. Used 402 funds.</p>	<p>Jack Latterell</p>	<p>(515) 233-7323</p>
<p>The Transportation Safety Training Center at the Virginia Commonwealth University provides public safety professionals throughout the State with training and technical assistance. Staff from the Center provide training regionally across the State. Core classes include "Fundamentals of Accident Investigation and Reconstruction," "Advanced Investigation and Reconstruction," and "Traffic Records Analysis." The Center also provides software to aid localities with analysis of their crash data ("Micro Traffic Records System"). The Virginia multidisciplinary crash team is a unit within the Center. The crash investigation team is composed of a civil engineer, a psychologist, and a law enforcement professional.</p>	<p>Carl Modine</p>	<p>(804) 281-5135</p>
<p>Montana Highway Patrol officers participate in work zone training provided by the DOT and FHWA.</p>	<p>Craig Genzlinger</p>	<p>(406) 441-1230</p>

### III. Best practices

FA Division personnel are developing safety training for Caltrans resident engineers, chief inspectors, and maintenance personnel. Also would possibly include contractor and utility personnel. 32 modules have been identified. Trainers would include FHWA, NHTSA, Caltrans district safety specialists.	Matt Schmitz	(916) 498-5850
Work Zone Training courses. Performed last year in October; next year hopes are to do it earlier in the year and to include DOT utility, construction, design staff with AGC, FHWA Region and Division, and State patrol.	Jack Latterell	(515) 233-7323
SCDOT Director announced that all qualified Department personnel will volunteer as substitute teachers in whatever jurisdiction they reside. Once a year they will participate as teachers at whatever schools and levels they feel comfortable with, and deliver a highway safety message. The FA Division has agreed to participate.	Steve Ikerd	(803) 253-3885
OMC/FA orientation for new employees.	Steve Ikerd	(803) 253-3885
Safety specialist trainer at NHTSA's Program Management School.	Steve Ikerd	(803) 253-3885
FHWA Region safety coordinator and FRA grade crossing manager conduct quality improvement reviews of rail-highway grade crossing programs. Approach of reviews is to document best practices. Have identified need for training to understand signal operation.	Frank Julian	(404) 562-3689
Pocket-size booklet for work zone traffic control by SC DOT. Distribute 2,500 - 5,000 copies per year to contractors, municipal public works agencies, utility companies, and others.	Steve Ikerd	(803) 253-3885
Train the trainer program for traffic control workers. University of North Carolina Institute for Transportation Research and Education (ITRE) was training contractor. AGC utility association was involved in development. Contracts are on annual basis for a number of courses (basic, intermediate, advanced, flagger).	Steve Ikerd	(803) 253-3885
<b>Outreach</b>		
Small Communities Program for towns with populations of less than 50,000.	Jack Latterell	(515) 233-7323
California State Automobile Association recently published 20,000 copies of <i>Read Your Road</i> .	Matt Schmitz	(916) 498-5850
Weather reporting project conducted out of University of North Dakota at Grand Forks. Uses #SAFE on cellular telephone and provides route, direction, and a mile marker; traveler gets a weather forecast and road conditions ahead.	Greg Schertz	(303) 969-5772

### **III. Best practices**

Corridor Safety Projects — “safety management systems” for a corridor.		Craig Genzlinger Greg Schertz	(406) 441-1230 (303) 969-5772
AAA started “Safety Villages” — kids on tricycles, signs, village, etc.		Tracey Praul	(207) 622-8350 ext. 16
“Spot ME” is a collaborative project of the Maine Department of Transportation and the Bicycle Coalition of Maine to identify low-cost spot improvements to highways. Cyclists report problems on postage-paid postcards that are pre-addressed to central DOT office. This office sends them to appropriate State or local agencies for action. Could be maintenance or new project. Central office sends immediate response back to sender and tracks follow-up action.		Matt Schmitz	(916) 498-5850
Hazard Reporting Form is used for bicyclists to report safety hazards they encounter.		Jack Latterell	(515) 233-7323
Public Information Program was started with a few PSAs. Uses 0.5 percent money for information campaigns. GR will not allow purchase of media time with Section 402 money. Therefore, the only way to buy media time is the 0.5 percent funds. FA Division helpful in RFP process to contract with an advertising agency to produce “Expect the Unexpected in a Work Zone” PSA targeted for schools (levels K-12).		Jack Latterell	(515) 233-7323
Know Your Way Around — series of brochures, maps, major construction areas, some PSAs. These show the construction areas statewide and separately in the Des Moines area. Distributed to rest areas, motels, service stations, etc. Paid for mostly from construction funds.		Steve Ikerd	(803) 253-3885
Community traffic safety — Red Light Running - relationship with Chamber of Commerce.		Steve Ikerd	(803) 253-3885
“Miles the Highway Stripe” is a series of PSAs for proper driving and restraint usage. This campaign ran for 3 years.		Steve Ikerd	(803) 253-3885
Highways or Dieways won over 100 national awards as highway safety campaign. The reduction of number of crashes and fatalities in the State is attributed this campaign. Everything else seemed to stay constant.		Steve Ikerd	(803) 253-3885
State Highway Emergency Patrol (SHEP) are specially equipped vehicles that operate during rush areas to assist emergency response agencies and motorists with disabled vehicles.		Steve Ikerd	(803) 253-3885
Roadway Safety Foundation — videotape “Making Safer Roads” by the Insurance Institute for Highway Safety.		Carl Modine	(804) 281-5135



### III. Best practices

<p>The prioritization of projects funded through the Hazard Elimination Program in Virginia. The process allows all political subdivisions (local governments and VDOT residencies) to submit proposals for safety projects funded by VDOT. Application requires gathering and submission of police accident reports so that applications are based on documented need. A marketing brochure has been created to explain the STP Safety Setaside Program to local governments.</p>	<p>Carl Modine</p>	<p>(804) 281-5135</p>
<p>Concurrent review of railroad-grade crossing safety projects. Result has been that grade crossing projects take 1 year instead of 2 to complete.</p>	<p>Joe Glinski</p>	<p>(614) 469-5877</p>
<p>Generic project for crossing closures is included on the State Transportation Improvement Program (STIP). The idea is that a project is always programmed so that when a crossing closure agreement is reached, money is available. Before efforts culminating in agreement with locals would be put on hold waiting for funding to be programmed.</p>	<p>Tracey Praul</p>	<p>(207) 622-8350 ext. 16</p>
<p>Signal maintenance cost sharing at rail-highway crossings. Iowa sets aside \$700,000 of State funds annually to provide up to 75 percent of the cost of maintaining signals added since 1973, when the Section 130 program began. The last allocation resulted in distributions of \$547 per crossing to 1278 eligible crossings, constitute about 48 percent of the maintenance costs.</p>	<p>Jack Latterell</p>	<p>(515) 233-7323</p>
<p><b>Crash Data</b></p>		
<p>Working with judicial system to include an adjudication component for crash citations. Intent is to use citations to update court dockets nightly.</p>	<p>Joe Glinski</p>	<p>(614) 469-5877</p>
<p>Ohio Department of Transportation, as part of statewide re-inventory of roads, has offered to all MPOs, counties, and localities over 5,000 that they will inventory local roads when doing State roads.</p>	<p>Joe Glinski</p>	<p>(614) 469-5877</p>
<p>Public domain tool kit for enforcement to locate crashes or other events.</p>	<p>Joe Glinski</p>	<p>(614) 469-5877</p>
<p>The Ohio Department of Public Safety has done some limited comparisons of crash data to health care admissions and to railroad incident data.</p>	<p>Joe Glinski</p>	<p>(614) 469-5877</p>
<p>Weekly Crash Facts for State.</p>	<p>Carl Modine</p>	<p>(804) 281-5135</p>
<p>PC-ALAS, Accident Location and Analysis System.</p>	<p>Jack Latterell</p>	<p>(515) 233-7323</p>

### **III. Best practices**

Mobile Accident Record System (MARS) was started in 1991 with FHWA and NHTSA participation. Pen-based computer system in enforcement vehicles to record crash report information.	Jack Latterell	(515) 233-7323
<b>Work Zones</b>		
DOT Maintenance Division uses surplus vehicles for shadow vehicles with TMA's and arrow boards. Because vehicles have been surplus, they are not part of accountable fleet; there is no incentive to use them for other purposes.	Craig Genzlinger	(406) 441-1230
ODOT District has identified the minimum number of lanes by sections of highway system to remain open at all times. Sections and lanes are identified by time of day.	Joe Glinski	(614) 469-5877
VDOT has three people dedicated to work zones. Responsible for work zone supervisor training for VDOT and contractor employees, State manual, flagger certification, and review work zones.	Carl Modine	(804) 281-5135
Virginia DOT has developed a computer program to document the work zone (what is in place and when) that can be stored to defend themselves in case of liability for an accident, etc.	Carl Modine	(804) 281-5135
<b>Roadway Issues (geometric design, roadside and appurtenances, guardrail upgrading)</b>		
Arkansas has acquired one thermoplastic machine for pavement markings for use statewide. AHTD does all highway striping of highways except for construction projects. Have found that thin-line thermoplastic is almost as cheap as painting.	Ronnie Watson	(501) 324-6435
Index of approved NCHRP 230 and 350 devices by category of device.	Joe Glinski	(614) 469-5877
Caltrans Highway Safety Features New Products Committee reviews and approves roadside devices for application in California, approval level beyond FHWA's acceptance letter. The Committee has representatives of several divisions within Caltrans. They also look at maintenance expectations and other factors to decide if it's something they want to install in the field for a live test. Will go to experimental status for a certain period of time (or hits). Usually these are permanent features, such as crash cushions, end terminals, etc.	Matt Schmitz	(916) 498-5850
Midwest Roadside Crash Test Research Facility. This is pooled fund project for crash testing. It is currently sponsored by eight States.	John Ballantyne	(515) 233-7323

**III. Best practices**

Maintenance of Roadside Safety Devices. Buying more than 100 laptop computers to document and inventory all roadside safety devices.	Jack Latterell	(515) 233-7323
AHTD's inspection program of overhead sign structures that found substantial problems. Bridge inspection now routinely includes overhead sign structures.	George Holt	(501) 324-5356

## **IV. Examples of safety specialists' duties**

The review team identified the "expected" duties of the safety specialists through a review of position descriptions and interviews with the safety specialists and their partners. The duties are as varied as how and with whom they are carried out.

### **STP Safety Setaside Programs**

All of the safety specialists have some responsibility for the STP Safety Setaside Programs (the hazard elimination program and the rail/highway grade crossing program). The safety specialist's involvement varies *from* a cursory review of the programs and annual Highway Safety Improvement Program reports *to* specific process improvement efforts through program reviews and teams *to* heavy involvement on a project-by-project basis.

Projects funded through these programs are typically less than \$1 million or are not on the National Highway System (NHS) and all DOTs exercise full exemption. Therefore, FA office's (field operations' or safety specialist's) involvement in projects is minimal unless requested by the DOT. In two States, the DOT requested the safety specialist to approve the projects included in the STP Safety Setaside Programs. In a third State, the DOT has modified its full exemption agreement so that the FA Division now is involved in previously exempted projects in the NHS.

In most States, the STP Safety Setaside Program funds were the only source of funding for projects specifically for highway safety improvements. A couple of DOTs augment the STP Safety Setaside Program funding with additional STP funding from outside the safety setaside categories.

### **Railroad/Highway Grade Crossing Program**

In two of the States visited, the railroad/highway grade crossing program and projects are the responsibility of organizations outside the DOT. In one of these States, the safety specialist actively works with both the DOT and railroad agency to improve grade crossings. In another, the safety specialist is new and therefore has not had time to develop a relationship with the railroad agency.

*"Need to have the FHWA Division think outside the 'box'."*  
A GR

The State with the proactive safety specialist is also the State with the greatest emphasis on grade crossings. The safety specialist helped develop a concurrent review of railroad-grade crossing safety projects. The result of

the concurrent reviews has been to halve the time for grade crossing projects implementation, from 2 years to 1. This was also the only State in which the safety specialist routinely participated in diagnostic reviews.

In some States, the FA Division is actively involved in Operation Lifesaver.<sup>16</sup> In one State, the safety specialist is a member of the Engineering Subcommittee for Operation Lifesaver. In another State, the previous safety specialist was an Operation Lifesaver presenter and the new safety specialist intends to take on this role. In the State with the multimodal liaison, the liaison attends Operation Lifesaver director's meetings. The liaison has been trained as an Operation Lifesaver presenter.

## ***Hazard Elimination Program***

In two FA Divisions, safety specialists are approving individual projects for funding at the DOT's request. In one State, the DOT wanted neutral input; in the other, the DOT doesn't have a prioritization process.

Two DOTs have revised their programs (including project selection and prioritization processes) in recent years. In one of these States, the safety specialist participated on a DOT committee to revise the program. In the other State, the revision resulted from a program review conducted by the FA Division.

In three of the States reviewed, local governments are involved significantly in the project identification process. In two States, local public agencies may submit applications for hazard elimination projects on any public street or highway for locations that meet criteria for number of crashes. The projects submitted by local agencies are included in a statewide evaluation and are regularly selected for implementation.

## ***Highway Safety (402) Program - FHWA or 3+ Responsibilities***

In six Regions, the administration of the 402 3+ program was changed in the last year. The changes generally streamlined the administrative process for Federal oversight. The nature of the streamlining varies by Region. In one State, the FHWA Division Administrator and the NHTSA Regional Administrator sign a joint letter authorizing obligation of funds; they no longer "approve" the 402 program. In three States, the NHTSA administers the entire 402 program. The FHWA Region office for one of these States expressed some concern that under the new procedures, it may be more difficult for the FA Division to raise engineering concerns. It also may be more difficult to relay concerns in States where the FA Division is aware of concerns by potential 402 program grantees about the use of this program.

The relationship between the safety specialist and NHTSA program managers varies. In most of the States visited, this relationship is regular and active. In one State, a strong and very positive relationship was noted between the safety specialist and a NHTSA program manager to assist the

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<sup>16</sup>Operation Lifesaver is a nationwide, nonprofit public information program dedicated to reducing collisions, injuries, and fatalities at highway-rail grade crossings and on railroad rights-of-way. Volunteer members of Operation Lifesaver include Federal, State, and local governments, and others. The FHWA contributes funding annually to the headquarters organization.

GR's office for that State. At the request of the GR's office, both have been extensively involved in the 402 program. The GR's office felt that their involvement provided an objective review of grant applications.

In another State the safety specialist admitted little involvement with the GR's office due to the size of the 402 3+ program. Two other GR's noted little involvement by the FA Division before the current safety specialists. In both of these States, the GR's office noted significant interest and willingness by the safety specialists to be involved in statewide highway safety improvement activities. In another State, the safety specialist and a Division OMC representative attends a monthly meeting held by the GR's office to discuss current issues. Still another, has been actively promoting innovative uses of 3+ funding.

Across the review States, DOTs and GRs noted a number of unique uses of 402 3+ funding that resulted from the safety specialists' involvement, as follows:

- Highway Traffic Summit
- Work Zone enforcement
- Safety Training Center (with other sources of funding)
- Railroad/Highway Grade Crossing Running Campaign, week-long effort in four counties
- Corridor projects, including funding for a position to oversee projects
- Work Zone Traffic Control package for small cities (one State has added a training component)
- Engineering and enforcement reviews provided at the request of local governments
- Traffic safety assessment for a county

## ***Work zones***

In all the States, improving safety in work zones was a significant activity in the FA Divisions. Activities included efforts to fund enforcement in work zones on FA projects, involvement in the annual work zone reviews,<sup>17</sup> promoting certification of flaggers and work zone supervisors, and sponsoring or providing work zone training. In general, the safety specialists' role that partners value is to bring technical expertise to field reviews and to suggest techniques used in other States.

Specifically, through FA Division involvement in one State, annual work zone team reviews have been remodeled. Rather than scheduled reviews of current FA construction projects, the review team now looks randomly (unannounced) at State, FA, and local projects and other work zone activities. Observations are used in winter work zone training programs.

In another State, maintenance reviews with FHWA participation identified the need for work zone training. The safety specialist and the DOT maintenance staff have conducted 50-60 sessions of work zone training statewide. The course was developed by the FHWA Region and the FA Division. It was based on an existing course that was customized to meet State maintenance needs. The course includes the use of small models so that participants can set up

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<sup>17</sup>Required by 23 CFR 630.1010(e).

their own work zones on a “project.” The courses are conducted for State and county maintenance personnel and for highway patrol officers, who also participate on work zone reviews in this State.

In one Region, FHWA sponsors a maintenance engineers’ tour. Each year representatives from States (and some FA Divisions) in the Region tour one State. Participants have the opportunity to see new techniques, work zone traffic control methods, and other highway safety-related activities.

One State has a Work Zone Safety Working Group. Members include contractors; 3M, city, and county representatives; a safety specialist; and maintenance and construction staff of the DOT. The Group recommended doubling fines in work zones, a suggestion that has since been approved by the legislature. The Group also recommended training for flaggers and traffic control supervisors, which has been obtained.

In one State, the contractors’ association initiated a group to improve the quality of work zone traffic control. The group includes the safety specialist and DOT representatives. The group has formed subcommittees. The technical subcommittee for communications and design has representatives from AAA, Highway Patrol, ATSSA, and the State’s trucking association. The communications subcommittee also recommended that a public information plan be required for each highway construction project. The design committee has recommended a number of policy changes.

Many States recognized a need to train many partners (government, contractors) in work zone traffic control. Each State felt that training should be State specific; some could be done by video to keep costs down and to be available to new staff as needed.

## ***Safety research and safety technology transfer***

DOTs feel that sharing Federal research data on highway safety (and work zones in particular) is a critical role for FHWA. The DOTs expressed satisfaction with the safety specialists’ responsiveness to specific requests.

One safety specialist serves as the first project manager for the FHWA OTA who is not OTA staff. This effort has been viewed as a success by the OTA, the FA Division, and participating State agencies. By serving as a project manager, the safety specialist is in a unique position to be a national expert or point of contact for a new technology.

*“We need to be able to get more access to the technical experts who can educate the States on current technical practice.”*

*A DOT representative*

In another State the safety specialist and DOT’s traffic engineer are coordinators of a research panel and technical group to get quantitative measures for service life of pavement markings.

## ***Roadway issues (geometric design, roadside and appurtenances, guardrail upgrading)***

All DOTs discussed the safety specialist's assistance in providing the DOT with current information on devices that have been successfully crash tested and on current technical information on appurtenances. Various States have unique concerns on how to improve clear zones, side slopes, or median crossings, for which they utilized the safety specialist's assistance.

In three States, the DOT relies on the safety specialist to maintain a complete list of approved NCHRP Reports 230 and 350 devices. The safety specialist in one of these has created an index by type of device, which makes information easier to retrieve.

The DOTs in two States noted the safety specialist's assistance in working out a public interest finding for statewide use of a proprietary guardrail end treatment.

In one Region, a Regional committee is trying to develop specifications for durable pavement marking materials. FHWA has provided ex officio membership and travel funding to get the members of the committee to States to view new developments in the field. Elsewhere, a safety specialist has been involved in task forces for durable pavement markings.

In decentralized DOTs particularly, the DOT and the FA Division feel that the FA Division can help note where various districts or Regions of the State may need assistance with technical issues. In one State, the FA Division has seen wide variation among the Districts in guardrail maintenance.

One FHWA Region recently conducted a meeting with States, FA Divisions, contractors, and installers about hardware requirements and standardization. A former Regional safety specialist provided training on safety hardware to one of the DOTs in the Region. The current Regional safety coordinator modified the FHWA safety design course, incorporating the DOT's maintenance practices.

Little mention was made of direct involvement with partners other than DOTs on roadway issues. However, in a State with toll facilities on the NHS, the safety specialist provides the toll facility along with the DOT and the technology transfer center, a notebook of currently approved devices. Interaction by the FA Division with partners other than the DOTs on these kinds of issues appears to be more frequent through training and multiagency safety coalitions. Both are described later on in this section. The safety specialist and traffic operations engineer in one FA Division noted that they spend a considerable amount of time with local governments since about 75 percent of the State's fatality rate occurs on the local roads. They consider local governments, consultants, and industry salespersons to be as important as the DOT and spend as much time with them as DOT.

## ***Standards (standard drawings, design manual, MUTCD)***

As with roadway issues, the DOTs noted how the safety specialists are involved in updating standards, many of which relate to highway safety issues. In some instances, the safety specialist is a member of the DOT's committees to review or rewrite standards or policies. Many of the safety specialists are key reviewers prior to FHWA approval of new or revised standards.

This is another area where DOTs look to FHWA to be a conduit for finding out how other States are treating similar issues. In one Region, the standard drawings for all States in the Region have been put on CD-ROM by the FHWA Regional safety team.

## ***Specific examples of training assistance and networking by safety specialists***

As noted earlier, observations from work zone reviews in one State are used as input in the work zone training program. This program was started with 402 funding. The safety specialist is one of the instructors. Now primarily State funded, participants pay only a \$25 registration fee.

In one State, the safety specialist and a DOT person responsible for standards are developing training in NCHRP Report 350 standards and their applicability to the DOT district design and construction personnel. The schedule is for a pilot presentation in the DOT central office this year and sessions in each DOT district next year.

One of the review States was the first to have a program management school for 402 grantees. The safety specialist was one of the instructors.

Examples of networking are described in the following table:

<i>State</i>	<i>Examples of Networking</i>
A	The safety specialist and a NHTSA program manager served on an Executive Steering Committee of the GR's office. The Committee conducted a <b>Highway Traffic Safety Summit</b> in October 1994. With reorganization of the GR's office, another Summit has not yet been planned, although the GR's office would like to plan another. The GR's office noted the support of the FHWA Division Administrator for the Summit. The Summit was a one-day meeting of highway safety advocates in the State. The morning session had workshops to provide attendees with background information on highway safety in the State. Groups organized by geographic area met in the afternoon session and were charged with identifying the best ways to impact traffic safety in their areas. One group chose engineering; another chose new legislation. The intent and result was to identify the priorities for highway safety activities in the State. 350 people attended the Summit.

<i>State</i>	<i>Examples of Networking</i>
B	<p>The DOT credited the FA Division with playing a major role in establishing a coordinating committee of the major highway safety advocates. This committee became the <b>SMS steering committee</b>, which meets quarterly.</p>
C	<p>In one FA Division, safety duties are addressed by both the safety specialist and the traffic operations engineer. Both believe they have built a very deep network across the State through active participation in many activities. Their current efforts are noted below.</p> <ul style="list-style-type: none"> <li>• A <b>Traffic Control and Safety Association</b> was established in 1975 for education, engineering, and enforcement professionals in the State. The Association is self-governing and self-funded (through dues). Its membership includes law enforcement and engineers from all levels of government. The Association currently has more than 150 members. The Association sponsors two conferences each year. About 75-100 people attend each conference. The FA Division safety staff recently used the conferences to develop implementation plans for new FHWA initiatives such as No-Zone or Red Light Running. One of the two FA Division safety staff members serves as a board member for the Association. The FHWA member on the Association's board is also a member of the SMS coordination committee.</li> <li>• The <b>SMS coordination committee</b> is a technical standing committee to oversee the SMS and chart its general direction and activities. The committee meets monthly. The committee's membership includes "a diverse and fundamentally autonomous collection of public and private agencies and groups."<sup>18</sup> The DOT serves as the lead agency. The safety specialist and the State Director, OMC, are representatives on the SMS coordination committee.</li> <li>• The safety specialist is also a member of the <b>Statewide Traffic Records Advisory Committee (STRAC)</b>. The committee met monthly until the strategic plan for highway records information system was complete. Currently they meet about quarterly.</li> <li>• The safety specialist participates in the <b>monthly staff meetings of the GR's office</b>, which includes 402 program contractors. The safety specialist believes that the time and effort invested in the 402 program, even though it is a small program, are well spent for the payback.</li> <li>• The safety specialist and traffic operations engineer were catalysts for a <b>corridor high-crash multidisciplinary team</b> in a metropolitan area. The FA Division supports this team because they see the DOT as more focused on rural areas. The FA Division feels that this is an example of an initiative applicable to all metropolitan areas. Demonstration Project 66 funds were used to support the effort.</li> </ul>

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<sup>18</sup>Work Plan for Safety Management System

<i>State</i>	<i>Examples of Networking</i>
D	<p>This State had the <b>multimodal safety liaison</b> position described previously. The multimodal safety liaison views one of his/her three roles as building highway safety coalitions in the State. The GR's office noted better coordination among FHWA, NHTSA, the GR's office, and the DOT engineering offices through the efforts of the multimodal safety liaison.</p> <p>Both the safety specialist and the multimodal safety liaison attend monthly meetings of the State's <b>Interagency Informal Transportation Safety committee meetings</b>. The group is composed of members from the DOT (including the GR's office and the motor carrier transportation branch), the State Department of Motor Vehicles, the State Police, the OMC, and the FA Division.</p>
E	<p>After attending a <b>Moving Kids Safely Conference</b> elsewhere in the region, the GR, DOT, and safety specialist became interested in having a Conference in their State. The FA Division was credited with coming up with most of the money for the conference (OTA funding). The safety specialist was instrumental in building the coalition and putting on the conference recently in the State.</p> <p>Invitees to the conference were originally the education subcommittee of the SMS steering committee, but many more were added to take advantage of special expertise and interest. Attendees at the conference included the following organizations: [State] Bureau of Insurance, [State] Association for Pupil Transportation, Operation Lifesaver, [State] Bureau of Health, Coalition for Safe Kids, GR's office, MPO for largest city in the State, [State] Motor Transport Association, [State] Professional Drivers Association, DOT, Community Concepts, Inc., Medical Care Development, State Police, the [State] Safety Council, the FHWA, and NHTSA.</p> <p>As a result of the conference, the GR's office received fifteen 402 grant applications during the first week after the conference. <b>The group attending the conference believe that they are the start of a network of highway safety advocates in the State.</b> They are now interested in identifying where the problems are in the State and getting beyond individual or organization perspectives. They can see available funding of various organizations and agencies used more effectively by identifying common goals. In recognizing what various organizations of the network do, they believe that members can promote one another. The group members see themselves as a resource for local community groups to do more locally focused programs, e.g., bike safety. The group would like to begin conducting an annual event in the State.</p>

<i>State</i>	<i>Examples of Networking</i>
F	<p>Despite the determination that a SMS will not be pursued in this State, <b>the safety specialist has initiated quarterly highway safety coordinating meetings of State agencies.</b> The first meeting, which was held recently, involved the OMC, the DOT, the GR's office, and the State agency responsible for railroads. Future meetings will include NHTSA, FRA, and other State agencies. The DOT and GR's office credited the safety specialist for initiating these meetings, which build from the original SMS effort. Given the current political climate for SMS in this large State, State agencies feel that informal networking of this kind is more acceptable.</p> <p>The safety specialist or a field operations engineer from the FA Division tries to be a member of the DOT's <b>District Safety Review Teams.</b> These are multidisciplinary Teams that include design, traffic operations, and construction or maintenance district personnel. The DOT values the FA Division's participation because their involvement brings insight from other DOT districts. Also, the DOT feels that the FA Division participation brings a new, fresh perspective.</p> <p>The safety specialist attends meetings of the <b>State contractors' association.</b> The FA Division ITS and Traffic Operations Engineer attend meetings of the local ATTSA Chapter.</p>

## ***V. Status of safety management systems in review States***

A Safety Management System (SMS) is a systematic process to reduce the number and severity of traffic crashes. An SMS ensures that all opportunities to improve highway safety are identified, considered, implemented as appropriate, and evaluated in all phases of highway planning, design, construction, maintenance, and operation. A SMS should be designed to assist decision-makers in selecting cost-effective strategies/actions to improve the safety and efficiency of the Nation's transportation system. A SMS is to cover all public roads, vehicles, and drivers.<sup>19</sup> The recommended approach to SMS includes eight key elements:

1. Establishment of short-and long-term highway safety goals to address both existing and anticipated safety problems as well as substandard highway locations, designs, and features, and to allocate resources.
2. Establishment of accountability by identifying and defining the safety responsibilities of units and positions.
3. Recognition of institutional and organizational initiatives through identification of disciplines involved in highway safety at the State and local levels; assessment of multiagency responsibilities and accountability; and establishment of coordination, cooperation, and communication mechanisms.
4. Collection, maintenance, and dissemination of data necessary for identifying problems and determining improvement needs. Databases and data sharing will be integrated as necessary to achieve maximum utilization of existing and new data within and among the agencies responsible for the roadway, human, and vehicle safety elements. These records, at a minimum, will consist of information pertaining to crashes, traffic (including number of trains at highway-rail crossings), pedestrians, enforcement activities, vehicles, bicyclists, drivers, highways, and medical services.
5. Analysis of available data and multidisciplinary and operational investigations, and comparisons of existing conditions and current standards to assess highway safety needs, select countermeasures, and set priorities.
6. Evaluation of the effectiveness of activities that relate to highway safety performance to guide future decisions.
7. Development and implementation of public information and education activities to educate and inform the public on safety needs, programs, and countermeasures that affect safety on the Nation's highways.
8. Identification of skills, resources, and current and future training needs to implement the

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<sup>19</sup>SMS definition from SMS Implementation Workshop Proceedings, March 1994.

State's activities and programs affecting highway safety; development of a program to carry out necessary training; and development of methods for monitoring and disseminating new technology and incorporating effective results.

The National Highway Systems Designation Act of 1995 made SMSs optional. Nevertheless, the FHWA has committed to continue to aggressively promote and support the development of SMSs in all States. The FHWA and NHTSA are showcasing best practices and providing training to ensure that all States take advantage of SMS benefits. The FHWA intends to encourage States to continue to implement SMSs. In addition, the FHWA continues to support and encourage development of SMSs through training courses. The OTA is currently sponsoring sessions of the "Case Studies of Highway Safety Management Systems (An SMS Workshop)." The National Highway Institute is developing through the Texas Transportation Institute "an Advanced Safety Management Course."

The current status of SMSs in the States reviewed is as follows:

## ***Iowa***

A SMS is continuing in Iowa. The Iowa Department of Transportation, Engineering Division, is the lead agency for the SMS. The SMS Coordination Committee oversees the SMS by identifying priorities and appointing task forces to work on individual issues. The SMS coordination committee is interdisciplinary and meets monthly. The safety specialist and the State director, Division OMC, are the FHWA representatives on the Coordination Committee. The coordination committee creates task forces to deal with identified needs. Criteria for needs include the number and types of crashes or what is currently being done to address crashes. Other needs have been identified as a result of an emerging issues to which none of the constituent State agencies react quickly. For example, a speed limit task force was created to provide information to the Legislature regarding the impact of raising the speed limit. Another task force is the Statewide Traffic Records Advisory Committee (STRAC), which is handling the SMS treatment of traffic records.

## ***Arkansas***

The Arkansas Department of Highways and Transportation has advised the FA Division that it will continue the emphasis on safety as in the past, but will not develop a formal SMS as envisioned by ISTEA. There is an SMS working group, but it meets once a year. The working grouping includes FHWA, NHTSA, Health, EMS, and State Police.

One MPO (West Memphis) is continuing an SMS locally.

## ***Virginia***

Virginia is continuing an SMS. The goals of SMS in Virginia are to

- apply a coordinated, integrated, and systematic management approach to minimizing the risk of traffic fatalities, injuries, and crashes;

- coordinate transportation safety efforts in emergency medical services, education, enforcement, and engineering;
- improve the quality of Virginia's vehicles, drivers, and driving environment with respect to safety;
- identify traffic safety problems, establish priorities for addressing those problems, and implement countermeasure programs to reduce the risk of traffic fatalities, injuries, and crashes;
- ensure the early consideration of safety in all highway transportation programs and projects; and
- establish a plan for sharing data and integrating data systems among agencies involved in providing for highway safety.

The SMS is a series of committees and task groups. The Executive Committee includes the Virginia Department of Transportation, Virginia Department of Motor Vehicles, Virginia State Police, Commission on Virginia Alcohol Safety Action Program (VASAP), Virginia Department of Health, and a large group of agency liaisons including the FHWA Division, NHTSA Region office, MPOs, and other State agencies. The Executive Committee meets quarterly.

## ***South Carolina***

The South Carolina Department of Public Safety (SCDPS) was designated as the lead for SMS shortly after State government restructuring, which created the agency. The agency did not actively pursue a SMS (as a priority by the agency). All efforts ceased when SMS was no longer mandated. There appears to be agreement by the FHWA Division, SCDOT, and SCDPS to reconstitute the SMS steering and coordinating committees. In fact, re-establishing an SMS may serve as a catalyst for renewing relationships between the SCDOT and SCDPS.

## ***Montana***

Montana is pursuing a SMS. The following goals for the SMS were established in 1994:

1. Make safety a top priority on roadway transportation systems in Montana through a multidisciplinary approach.
2. Promote traffic safety in all transportation-related programs.
3. Establish a partnership among the leaders involved in transportation safety. Provide a multidisciplinary approach for the review and coordination of transportation safety programs.
4. Share analyses, new traffic safety devices information, and successful safety programs among the partnership members. Promote transportation safety strategies. Distribute information, generate support, and provide traffic safety assistance to Federal, State, and

local jurisdictions, agencies, organizations, and the general public.

5. Identify crash locations with high crash frequencies, analyze their causes, and initiate corrective measures to reduce or eliminate their occurrence.
6. Improve transportation safety for elderly persons, pedestrians, bicyclists, motorcyclists, and physically challenged persons.
7. Integrate the SMS with other management systems to assist the decision making process.

The Steering committee includes members — DOT: Planning, Engineering, Maintenance; Head of Montana Highway Police; FHWA safety specialist; Office of Public Instruction; Association of Counties, cities and towns, Indian Affairs, NHTSA, OMC and MDT Office of Motor Carriers. The GR believes that the success of SMS has been increased sharing of information — not duplicating efforts. The steering committee meets 4-5 times per year. A recent product of an SMS task group was a report recommending corrective measures for a high crash section of the Interstate crossing into an adjoining State.

## ***Maine***

A section of the DOT is the safety management section. A SMS has recently been formalized with a steering committee and four subcommittees. The four subcommittees are education, information services, enforcement services, and emergency services.

There is also an effort to form a coalition of highway safety advocates in the State. A Moving Kids Safely conference was the catalyst for identifying and bringing the advocates together. The group has formalized itself into the Maine Transportation Safety Coalition, a nonprofit organization. The Coalition recently developed goals, objectives, strategies, and an activity plan. The Board of Directors includes representatives from a wide range of government, private, and nonprofit organizations in the State.

## ***California***

California was one of the first States interested in and to support the idea of a SMS. However, when SMS was no longer mandatory, the State formally continued to support, but effectively there have been no further meetings. Realistically, it has been difficult to build a working coalition because of the size and number of State and local government agencies and interest groups. The Office of Traffic Safety is supporting corridor projects, which it views as SMS on a local scale.

## ***Ohio***

Development of a SMS is not active in Ohio. However, the FHWA safety specialist has initiated quarterly coordinating meetings for representatives of the key agencies that would be involved in an SMS. The first meeting involved the Division OMC, the Ohio Department of Transportation (ODOT), the Ohio Department of Public Safety (OPDS), the Ohio Rail Development Commission, and the FHWA. Future meetings will include representatives from NHTSA, FRA,

the Public Utilities Commission, and the Ohio Public Works Commission. Feedback from the ODOT and the ODPS on initiating these meetings was positive. Even though the SMS is not officially active, the original round of building relationships was worthwhile. The quarterly meetings are viewed as a way for the agencies to maintain a current understanding of the others' efforts.

## **Oregon**

The formal position of the State is that an SMS formal position will be continued, but effort has been effectively cut way back. Unrelated difficulties with crash data systems have had an impact on how problems are identified. Oregon is unique in that it has created a Safety Action Plan. The Plan identifies 70 actions across transportation modes.<sup>20</sup> It also identifies 17 performance measures for safety.

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<sup>20</sup>The 70 actions are grouped in the following areas: enforcement; public awareness, education, and training; facility design, construction, and maintenance; emergency medical services; interagency cooperation; transportation records; impaired and high risk operators; transportation system user safety and security; truck safety; rail safety; navigational conflicts; and transit, pedestrian, and bicycle safety.

## ***VI. Acronyms***

- ▶ AAA— American Automobile Association
- ▶ CVO— Commercial Vehicle Operations
- ▶ DOT —State Department of Transportation
- ▶ FA — Federal-aid
- ▶ FHWA — Federal Highway Administration
- ▶ FLHO —Federal Lands Highway Office
- ▶ FRA— Federal Railroad Administration
- ▶ FTA — Federal Transit Administration
- ▶ FTE— Full Time Equivalent
- ▶ GPRA — Government Performance and Results Act
- ▶ GR — Governor’s Highway Safety Representative
- ▶ ISTEA— Intermodal Surface Transportation Efficiency Act of 1991
- ▶ ITS— Intelligent Transportation Systems
- ▶ MPO— Metropolitan Planning Organization
- ▶ MUTCD— Manual on Uniform Traffic Control Devices
- ▶ NCHRP— National Cooperative Highway Research Program
- ▶ NHS — National Highway System
- ▶ NHTSA — National Highway Traffic Safety Administration
- ▶ OHS— Office of Highway Safety
- ▶ OMC — Office of Motor Carriers
- ▶ OTA— Office of Technology Applications
- ▶ R&D— Office of Safety and Traffic Operations Research and Development
- ▶ SACP —Safety Assurance and Compliance Program
- ▶ SMS — Safety Management System
- ▶ STP — Surface Transportation Program
- ▶ USDOT— United States Department of Transportation