



EVALUATION OF THE FOCUSED APPROACH TO PEDESTRIAN SAFETY PROGRAM

PREPARED FOR THE
FEDERAL HIGHWAY ADMINISTRATION
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Executive Summary

This report summarizes the results of an evaluation of the Federal Highway Administration (FHWA) Focused Approach to Pedestrian Safety Program. The study was done by the Volpe National Transportation Systems Center at the request of the FHWA Office of Safety (HSA). Five of the 19 “focus” locations were chosen for this evaluation based on geographic diversity, number and types of Program activities, and the availability of data about Program implementation. The study consisted of semi-structured telephone interviews with 29 pedestrian safety stakeholders (mostly from government agencies) across the five locations.

The key findings from the study are:

- Being designated a focus location by the FHWA helped raise awareness of pedestrian safety problems and gave them a legitimacy not had previously. It also helped draw attention and resources to generate momentum for addressing pedestrian issues.
- Participants found the course offerings, technical assistance, conference calls, and web conferences valuable for:
 - Improving participants’ understanding of and attitudes toward pedestrian safety.
 - Increasing participants’ ability and confidence to advocate for pedestrian safety improvements.
 - Communicating practical techniques for improving pedestrian safety.
- Demand for the course offerings far exceeded their capacity.
- Several focus locations have developed follow-on pedestrian safety training, primarily with the assistance of the FHWA Resource Center.
- The mix of professions represented in the courses—both within transportation agencies and between transportation agencies and other state and local agencies, especially public health and law enforcement—fostered relationships among attendees that have been helpful in continuing to address pedestrian safety problems.
- Most focus locations have implemented or are planning to implement countermeasures and initiatives that will improve pedestrian safety. In some locations, this involves developing statewide or regional pedestrian safety plans. Each location also mentioned some practical strategies being planned or already in use based on content from the courses. These were generally small-scale changes such as installing pedestrian countdown timers or improving striping at crosswalks. Several locations are planning substantial improvements such as infrastructure changes for traffic calming or installing pedestrian refuge islands.
- The Program has also spurred changes in policies, business processes, and institutional structures focused on pedestrian safety.

The main recommendations for improvements to the Focused Approach to Pedestrian Safety are:

- Offer more courses.
- Offer courses regularly so that new employees can be trained as they are hired.
- Create course content that can be easily customized to meet the specific needs of the intended audiences.
- Explore educational strategies other than the courses, conference calls, and technical assistance (e.g., web-based learning, peer learning).
- Develop outreach and education strategies and materials for FHWA division offices to distribute in their states. This could include:
 - Outreach material for senior managers and policy makers to emphasize the importance of pedestrian safety and how the Focused Approach to Pedestrian Safety Program can help to improve pedestrian safety.
 - Educational resources such as studies of “best practices” or examples of successful pedestrian safety improvements under specific conditions (e.g., size of the metropolitan area, nature of the transportation network, volume of pedestrians).
 - Tools to help agencies analyze pedestrian safety and identify appropriate solutions.
- Promote the technical assistance component of the Program.
- Develop tools and strategies to continually monitor and evaluate Program effectiveness.
- Conduct further research to provide a thorough understanding of the effectiveness of various pedestrian countermeasures and the keys to successful Program outcomes.
- Consider modifying the strategy for determining which localities should receive Focused Approach to Pedestrian resources to reflect a combination of need and interest.

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List of Abbreviations

ADA	Americans with Disabilities Act
Caltrans	California Department of Transportation
CMAP	Chicago Metropolitan Agency for Planning
FHWA	Federal Highway Administration
GDOT	Georgia Department of Transportation
GTSAC	Governor's Traffic Safety Advisory Commission
HSA	FHWA Office of Safety
IDOT	Illinois Department of Transportation
MDOT	Michigan Department of Transportation
MPO	Metropolitan Planning Organization
NYMTC	New York Metropolitan Transportation Council
PBIC	Pedestrian and Bicycle Information Center
PSAP	Pedestrian Safety Action Plan

I. Background

This report presents the results of an evaluation of the pedestrian component of the Federal Highway Administration (FHWA) Office of Safety (HSA) Focused Approach to Safety Program. Launched in 2004, the Program's novel approach concentrates funding and technical assistance in specific locations with the highest fatalities and fatality rates in three emphasis areas—intersections, roadway departures, and pedestrian safety.

This study is the third in a series of evaluations that the Volpe National Transportation Systems Center (Volpe Center) has conducted for the Office of Safety. The first study, [A Long-Term Plan for Evaluating the FHWA's Office of Safety Programs](#), completed in 2005, recommended a two-phased approach to implementing program evaluations and measuring effectiveness. Phase 1 of the evaluation was to make short-term improvements to existing programs to improve their design, process, and implementation and to define measurable outcomes and a data collection plan for a longer-term assessment of program effectiveness. The second phase is to implement the longer term assessment.

The second Volpe Center study, completed in July 2007, was the first step in implementing the Phase 1 recommendation from the study referenced above. The authors examined the Focused Approach to Safety Pilot Program and provided recommendations for improving the pilot program's design and implementation as well as its ability to be evaluated.

The study described in this report examines the design, process, and implementation of the Focused Approach to Pedestrian Safety Program. The Program provides training and technical assistance to the 14 states with more than 150 pedestrian fatalities and a pedestrian fatality rate above 2.5 deaths per 100,000 and the four cities with the most pedestrian fatalities, based on 2005 data. The Program has three learning activities: pedestrian safety courses, technical assistance, and regular conference calls and web conferences.

The three courses offered by the Program are:

- ***Developing a Pedestrian Safety Action Plan***

This two-day course shows state and local officials how to develop a pedestrian safety action plan (PSAP) tailored to their communities. It also assists agencies in enhancing their existing pedestrian safety programs and countermeasures, including identifying safety problems, analyzing data, and selecting the best solutions.

- ***Designing for Pedestrian Safety***

This two-day course shows state and local officials how to improve pedestrian safety using design and engineering solutions.

- *Planning and Designing for Pedestrian Safety*

This three-day course combines the curricula of the two other courses to help state and local officials learn how to address pedestrian safety issues through planning, design, and engineering solutions.

The target audience for these courses is engineers, planners, traffic safety and enforcement professionals, public health and injury-prevention professionals, and decision-makers who are seeking ideas and solutions for changes to the physical environment that improve pedestrian safety.

The second Program component is technical assistance, which is offered to focus locations to help them in planning and analysis. The technical assistance is provided by the Pedestrian and Bicycle Information Center (PBIC), as a subcontractor to VHB, a consulting firm under contract with FHWA.

The third component is regular conference calls and web conferences. These provide a forum for FHWA staff, Program consultants and instructors, and representatives from the focus cities and states to exchange ideas and discuss the progress of their pedestrian safety initiatives.

II. Evaluation Approach

This evaluation set out to:

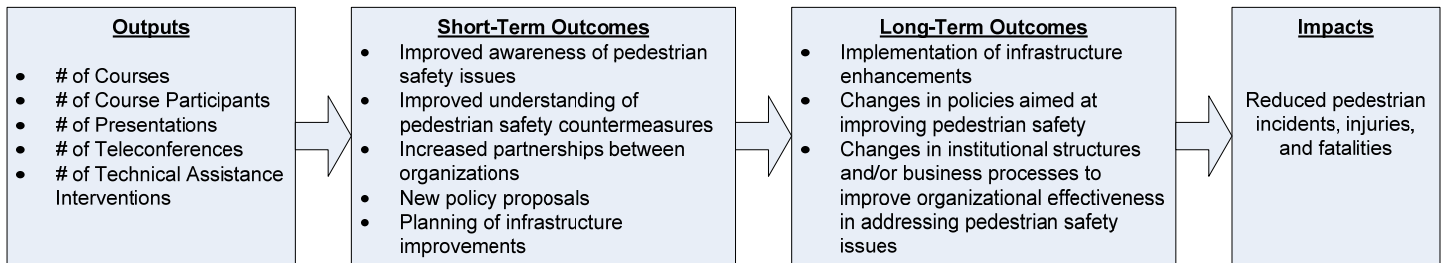
- Determine whether the Focused Approach to Pedestrian Safety Program produced the expected short- and long-term outcomes;
- Investigate trends and patterns in Program outcomes to better understand critical success factors;
- Provide specific, actionable recommendations for improving the design and implementation of the Focused Approach to Pedestrian Safety Program; and
- Establish the foundation for a broader assessment of the longer term outcomes and impacts of the pedestrian component of the Focused Approach to Pedestrian Safety Program.

Figure 1 illustrates the theory underlying the Focused Approach to Pedestrian Safety Program. In the short term, participation in the program activities is expected to:

- Improve awareness and understanding of pedestrian issues;
- Increase knowledge, skills, and abilities to address these issues;
- Help with the identification and planning of policy, business process, institutional, and infrastructure changes that will improve pedestrian safety.

These short-term outcomes are expected to lead to long-term outcomes such as the implementation of new countermeasures, policies, business processes, and organizational changes that will improve pedestrian safety. If successful, these outcomes will ultimately lead to a safer pedestrian environment.

Figure 1. Focused Approach to Pedestrian Safety Program Theory



In implementing the evaluation model shown in Figure 1, participants' learning experiences can be categorized into Kirkpatrick's four levels of learning:¹

1. **Reaction of students:** Did the participants enjoy the training? Did they find it relevant to their jobs?
2. **Learning:** Did the training increase participants' knowledge?
3. **Behavior:** Did the training change participants' behavior? Did they apply what they learned?
4. **Results:** Did the participants' behavior have an impact upon the environment?

PBIC prepared a report on the Focused Approach to Safety Program² summarizing its progress from September 2004 to December 2007. It collected comprehensive information on Kirkpatrick's first level of evaluation, the reaction of students to the pedestrian safety courses. The evaluators also gathered self-assessments from participants to gauge their knowledge of pedestrian safety before and after the courses (level two evaluations). Finally, PBIC collected data from the focus locations on countermeasures and initiatives implemented as a result of the training (levels three and four).

Building on the results of the PBIC evaluation, the current evaluation examined five focus locations—New York City, Chicago, and the states of California, Georgia, and Michigan. The primary emphasis was on Kirkpatrick's evaluation levels three and four:

- Did participants change their behavior because of Focused Approach to Pedestrian Safety activities?

¹ Kirkpatrick, Donald and James Kirkpatrick. 2006. "Evaluating Training Programs: The Four Levels" Berret-Koehler Publishers, Inc. (San Francisco, CA)

² University of North Carolina Highway Safety Research Center, "Developing and Implementing a Pedestrian Safety Action Plan," February 2008.

- Was this change in behavior sustained over time?
- Did the changes in behavior lead to any of the short- or long-term outcomes shown in Figure 1?

The five focus locations for this study were chosen based on:

- **Geographic diversity** - States with both rural and urban populations and from various geographic regions.
- **Number and type of Program activities** - Locations with a relatively high number of Program activities.
- **Information available for data collection** - States where course administrators consistently collected and compiled participant information.
- **Time after Program activities were delivered** - Locations where some Program activities were conducted in FY06 to assess the Program's longer term influence (22-33 months).
- **Focus city** - States containing a focus city.

Table 1. Evaluation Locations

Location	Year	Courses	Technical Assistance	Notes
California	FY06	5		<ul style="list-style-type: none"> • Many Program activities • Large state with diverse areas to study • Los Angeles focus city
	FY07	10		
Georgia	FY06	1	1	<ul style="list-style-type: none"> • Urban and suburban areas • Technical assistance
	FY07	2		
Chicago	FY06	2	1	<ul style="list-style-type: none"> • Focus city • Technical assistance
	FY07	2		
Michigan	FY06	4		<ul style="list-style-type: none"> • Focus city; Detroit focus city • State Pedestrian Safety Action Plan
	FY07	2		
New York City	FY06	8		<ul style="list-style-type: none"> • Many Program activities • Large state with diverse areas to study • Focus city: New York City
	FY07	4		

Data for this study were collected using semi-structured telephone interviews with key pedestrian safety actors from a variety of organizations in each of the five focus locations. In each location, interviews were conducted with the FHWA Division Office staff in charge of pedestrian safety and with the Focused Approach to Pedestrian Safety coordinator, usually a person from the state department of transportation or the metropolitan planning organization (MPO). Other interviewees were chosen based on recommendations made by these two key contacts, including:

- Active in pedestrian issues at the state and local levels.
- Responsible for pedestrian safety in a locality that has made notable progress addressing pedestrian safety issues since the Focused Approach to Pedestrian Safety Program activities were delivered.
- Involved in the development of the Pedestrian Safety Action Plan (PSAP).
- Involved in pedestrian safety follow-up initiatives that were influenced by Focused Approach to Pedestrian Safety activities.

Twenty-nine interviews were conducted across the five locations. Table 2 summarizes the mix of interviewees for each location.

Table 2. Interviewees

Location/ Representative	California	Georgia	Chicago	Michigan	New York
FHWA	1	1	1	2	2
State DOT	2	1	—	2	—
MPO	—	1	1	1	1
City	1	1	1	1	2
County	1	—	—	—	—
Consulting firm	—	1	—	—	—
Public Health Organization	1	—	—	1	—
Advocacy Group	1	1	1	—	—
Total	7	6	4	7	5

Interviewees were asked:

- How the Program was implemented in their location;
- What changes, if any, have occurred in pedestrian safety policies, practices, behaviors, or organization that can be attributed (at least in part) to participation in the Focused Approach to Pedestrian Safety Program;
- What factors contributed to or detracted from the Program’s success;

- What lessons they learned from participation in the Program that could help other focus locations in implementing pedestrian safety improvements; and
- What recommendations they had for improving the Program.³

III. Findings

This section describes the major findings from the interviews. The findings are divided into three categories: Program outcomes, Program delivery, and Program evaluation.

Program Outcomes

Based on the five locations in the study sample, the Focused Approach to Pedestrian Safety Program has achieved many of its short- and long-term goals. Following are some highlights of the results reported by interviewees.

The Program raised the visibility of pedestrian safety in focus locations.

The “focus location” designation raised the awareness and visibility of pedestrian safety in the locations studied. It helped stimulate dialogue on pedestrian safety that probably would not have otherwise occurred. The most striking example of this was in Chicago. Staff from the Chicago Metropolitan Agency for Planning (CMAP) were surprised to learn that the city of Chicago had the third-highest number of pedestrian fatalities in the country. Until then, their regular safety data analyses did not include pedestrian safety.

Before considering actions to improve pedestrian safety, CMAP wanted to understand the nature of the problems such as high-injury locations and typical crash causes. Without this information, choosing the best pedestrian safety measures would be difficult—educated guesses at best. CMAP took advantage of the technical assistance offered by the Focused Approach to Pedestrian Safety Program for help conducting the extensive data analysis necessary to allow for sound judgments about pedestrian safety improvements. The results of the data analysis were used to decide how to best approach pedestrian safety problems. For example, the mayor of Chicago commissioned the Mayor’s Pedestrian Advisory Council to provide guidance on pedestrian issues in the city.

The Program also gave pedestrian safety issues legitimacy as an important component of overall transportation safety. For example, many interviewees commented that engineers, in particular, who participated in the training left with a new awareness and sense of responsibility for pedestrian safety. In New York, interviewees said that, because of the Program activities, traffic planners have elevated the importance of pedestrian safety so that it is no longer secondary to traffic flow. Other interviewees noted that, because the training was sponsored by the Federal government, it gave

³ See Appendix B for the interview guide.

the topic more legitimacy than locally generated training would. This has helped build support for “mainstreaming” pedestrian safety considerations so that they are part of the normal transportation project development process rather than being considered a special task and often included as an afterthought.

The Program helped draw attention and resources and generate momentum for addressing pedestrian safety issues.

FHWA’s involvement in the Focused Approach to Pedestrian Safety Program, combined with out-of-state course instructors, gave the topic a gravitas and credibility that locally produced awareness and training initiatives had not. Interviewees reported that the focus location designation conveyed the severity of the problem to others and frequently drew additional state and local funding for pedestrian safety initiatives. For instance, interviewees in Michigan stated that they did not use any of their targeted safety funding to address pedestrian safety until after participation in the Program.

The Program also generated momentum for improving pedestrian safety. For example, California Department of Transportation (Caltrans), which has had four employees dedicated solely to pedestrian and bike safety since the late 1990s, took advantage of the Program’s activities to begin to focus and expand its pedestrian safety work. They used the focus state designation to “take all the training they could get.” Similarly, Chicago interviewees said that the focus city designation helped draw resources to pedestrian safety tasks. One interviewee noted “enforcement people didn’t realize what they could do or that they could advocate for improvements in pedestrian safety.” Including personnel from a variety of organizations in the courses also helped spread the momentum generated by the courses to non-transportation agencies. Interviewees from New York said that the high number of course offerings, and subsequently course attendees, helped create a critical mass of city employees across several disciplines—planning, operations, law enforcement, design, and construction—that has helped shift priorities toward greater concern for pedestrian issues.

The Program improved participants’ understanding of and attitudes toward pedestrian safety issues.

The Focused Approach to Pedestrian Safety courses, technical assistance, conference calls, and web conferences helped participants better understand and appreciate pedestrian safety issues. Some interviewees said that the training made them more aware of the importance of pedestrian safety. For course attendees who were already familiar with pedestrian safety issues, the courses reinvigorated their interest in pedestrian safety. As one interviewee said, “The training gave deeper knowledge and more confidence to implement changes. A lot of what is currently being implemented is due to attitude changes as a result of the training.”

The training was particularly valuable in reinforcing the importance of pedestrian safety among engineers, who tended to have less exposure to pedestrian issues than planners. For example, some interviewees said that engineers were often not aware

that many pedestrian countermeasures are relatively inexpensive. As one interviewee remarked, "Some engineers came in confident that they knew enough about pedestrian safety but came out with their eyes opened a little."

The Program increased the ability and confidence of participants to advocate for pedestrian safety improvements.

The Program helped draw resources to pedestrian issues by improving the ability of local transportation professionals to communicate effectively the importance of pedestrian safety. The courses and conference calls, for example, provided presentations and real life examples of "before and after" cases that participants found helpful when advocating for pedestrian safety improvements in their jurisdictions. One interviewee noted, "The Program really provided support for things the staff knew about, but the public is unfamiliar with."

Some interviewees commented that the Program increased participants' confidence in proposing and defending pedestrian safety initiatives. One interviewee from a rural county reported that the county was reluctant to take risks on unfamiliar pedestrian safety countermeasures because of the possibility of failure. However, when the Federal government promoted these countermeasures and provided guidelines for their implementation, the county became sufficiently confident in the practices to introduce them to local communities. Another interviewee said the courses gave staff increased confidence that allowed them to be more aggressive and confident about implementing pedestrian safety countermeasures.

The Program provided participants with practical tools and techniques for assessing and solving pedestrian safety problems.

Interviewees stated that the courses expanded their knowledge of techniques for assessing pedestrian safety problems and developing strategies and countermeasures to address these issues. One interviewee said that the courses helped engineers understand how to implement pedestrian access accommodations and crash reduction strategies. Another interviewee noted that he saw a real shift in the state's approach to pedestrian safety. After participation in the training, DOT staff began to consider a much broader array of options for addressing pedestrian safety. Another interviewee echoed that sentiment, noting that the courses gave the team working on the pedestrian/bicycle focus area of the State Strategic Highway Safety Plan an increased understanding of pedestrian issues and a broader set of solutions for addressing them.

Participants said that the most valuable parts of the courses were the visual examples and the field exercises involving analysis of pedestrian safety problems at a real-world location, especially locations already targeted for pedestrian safety improvements. For example, the field exercises for the courses offered in Atlanta studied a location that the Georgia Department of Transportation (GDOT) had already slated for various improvements, including some to address current pedestrian safety problems. The project will include some of the suggestions generated by class participants. The consultant working on the project reported that, "GDOT has always been open to new

ideas on pedestrian safety, but there was a real shift with this project. The scope of work was more specific and complete—not the typical generic version.”

After participating in the Program, GDOT engineers are looking at options that they might not have considered without the Focused Approach to Pedestrian Safety courses. In the past, the engineers were concerned about the potential effect of pedestrian improvements on traffic flow in the location. The course made them realize that “the impact [of pedestrian safety improvements] is not so significant for vehicles, and the proposed improvements for pedestrian safety were more important.”

The Program helped create and strengthen partnerships among professionals from a variety of disciplines to work on issues related to pedestrians and pedestrian safety.

The Program provided a forum for a cross-section of professionals to share ideas and concerns about pedestrian safety. In each focus location, a diverse set of professionals participated in the Program’s learning opportunities, including people from inside and outside the transportation planning and operations community. In addition to transportation engineers and planners, attendees included law enforcement personnel, public health professionals, and public officials from a variety of state and local government agencies. Some locations also included advocacy groups and consultants. This mix played an important role in initiating or strengthening conversations between transportation professionals and their counterparts in other disciplines. In addition, the attendees’ diversity encouraged an interdisciplinary approach to pedestrian safety and promoted the development of partnerships to implement solutions.

Attendees’ Accolades

“Quality of presenter was absolutely phenomenal.”

“Kudos to FHWA”

“My enthusiasm for pedestrian safety has spread to others in my office.”

“Courses definitely addressed a need.”

“Training has definitely led to changes in how [course attendees] consider pedestrian issues in their projects.”

“The Focused Approach to Pedestrian Safety has addressed “willful ignorance” by raising the visibility of pedestrian safety.”

In Chicago, attendees took advantage of the opportunity provided by the pedestrian safety courses to expand their network of colleagues and create a diverse “community of practice.” In Michigan, interviewees said that including attendees from professions not directly related to transportation increased awareness and understanding of the connection between planning, engineering, operations, and public health and safety.

The Program spurred changes in policies and business processes aimed at improving pedestrian safety.

Interviewees provided many examples of changes in pedestrian policies, procedures, and business processes that they believed came out of knowledge and skills included in Program activities. While some of these changes were in process before the Program, interviewees reported that the Program gave them more momentum.

Following are a few of examples of these changes:

- In Chicago, CMAP and the Mayor's Pedestrian Advisory Council developed recommendations for changes to the Procedures Manual produced by the Illinois Department of Transportation's (IDOT) Bureau of Design and Environment. IDOT is currently evaluating these recommendations.
- The City of Chicago pedestrian safety staff is working with the city's police department to improve the consistency and comprehensiveness of data collected at crash scenes.
- FHWA's Michigan Division Office has used information from the Focused Approach to Pedestrian Safety training and another course on road safety audits to implement the state's first road safety audit focusing on pedestrians. Traffic and safety specialists from throughout the state have volunteered their time to conduct this audit. Managers at the Michigan Department of Transportation (MDOT) are exploring ways to conduct additional audits.
- Caltrans decided to promote the development of pedestrian safety action plans by local governments throughout the state. To help local governments in this task, Caltrans is working with the FHWA Resource Center to develop templates for typical pedestrian safety action plans that local governments can use as a basis for their plan.
- The City of Detroit—a one-time focus city—now considers pedestrian safety in all transportation improvement projects, including signal modifications.
- Policy makers in some local governments in Michigan were reluctant to introduce new pedestrian safety countermeasures out of concern that they would be unsafe and open their jurisdiction up to liability lawsuits. To address this, MDOT and the state Attorney General's Office prepared a presentation on legal liability for the countermeasures that most concerned local governments. This presentation helped ease local governments' concerns. MDOT has presented this material to a number of groups, including a statewide conference on community health.
- Georgia's PSAP recommends changes to policies and practices such as updating the driver's manual to include pedestrian safety issues; developing a plan to identify educational programs for pedestrian safety; promoting pedestrian safety with messages on buses; and encouraging or funding police efforts to increase speed enforcement in areas with high pedestrian volumes. While

GDOT does not have the authority to implement all of these recommendations, it is strongly encouraging jurisdictions to adopt them.

The Program has played a role in creating new institutional structures and forums or strengthening existing structures focused on pedestrian safety.

Below are some examples of institutional structures that were created or strengthened as a result of the Program:

- The City of Chicago formed the Mayor's Pedestrian Advisory Council to improve pedestrian safety and promote policies and practices to enhance the overall pedestrian environment. The council is multi-disciplinary, including members from public health, advocacy organizations, and business organizations. The chair of the council is a pediatrician who specializes in traumatic injuries and fatalities in children.
- Caltrans, responding to increased interest in pedestrian safety generated by the Focused Approach to Pedestrian Safety Program, worked with a pedestrian advocacy group to sponsor a conference—the Pedestrian Safety and Advocacy Conference—held on September 19-20, 2008. This conference encourages and strengthened collaboration among those responsible for pedestrian safety programs and policies. There were attendees from a variety of professions involved in pedestrian safety, such as law enforcement, advocacy groups, local governments, and Caltrans staff.
- In Michigan, each focus area on the state's Strategic Highway Safety Plan had an "action team" assigned to develop strategies on reducing fatalities. The Program helped strengthen the pedestrian and bicycle action team by giving it important tools and techniques for addressing pedestrian safety. It also helped team members feel more confident about their contributions and improved cooperation among the different professions represented on the action team.

The Program has resulted in a greater consideration of pedestrian safety in the planning process.

Several of the focus locations have instituted new or improved procedures for collecting and analyzing pedestrian crash data. In addition, some locations have developed or are developing Pedestrian Safety Action Plans informed by content from the training and technical assistance provided by the Focused Approach to Pedestrian Safety Program. Other areas have incorporated more pedestrian-safety-related projects in their Strategic Highway Safety Plans, Unified Planning Work Programs, and regional transportation plans. For example:

- CMAP in Chicago used the course content on pedestrian safety countermeasures to develop pedestrian safety-related projects and recommendations that have been incorporated in its 2030 Regional Transportation Plan. A Los Angeles suburb is incorporating elements of the pedestrian safety training into the land use and circulation element of its long-range land use and zoning plans.

- Course participants from the Capital District Transportation Committee, the MPO for the Albany-Schenectady-Troy metropolitan area, reported that they used lessons from the courses to introduce safer, pedestrian-friendly design concepts into local planning studies.
- In Georgia, the Atlanta Regional Commission included recommendations coming out of the training in its 2007 Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan. In addition, the Atlanta Regional Commission plans to update the Transportation Improvement Program blueprint to include pedestrian and bicycle considerations, using a formula for project prioritization from their Bicycle and Pedestrian Plan.

Many pedestrian improvements have been implemented or are under consideration in the focus locations since participation in the Program.

Interviewees in every focus location gave examples of pedestrian improvements that have been implemented as a result of the Focused Approach to Pedestrian Safety Program. Improvements ranged from modest, small scale, inexpensive countermeasures up to major infrastructure changes. Small-scale changes include zebra striping on crosswalks, high-visibility signage, and in-pavement crosswalk lighting. Interviewees also mentioned countermeasures that require a bit more resources to implement but do not fundamentally change traffic patterns in the area. These include countermeasures such as pedestrian countdown signals; new mid-block crosswalks; and, at intersections of a high-volume arterial and very low-volume collector, traffic signals for which the arterial signal is “dark” unless a pedestrian presses a button to trigger the traffic signal to change to red on the arterial and allow the pedestrian to cross. Other countermeasures have fundamentally changed traffic patterns in an effort to improve pedestrian safety. These include installing pedestrian refuge islands, speed humps, and narrowing the roadway to encourage drivers to reduce their speed.

As one interviewee commented, some of these advances in pedestrian safety might have happened without the Program presence, but they definitely would have taken longer. “The Program channeled everyone’s interest and helped them to clearly focus on what could be done.”

Program Delivery

There was no single model used by all the locations for delivering courses.

Each focus location implemented courses slightly differently, depending on its individual needs and circumstances:

- Inviting course attendees
 - New York chose to limit attendees to public sector employees. This was to strengthen pedestrian safety knowledge in the organizations

that plan, construct, and operate transportation facilities. The majority of the courses were held at the Lower Manhattan office of the New York Metropolitan Transportation Council (NYMTC), the city's MPO. Invitations were initially sent to transportation agencies in the New York metropolitan area, including Westchester, Nassau, and Suffolk Counties. Because of the overwhelming demand for courses, the course coordinator extended invitations to participants from upstate New York and in Orange and Albany Counties. In addition, New York offered a web-based version of the course to expand the opportunity to participate.

- Chicago chose to invite people from different occupations, levels of government, and type of affiliation (such as public sector transportation agency, consulting firm, or advocacy group). Invitations were sent out using a large email list maintained by CMAP. Course attendees were chosen on a first-come, first-served basis.
- California notified managers from county and city departments of transportation or public works and let them choose the most appropriate attendees from their organization. Staff from advocacy organizations were also invited.
- GDOT, which offered the "Developing a Pedestrian Safety Action Plan" course first, invited people from a variety of professions using a contact list of professionals involved in pedestrian safety. Attendees were chosen on a first-come, first-served basis. For the Designing for Pedestrian Safety course, the Atlanta Regional Council (ARC) worked with GDOT to target individuals who they thought would have the biggest impact on pedestrian safety: GDOT design engineers, local government representatives, consultants, and school district officials
- Prior to being designated a focus state, Michigan's Governor's Traffic Safety Advisory Commission (GTSAC) had already begun the process of developing a Pedestrian and Bicycle Safety Action Plan as part of the state's Strategic Highway Safety Plan. The GTSAC created a network of professionals that MDOT was able to take advantage of when promoting the courses. GTSAC membership included a diverse set of professionals from local governments, health organizations, MPOs, consulting firms, and the Michigan State Police.
- The order and selection of courses
 - Georgia chose to offer the PSAP course first. The state was in the process of developing a strategic highway safety plan that included a pedestrian focus area. GDOT felt that the PSAP course would be helpful in developing the pedestrian component of the strategic highway safety plan.

- Michigan chose to offer the design course first. After assessing the status of pedestrian safety initiatives in the state, MDOT felt that practical pedestrian safety countermeasures would be more useful given that many locations were in the process of planning or implementing pedestrian safety improvements.
- Chicago chose to delay offering any of the courses for a year while it completed their pedestrian safety data analysis. They wanted to be sure that they knew the nature of the region's pedestrian safety problems before delving into solutions.
- California focused on the PSAP course since Caltrans had begun a major initiative to help county and city governments to develop PSAPS.
- New York focused on the design course in response to local needs.
- Whether they took advantage of the technical assistance component of the Program.

Only Georgia and Chicago requested technical assistance from the Focused Approach to Pedestrian Safety Program. Georgia received assistance in developing a state PSAP; Chicago received assistance for its data analysis. California received technical assistance but not through the Program. Caltrans has been working closely with staff from the FHWA Resource Center to develop a template for PSAPs that county and city governments can use when developing their own PSAPs. They are also working collaboratively to develop a short on-line version of the courses. Neither Michigan nor New York requested technical assistance.

The courses were the predominant and most successful Program component.

Interviewees were overwhelmingly positive about the courses. Some of the many reasons interviewees found the courses valuable and relevant to their jobs were that they:

- Raised awareness of pedestrian safety problems in their area;
- Generated enthusiasm for improving pedestrian safety;
- Expanded their knowledge of countermeasures;
- Provided a forum for a cross-section of professionals to share ideas and concerns; and
- Provided practical instruction on pedestrian safety design and planning techniques.

The demand for training far exceeded the supply.

Interviewees' most frequent comment was that the demand for the courses was far greater than the number of participants they could accommodate. As one interviewee stated, "My only recommendation for improvement is to offer more courses."

Some locations, most notably California, found creative solutions for meeting the unmet demand for training.

Some of the focus locations instituted follow-up training initiatives to expand the Program's reach:

- To meet the demand for more pedestrian safety courses, Chicago, New York City, and California arranged to have staff from the FHWA Resource Center deliver the courses after the courses offered by the Focused Approach to Pedestrian Safety courses were complete.
- In California, local governments have used the course materials to conduct their own training. This has allowed them to deliver low-cost, high-quality training aimed at meeting local needs.
- To expand the reach of the courses, Caltrans is working with the FHWA Resource Center to develop a streamlined on-line version of the courses so that trainees can take the course on demand without leaving their offices.
- To lessen the training burden on local governments, California Walks, a statewide pedestrian advocacy group, has used the material from the two-day "Developing a Pedestrian Safety Action Plan" course to develop an abbreviated one-day course offered to local governments.
- In Michigan, the FHWA Division Office makes presentations on the proper design for ADA ramp installations and incorporates material from the Focused Approach to Pedestrian Safety course, addressing ADA design and safety at the same time.

Management support helped raise the priority of pedestrian safety.

Several interviewees said that upper management support was important because it demonstrated the importance of pedestrian safety. In MDOT districts, the courses were introduced by senior management. This promoted buy-in from attendees by showing that MDOT takes pedestrian safety very seriously. In other locations, interviewees said that the lack of obvious support from senior managers made them feel that pedestrian safety was not near the top of their agencies' priorities.

Participants said that the conference calls and web conferences were valuable because they offered the opportunity to learn from peers addressing similar problems.

Interviewees who participated in the conference calls and web conferences were very pleased with them. They appreciated the opportunity to share ideas with colleagues from around the country. They also liked that these events focus on state and local issues. They reported that the calls provided them with useful information on best practices and gave them access to presentations created by conference call attendees that they could use in their own areas. However, every interviewee who had participated in conference calls and web conferences said that these events tended to be overshadowed by more pressing needs. Very few interviewees reported participating in more than a few calls. Several interviewees said that they have not participated consistently because they did not receive information about the date of the telephone and web conferences and the topics to be covered.

Although only two of the five locations studied—Chicago and Georgia—took advantage of FHWA’s offer of technical assistance, they both found it very valuable.

Chicago and Georgia both reported that they benefited significantly from the technical assistance they received. Before moving forward with any pedestrian safety initiatives, including the pedestrian safety courses, Chicago wanted to conduct a thorough analysis of pedestrian safety data to understand the nature of the pedestrian safety problems. This data analysis was complicated because, while Chicago had been collecting safety data from several different sources, it had not compiled or analyzed pedestrian data. Chicago took advantage of FHWA technical assistance for help with this task. The data analysis was an important catalyst for prioritizing pedestrian safety initiatives undertaken in the Chicago area.

The state of Georgia requested technical assistance to help develop its statewide PSAP. Interviewees were very pleased with the technical expertise of the consultants hired by FHWA and felt that they helped Georgia create a comprehensive and practical Pedestrian Safety Action Plan. Some interviewees felt that the state PSAP probably would not have been completed without this technical assistance.

IV. Recommendations

Based on the five locations studied, the Focused Approach to Pedestrian Safety Program appears to be very effective. Interviewees did, however, offer many suggestions for strengthening the Program. This section summarizes themes from the interviews and observations of the Volpe Center study team.

There are three categories of recommendations: Program content and delivery; outreach and education; and Program evaluation.

Program Content and Delivery

Expand the training capacity to offer more learning opportunities that can be delivered at regular intervals.

In each of the locations studied, interest in the courses exceeded available slots. Additionally, many interviewees said that they would like courses offered on a regular basis. This could be done by:

- Working with staff from the FHWA Resource Center to continue to deliver the courses after all the courses sponsored by the Focused Approach to Pedestrian Safety Program have been delivered. California, New York, and Chicago used this approach to continue to meet course demand.
- Developing local capacity to deliver training. Program activities could be sustained over the long term by developing local capacity for teaching the material. By sponsoring “train the trainer” initiatives, FHWA could prepare locally based instructors to teach elements of the course. An additional advantage is that locally based instructors can customize course material to meet the specific needs of their location.

Expand course content to include information on meeting ADA requirements.

Many interviewees noted the overlap between countermeasures for pedestrian safety problems and measures necessary for compliance with the American with Disabilities Act (ADA). Given this natural connection, offering ADA and pedestrian safety training in a single course would eliminate redundancy between the two curricula. It would also ensure that material presented in ADA training is consistent with that of pedestrian safety training. Finally, teaching both topics in the same course would decrease the training-related burden on agencies and their staff since participants would not have to attend two separate courses.

Tailor course content to the specific needs of each location.

While participants were very pleased with the course content, there was some sentiment that the courses could be improved by tailoring the content to the specific circumstances of each location. For example, a public works director from a rural county in Northern California suggested that courses delivered in rural areas could include content on pedestrian safety on rural roads, replacing the content on pedestrian safety on multi-lane, high-speed roads in urban areas.

Interviewees consistently reported that one of the most relevant parts of the courses was the field audit, which used a “real life project with real problems to be solved.”

Include content on how to incorporate pedestrian safety considerations into the standard project development process.

One of the most common problems that interviewees cited is that pedestrian safety considerations are not a standard part of the project development process. They are often treated as an ancillary task to be addressed outside the normal project development process. This has two negative consequences. First, consideration of pedestrian safety measures often occurs well into the project development process. At this stage, modifying the project to incorporate pedestrian safety countermeasures might not be possible because the project is very close to completion. Second, occasionally pedestrian safety issues are not considered at all because the pedestrian safety review is left out of the project development process entirely due to oversight on the part of the project developers. To avoid these two problems, pedestrian safety must be considered along with all other project requirements such as pavement design and drainage.

Coordinate course content with other FHWA training initiatives.

Interviewees stated that they would like to see the courses integrated with other FHWA training. Some interviewees commented that they have participated in other FHWA learning opportunities that contained information that conflicts with some of the content in the Focused Approach to Pedestrian Safety courses. The Program should work with other FHWA offices to ensure that pedestrian safety content is consistent; to avoid redundancy; and to take advantage of economies of scale.

Explore mechanisms other than classroom training.

While classroom training has many advantages, it can be costly to deliver and inconvenient for attendees. In addition, many interviewees cited difficulty in getting busy people to take time off from their jobs for training, particularly for the longer courses. To reach a wider audience, including those outside the focus locations, FHWA should explore other mechanisms for learning, including:

- **Developing web-based learning opportunities.** This could be a stand-alone web-based course that participants can take at any time, as with the web-based training that Caltrans and the FHWA Resource Center are currently developing. Web-based training could also be delivered as a webinar— instructor-led courses that use interactive Internet capabilities and a teleconference call to allow students to communicate with instructors in real time.
- **Promoting peer learning.** Interviewees consistently said that courses, conference calls, and web conferences were a good opportunity to talk with colleagues facing similar problems and to learn from each others' experiences. Interviewees also stated that peer reviews of PSAP would be helpful.

- **Creating and distributing educational materials.** Some elements of the Focused Approach to Pedestrian Safety course curricula could be provided through educational materials such as “best practices” reports or a handbook describing typical pedestrian safety problems and appropriate countermeasures.

Improve outreach to notify stakeholders of dates and topics of upcoming conference calls and web conferences.

Some interviewees said that they have participated in some conference calls and web conference and found them valuable. However, a few reported that they have not participated consistently, in part because they were not notified of the schedule and topics for these events.

None of the locations studied had a consistent and reliable way of announcing the dates and topics of teleconference calls and web conferences. Word is generally spread informally, relying on stakeholders to be in the right place at the right time to learn about upcoming events. The Program could provide information and outreach material on the conference calls and web conferences to FHWA Division Offices for distribution to people in the state who might benefit from participation.

Promote the technical assistance component of the Program.

The locations that received technical assistance found it extremely valuable. However, technical assistance was a very under-utilized component of the Focused Approach to Pedestrian Safety Program. Of the 14 states and four cities designated as focus locations, only two states and one city took advantage of the technical assistance component. A few interviewees were not aware that this service was available. The Office of Safety should work with FHWA division offices to convey to focus locations the type and extent of technical assistance available.

Require focus locations to develop an “action plan” with goals and performance measures as a prerequisite for participation in the Program.

To ensure that the focus locations are committed to the Program and that they have a workable plan for its implementation, FHWA could require each location to submit an action plan stating their goals, strategies, implementation details, and performance measures. For example, this plan could include a qualitative and quantitative description of the region’s pedestrian safety problems and how the Focused Approach to Pedestrian Safety Program will help address them. The action plan could also include the region’s approach to follow up with participants to determine changes that have been made that were influenced by the Program. This would provide data to the Focused Approach to Pedestrian Safety Program to use in evaluating the entire Program.

Consider modifying the methodology for determining “focus locations” to reflect a combination of need and interest.

As currently designed, all locations that met a given threshold for pedestrian fatalities received Program resources, regardless of the location’s transportation priorities. Targeting locations could be improved by offering Program resources to all locations that meet a given threshold for pedestrian safety rates. However, each location would have to request pedestrian safety training opportunities as evidence that the location is committed and ready to make the changes necessary to improve pedestrian safety.

Outreach and Education

Develop outreach material specifically aimed at senior managers and policy-makers to encourage them to promote pedestrian safety improvements.

Several interviewees said that support from leaders and policy-makers gave the topic of pedestrian safety generally, and the Focused Approach to Pedestrian Safety Program specifically, a gravitas that generated interest and enthusiasm. Conversely, a few interviewees said that the apparent lack of interest in pedestrian safety displayed by senior managers and policy makers caused them to question the importance of pedestrian safety to their organization. The Program could create outreach material and/or develop a webinar specifically intended to impress upon leaders and policy-makers the importance of improving pedestrian safety. Information could include statistics about pedestrian safety, a description of the many modest improvements that can make pedestrian travel safer, and examples of pedestrian safety measures and programs that have been implemented across the nation.

Interviewees also recommended that FHWA emphasize to state and local DOTs the importance of having staff at all levels of the organization attend the training and of the particular value of having upper management introduce the training to demonstrate the agency’s commitment to pedestrian safety.

Develop and promulgate case studies of “best practices” in pedestrian safety.

In each location studied, Program activities influenced changes and new initiatives that improve pedestrian safety. Several interviewees suggested that it would be helpful to have information on possible pedestrian safety countermeasures that would be suitable for their location. This might include a booklet presenting options, their advantages and disadvantages, and descriptions of initiatives undertaken in locations across the country. A list of resources for learning more about these options could also be provided.

Develop and disseminate tools to help agencies analyze pedestrian safety and identify appropriate solutions.

Some of the focus locations in the study developed useful tools that could be helpful to other locations. For example, California developed PSAP templates to assist local governments in developing their own PSAPs. Additionally, Caltrans and the FHWA Resource Center staff are creating an on-line course in developing a PSAP. As part of the best practices research, FHWA should collect information on existing tools and help make them widely available to communities seeking to improve pedestrian safety.

Program Evaluation

Require focus locations to document the results of the Program activities delivered and the lessons learned.

As a prerequisite for participating in the Program, FHWA should require focus locations to document their experiences and results. In addition, focus locations should be required to write periodic follow-up reports describing pedestrian safety countermeasures and initiatives undertaken as a result of their Program activities. This requirement should also include a description of lessons learned in implementing these countermeasures and initiatives. FHWA could provide a template to this data collection and ensure data consistency.

The FHWA could use these reports to continuously monitor and improve the Program. FHWA could also use “success stories” based on these reports to market and promote the Program. In addition, this requirement would promote transparency and accountability among Program participants and course instructors.

Track Program results over time to determine whether there is a reduction in pedestrian incidents, injuries, and fatalities.

Given the many factors that contribute to pedestrian injuries and fatalities, it is difficult to isolate the specific impacts of Program activities. However, FHWA should monitor trends in the focus locations to determine whether there are, in fact, improvements in pedestrian safety and, if not, explore the factors that might contribute to the lack of progress.

Conduct further research to determine critical factors in Program success.

One of the purposes of this evaluation was to investigate trends and patterns in Program outcomes in order to gain a better understanding of critical success factors. While this study has created a foundation for future research, its scale was too small to make any conclusive statements on factors influencing Program success. Future studies could examine:

- **Leadership:** What are the key functions of the Program leader? Are there differences between those Programs led by state DOTs and those led by MPOs?
- **Management support:** How important is upper management support in achieving Program success? What strategies have proven successful in attracting the support of upper management?
- **Readiness for change:** Are there certain prerequisites for Program success? For example, are there institutional mechanisms that need to be in place to implement pedestrian improvements?
- **Program delivery:** What elements of Program delivery were the most important in ensuring success?
 - **Order of course delivery:** Is the order of course delivery important? If locations do not have a PSAP, is it important that they start with this course so they understand the issues before developing the solutions?
 - **Number and mix of course attendees:** What is the best mix of course attendees? Is there a critical mass of people from each agency that needs to be trained in order for the training to have an impact on agencies' approach to pedestrian safety? What level(s) of management should be involved in Program activities? What are the advantages and disadvantages of broadening participation to include non-transportation agencies?
 - **Course content:** Does the course content meet the needs of each of the focus locations? How could course content be modified to meet the disparate needs of focus locations?
 - **Obstacles to success:** What were the most important obstacles to success? What strategies have been most successful in addressing these barriers?

Conduct additional research on pedestrian safety.

Further research is needed to determine the effectiveness of various pedestrian safety countermeasures; e.g., which countermeasures work best in rural versus urban locations; which countermeasures are most effective in addressing specific pedestrian issues such as eliminating jaywalking or reducing traffic speed in locations with high pedestrian volumes. Interviewees also requested research on cost-effective methods for collecting data on the length and quantity of non-motorized trips and the incorporation of these data into existing travel demand models.

V. Conclusion

One interviewee commented, "I hope the conclusion of the evaluation is 'money well spent.'" The Focused Approach to Pedestrian Safety Program was received very favorably in the locations studied. The Program raised the visibility of pedestrian safety, and helped focus attention and resources on pedestrian safety initiatives. The increased awareness and understanding of pedestrian issues spurred changes in policies and business processes aimed at improving pedestrian safety. It also helped create and strengthen partnerships and institutional structures focused on pedestrian safety. In every location studied, the investments in the Program have already resulted in the planning and implementation of pedestrian countermeasures.

Further research is needed to determine the critical factors that influence the adoption of pedestrian improvements. There is also a need to continue to monitor Program results to determine whether the improvements are sustained over time and whether they result in a reduction in pedestrian incidents, injuries, and fatalities.

In the short term, FHWA should take advantage of the successes of the Program by developing and disseminating additional educational and outreach materials on best practices for addressing pedestrian safety. In this way, FHWA can extend the impact of the Program beyond the focus locations and increase even further the awareness, visibility, and understanding of pedestrian safety issues.

Appendix A. Case Studies

New York

PROGRAM IMPLEMENTATION

In 2007, there were 278 pedestrian fatalities in New York state—the fourth highest in the nation. New York City, with more pedestrian fatalities than any other city, was selected as a focus city. New York’s FHWA Division office worked with the New York Metropolitan Transportation Council (NYMTC) to coordinate Program activities. Under the coordination of NYMTC, 12 courses have been delivered in locations throughout the NYMTC region and beyond including New York, Nassau, Suffolk, Westchester, and Orange counties. Attendees included transportation engineers, law enforcement personnel, transportation planners, and public officials from a variety of state and local government agencies. More than 280 people have received training through this Program. NYMTC continues to promote the courses to local municipalities within and beyond the New York City region.

Table A1. Pedestrian Safety Activities in New York

Activity	Fiscal Year		Total
	2006	2007	
Developing a Pedestrian Safety Action Plan (1-day)	1	0	1
Designing for Pedestrian Safety (2-day)	6	4	10
Designing for Pedestrian Safety (1-day)	1	0	1
Course Webcast	0	1	1
Total	8	5	13

REACTION

Testimony from course participants has been overwhelmingly positive. All evidence has pointed toward ongoing and excess demand for the Program course throughout the downstate New York region. Many course participants cited interest in attending additional courses on pedestrian safety topics or in providing additional opportunities for colleagues to attend the courses. Course participants felt that the courses:

- Were timely - occurring immediately before a new NYC DOT Commissioner increased the agency’s focus on pedestrian issues;
- Were practical and useful;
- Introduced new techniques for assessing pedestrian safety problems and strategies to address them;

- Were well-presented by interesting and qualified trainers; and
- Used visual materials and field examples well.

OUTCOMES

Program activities improved participants' understanding of pedestrian safety issues

The Focused Approach to Pedestrian Safety courses increased awareness of the importance of pedestrian safety among transportation professionals and agencies throughout the downstate region. This was especially true for engineers who attended the “Designing for Pedestrian Safety” course. For course participants who were already familiar with pedestrian safety issues and countermeasures, the courses reinvigorated their interest in implementing safety measures.

Program activities raised awareness of pedestrian safety issues.

The large number of courses in the downstate region likely increased their impact. Respondents suggested that repeated courses in New York City may have helped to create a critical mass of city employees across several disciplines—planning, operations, law enforcement, design, and construction—that were interested in pedestrian safety. This contributed to a shift in priorities towards greater concern for pedestrian issues. In addition, the courses may have had a positive multiplier effect, as they energized a number of course participants to raise awareness of pedestrian safety issues and countermeasures in their communities.

Program activities spurred various pedestrian safety projects and initiatives.

The courses provided transportation professionals from diverse disciplines with strategies to incorporate pedestrian safety in their work. Numerous participants have shared stories of their efforts to follow up on the course teachings with course trainers and coordinators and sought additional advice and training opportunities. Several design engineers from New York City and other towns have worked to incorporate pedestrian design considerations into numerous construction projects. Participants cited several specific examples of countermeasures and initiatives influenced by the courses, such as:

- Conducting pilot studies of countdown timers, developing a Pedestrian Safety Action Plan, and establishing a “Safe Streets for Seniors” Program in New York City;
- Expanding sidewalks and redesigning crossings in Manhattan;
- Developing a law enforcement pedestrian safety plan in New Castle;
- Implementing a comprehensive traffic calming project in Farmingdale;

- Modifying signal timing and identifying potential bike lane routes in White Plains;
- Installing and designing sidewalks in Rockland County;
- Adding mid-block crossings in Riverhead;
- Using reflective pedestrian safety signage at crossings in Great Neck Plaza; and,
- Developing pedestrian safety plans in several municipalities.

The examples listed above demonstrate the variety of approaches and applications of pedestrian safety initiatives undertaken by course participants. In the case of New Castle, for example, law enforcement personnel worked to create a law enforcement pedestrian safety plan. In Manhattan, traffic planners from the New York City Department of Transportation’s Division of Traffic Planning and engineers from the New York City Department of Design and Construction cited numerous examples of their agencies’ new approach to pedestrian safety. In the case of the former, engineers who participated in the training left with a new awareness and sense of responsibility for pedestrian safety. In the case of the latter, traffic planners have elevated the importance of pedestrian safety issues so that they no longer “take a back seat” to vehicular flow. Both Departments are now aggressively addressing pedestrian issues by widening sidewalks, creating pedestrian refuge islands, and shutting down traffic lanes.

SUGGESTIONS FOR PROGRAM IMPROVEMENT

Offer more courses and offer courses in locations beyond the downstate region.

Demand for the courses has far exceeded the available training capacity. Offering more courses and offering them more frequently would be important steps in promoting pedestrian safety within each agency that has expressed interest in the courses. Many participants expressed interest in hosting courses in their own localities or having colleagues attend the courses.

Allocate Program resources based on the severity of the pedestrian safety problem in each focus location.

Some interviewees felt that FHWA funding for courses should be commensurate with need and suggested that FHWA should provide greater support to areas with more pedestrians, such as New York. As seen in several New York City agencies, the multiple course offerings in Manhattan enabled certain agencies to achieve a critical mass of trained personnel that helped to change the approach to pedestrian issues across the agency.

Continue to use course instructors with both engineering and non-engineering backgrounds.

Several interviewees suggested that the success of the course was largely the result of the two excellent trainers from the FHWA Resource Center. The use of trainers from different backgrounds, Federal and state, engineer, and “advocate,” likely contributed to the appeal of the course to participants from different professions.

Customize course materials to address the specific challenges course participants face in their localities.

Several course participants stated that course content would be more effective if it were customized to address specific local issues. For example, several interviewees commented that material in the course dealing with multi-lane expressways or rural safety was not relevant to New York City. The aspect of the course most often singled out as useful or inspiring was the field exercise where participants diagnosed problems and developed recommendations to address location-specific issues.

GEORGIA

PROGRAM IMPLEMENTATION

In 2006, Georgia had 148 pedestrian fatalities, ninth highest in the nation. Georgia's FHWA Division office worked with GDOT to plan and implement Program activities. Since bicycle and pedestrian safety was selected as one of the emphasis areas for the state's Strategic Highway Safety Plan, GDOT requested technical assistance technical assistance in developing its State Pedestrian Safety Action Plan to be included in the Strategic Highway Safety Plan.

GDOT offered the "Developing a Pedestrian Safety Action Plan" course before the other courses because they wanted to promote safety planning. In subsequent course offerings, GDOT targeted their invitations to people who they thought would have the most significant impact on pedestrian safety. Working with MPOs, GDOT continues to promote the courses around the state.

Table A2. Pedestrian Safety Activities in Georgia

Activity	Fiscal Year		Total
	2006	2007	
Developing a Pedestrian Safety Action Plan (2-day)	1	0	1
Designing for Pedestrian Safety (2-day)	0	2	2
Technical Assistance	1	0	1
Total	2	2	4

REACTION

Interviewees reported that course participants were very pleased with the training. They felt that the courses:

- Raised awareness about pedestrian safety;
- Introduced attendees to techniques for assessing pedestrian safety problems and developing strategies to address them; and
- Were relevant to their jobs.

Participants spoke favorably about the periodic conference calls and web conferences, saying that the events:

- Provided useful information on current pedestrian safety initiatives in cities and states around the country;
- Helped them learn from other locations regarding best practices in the process for developing the PSAP;
- Provided access to presentations that have useful information to share; and
- Allowed participants to share ideas and learn from each other.

GDOT was pleased with the technical assistance provided through the Focused Approach Program. The consultant helped them make recommendations for improving pedestrian safety through changes in state policies.

OUTCOMES

Program activities improved awareness of pedestrian safety issues

Program activities increased awareness of pedestrian safety problems among transportation professionals and agencies. This was especially true for engineers who attended the “Designing for Pedestrian Safety” course.

The pedestrian safety audit done on a location that GDOT had flagged for improvements provided GDOT with information and ideas on pedestrian safety problems and countermeasures for that location

The courses included an exercise in which students analyzed a real-world location with pedestrian safety problems and recommended improvements. By choosing a location where GDOT plans to enhance walkability and pedestrian safety, course attendees provided GDOT with a practical list of possible design elements that could increase pedestrian safety in the chosen area. GDOT is currently working with a consultant on a safety improvement project at this location. This project will include some of the proposals generated by feedback obtained in the course.

The consultant working on the project noted, “GDOT has always been open to new ideas on pedestrian safety but he noted a real shift with the [Ponce] project. The scope of work was more specific and more complete—not the typical generic version.” He felt that “there had been some impact as a result of the Focused Approach to Pedestrian Safety workshops.” He said that GDOT engineers were “looking at more options—traffic calming types of solutions such as reducing the number of through lanes.” He also indicated that these approaches are unusual for GDOT to consider because the proposals might increase traffic delay. However, “the impact is not so significant for vehicles and the proposed improvements for pedestrian safety were more important.”

Developing the Pedestrian Safety Action Plan prior to offering the design course was important to provide a comprehensive approach to pedestrian safety rather than “jumping to solutions.”

GDOT felt that beginning the training with the PSAP course was instrumental in helping attendees understand the issues before identifying the solutions.

The technical assistance in the Focused Approach to Pedestrian Safety Program helped to identify priority issues for Georgia’s Pedestrian Safety Action Plan. Engaging the Atlanta Regional Commission in this process was beneficial in bringing municipal partners to the table in the development of the plan.

A number of the recommendations in the PSAP were based on the knowledge gained from the technical assistance in the Focused Approach to Pedestrian Safety Program. These recommendations include:

- Integrating pedestrian considerations in project development
- New policies on pedestrian signals (countdown timers, leading pedestrian intervals)
- Updates to the driver’s manual to include pedestrian safety issues
- A plan to identify education programs for pedestrian safety
- Promotion of pedestrian safety with messages on buses
- Increased speed enforcement in high-volume pedestrian areas

These recommendations/policy changes are important to provide tools for promoting pedestrian safety. Municipalities are encouraged to implement them (although GDOT cannot compel them to). Including the municipalities in the PSAP development process was important to achieve buy-in from local governments.

The Atlanta Regional Commission considered recommendations from the training when writing the Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan (September 2007).

Because of the training, ARC identified a number of recommended practices for the Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan: targeting investments to high-crash corridors, implementing “complete streets” practices in projects, and adding or improving crossings at un-signalized intersections and mid-block locations. In addition, ARC plans to update the Transportation Improvement Program blueprint to include pedestrian and bike projects using a formula for project prioritization which that was developed for the out of the 2007 bicycle and pedestrian safety plan.

Program activities have contributed to changes in how local governments address pedestrian safety

After participating in the courses, several local governments in the Atlanta area have contacted the ARC bicycle/pedestrian coordinator for advice and other resources on

pedestrian safety design. They have also turned to ARC for advice and feedback on their local PSAP.

SUGGESTION FOR PROGRAM IMPROVEMENTS

Increase the number and frequency of courses

Demand for the courses far exceeded the available training capacity. GDOT has had to turn away many people who wanted to participate once the courses were full. Offering more courses and offering them more frequently would expand the reach of the Focused Approach to Pedestrian Safety to include everyone who wants to participate.

Include content on incorporating pedestrian safety considerations as a standard part of the project development process.

One of the most common problems cited by interviewees was that pedestrian safety is frequently addressed as an afterthought, a task that is outside the normal project development process. The Focused Approach to Pedestrian Safety courses could emphasize the importance of including pedestrian safety elements in the normal project development process and perhaps provide suggestions for process changes to address this problem.

Include components for bike safety and ADA compliance

It is sometimes difficult for transportation agencies to broaden their congestion-oriented planning and operations to consider non-motorized transportation and ADA compliance. Under such conditions, sending staff to a single pedestrian-related training event is difficult. It would be doubly difficult to, later on, send staff to ADA training and then to training on bicycle safety. Offering a single course covering these three topics would decrease the burden on attendees and their agencies.

Improve outreach to senior managers so that they understand the importance of supporting pedestrian safety initiatives and communicate this to employees directly involved in planning and designing transportation projects.

One interviewee stated that it would be beneficial to have “more direct communication between upper levels of organizations so that information about these types of initiatives spread to those who are working with these issues every day.” She also felt that “high-level managers in the various transportation-related organizations have not spread the word to people who actually do the work about being a focus state and what that means.”

Improve outreach to notify stakeholders of upcoming conference calls and web conferences.

Currently, notification about impending conference calls and web conferences is done informally. This haphazard method is not always sufficient to notify all interested stakeholders. Implementing a formal procedure for announcing upcoming events would help address this problem.

CHICAGO

PROGRAM IMPLEMENTATION

With 48 pedestrian fatalities in 2007, Chicago has more pedestrian fatalities than all but two other cities—Los Angeles and New York City. With the support of FHWA's Illinois Division Office, the Chicago Metropolitan Agency for Planning (CMAP) coordinated the delivery of the Focused Approach to Pedestrian Safety activities. These included four courses in 2006 and 2007 and occasional participation in the Program's periodic teleconferences calls and web conferences. CMAP also received technical assistance in the analysis of pedestrian safety data from the Chicago metropolitan area.

Table A3. Pedestrian Safety Activities in the Chicago Metropolitan Area

Activity	Fiscal Year		Total
	2006	2007	
Developing a Pedestrian Safety Action Plan (2-day)	1	0	1
Designing for Pedestrian Safety (2-day)	1	0	1
Planning and Designing for Pedestrian Safety (3-day)	0	2	2
Technical Assistance	x	NA	
Total	2	2	4

REACTION

CMAP and the FHWA Division Office staff were taken aback upon learning that the City of Chicago had more pedestrian fatalities than almost every other city in the United States. When FHWA notified CMAP about the extent of Chicago's pedestrian safety problems, CMAP was in the process of developing a bicycle and pedestrian plan. CMAP put the plan on hold until it conducted a thorough analysis of pedestrian safety data to understand the nature of the pedestrian safety problems in the metropolitan area. CMAP also decided to delay offering the pedestrian safety courses until after the data analysis so that the courses could address the most common pedestrian safety problems in the Chicago area.

While CMAP regularly compiled transportation safety information—including pedestrian safety—it had never specifically analyzed data on pedestrian safety. CMAP and the City of Chicago requested technical assistance offered by the Focused Approach to Pedestrian Safety to conduct a thorough data analysis with the assistance of the PBIC.

Every interviewee was pleased with the Program's pedestrian safety courses. They felt that the courses:

- Raised their awareness of pedestrian safety problems in the Chicago area;
- Generated enthusiasm for improving pedestrian safety;
- Expanded their knowledge of countermeasures to address problem locations;
- Provided a forum for a cross-section of professionals to share ideas and concerns; and,
- Included practical pedestrian safety design and planning techniques;

Only one interviewee had participated in the periodic teleconferences and web conferences. He thought that they provide the opportunity to discuss pedestrian-safety-related problems and solutions with peers in other regions parts of the country.

OUTCOMES

Program activities emphasized the importance of pedestrian safety among transportation professionals and agencies.

FHWA's involvement in the Program, combined with out-of-state course instructors, has given the topic a gravitas and credibility that was absent from locally produced awareness and training initiatives.

Program activities spurred various pedestrian-related initiatives in the Chicago area.

- The City of Chicago pedestrian safety staff is working with the city's police department to improve the consistency and comprehensiveness of data collected at crash scenes.
- Using the results of the data analysis performed with technical assistance from PBIC, the City of Chicago is currently developing a pedestrian plan that will outline a strategy for planning and developing pedestrian improvements throughout the city.
- The Mayor of Chicago formed the Pedestrian Advisory Committee to improve pedestrian safety and promote policies and practices to enhance the overall pedestrian environment.
- CMAP used course content on pedestrian safety countermeasures in developing projects and recommendations for improving pedestrian safety. These were eventually included in CMAP's 2030 Regional Transportation Plan.
- Using the toolkit from the courses, a CMAP contractor worked with several suburbs to assess roadway geometries that negatively influenced pedestrian safety. This effort generated several projects using countermeasures such as curb bulbouts, median islands, and traffic operations changes. These projects were submitted to IDOT for Highway Safety Program funding. IDOT ultimately chose not to fund these projects.

- CMAP used the information from the workshops to develop pedestrian-safety-related projects and recommendations that were incorporated into CMAP's 2030 Regional Transportation Plan.
- CMAP has hired a consultant to help develop a detailed, data-driven Pedestrian Safety Action Plan. The first phase of this task was to conduct a study of existing pedestrian safety conditions. The draft of the report from this study is currently being reviewed. Phase II of this task will use the information from the "existing conditions" report to write a Pedestrian Safety Action Plan.
- CMAP has suggested changes to the pedestrian safety procedures in IDOT's Bureau of Design and Environment Procedures Manual. IDOT is currently evaluating these policy changes.
- Influenced by the Focused Approach to Pedestrian Safety courses, several suburbs have begun using pedestrian safety countermeasures such as:
 - Bulb-outs
 - Pedestrian countdown signals; one suburb has installed these at all signalized intersections
 - Leading pedestrian intervals

Participants in Program activities have developed an informal "community of practice" that helps them learn from each other

Each of the course offerings had a diverse set of attendees—engineers, planners, managers, advocates, consultants—working in different pedestrian-related fields—public works departments, city and state departments of transportation, consulting firms, public safety agencies, transit providers, and others. This is a mix of people who probably would not have come together were it not for the courses. Attendees have taken advantage of this opportunity to expand their network of colleagues and create a diverse "community of practice."

SUGGESTIONS FOR PROGRAM IMPROVEMENT

Increase the number and frequency of courses

After delivering all the courses provided by the Program, there was still substantial need and demand for more training. Staff from the FHWA Resource Center stepped in and delivered additional courses using the curriculum designed for the Focused Approach to Pedestrian Safety Program.

Create a "train-the-trainer" initiative that would sustain local delivery of the courses over time.

Interviewees agreed that there was a need and interest in delivering more courses. Some interviewees felt that the courses should be delivered regularly—perhaps once a year—to update those who have already taken the courses and as an opportunity to train new employees. By training local people to deliver the courses, CMAP and others would be able make decisions on offering the courses independently of FHWA.

Lessons Learned:

- Conduct data analysis to understand the region's pedestrian safety problems before moving forward with the training.
- Analyze pedestrian safety data as a regular part of safety data analysis.

CALIFORNIA

PROGRAM IMPLEMENTATION

FHWA selected California as a focus state because of its high number of pedestrian fatalities—709 in 2006, more than any other state in the country. With the support of FHWA’s California Division Office and FHWA’s Resource Center, Caltrans led a comprehensive effort to deliver pedestrian safety training statewide. Under the coordination of the Caltrans Division of Transportation Planning Bicycle and Pedestrian Program, 13 pedestrian safety courses were offered throughout the state in fiscal years 2006-2007. In addition, several Californians augmented their training by participating in periodic teleconferences and web conferences sponsored by the FHWA’s Pedestrian Safety Program.

Table A4. Pedestrian Safety Courses in California

Activity	Fiscal Year		Total
	2006	2007	
Developing a Pedestrian Safety Action Plan (2-day)	3	1	4
Designing for Pedestrian Safety (2-day)	0	5	5
Planning and Designing for Pedestrian Safety (3-day)	1	3	4
Total	4	9	13

REACTION

Interviewees reported that course participants were very pleased with the courses. Participants felt that the courses:

- Were relevant to their jobs;
- Expanded their knowledge of pedestrian safety issues;
- Included practical pedestrian safety design and planning techniques; and
- Provided a useful forum for a cross section of professionals to share ideas and concerns.

They were also pleased that the courses were offered throughout the state because state and local government agencies are reluctant to authorize travel for their employees.

Interviewees spoke favorably about the periodic conference calls and web conferences, saying that the calls:

- Offered an opportunity to learn from peers about initiatives around the country;
- Focused the conversation on state-level issues; and
- Generated useful discussions and presentations on training techniques.

OUTCOMES

Program activities improved awareness of pedestrian safety issues

There was a consensus among interviewees that Program activities have created momentum for improved pedestrian safety initiatives at the state and local levels. For example, Caltrans, which has had four employees dedicated solely to pedestrian and bike safety since the late 1990s, took advantage of Program activities to focus and expand its pedestrian safety work. The courses have also given pedestrian safety issues legitimacy as a transportation issue rather than as an afterthought. Increasing awareness has been effective in stimulating dialogue on pedestrian safety that probably would not have occurred without the Program.

Program activities spurred various pedestrian safety initiatives throughout the state

The courses provided engineers and planners with strategies to incorporate pedestrian safety in their work. Caltrans staff said that some localities contacted them after the course requesting guidance on designing and implementing improvements to pedestrian facilities, such as curb extensions, marked crosswalks, median islands, and reduced curb radii.

After learning about the FHWA's pedestrian safety training through his membership in the State Strategic Highway Safety Committee, the director of public works in a rural county in Northern California attended the "Designing for Pedestrian Safety" course. After the course, he coordinated additional training in his part of the state so that his staff could participate. The training provided his staff with a deeper understanding and appreciation of pedestrian safety issues and established new relationships among staff from the planning, engineering, and public health departments. Resulting pedestrian safety improvements include revising subdivision design regulations by requiring bike lanes and offset sidewalks; narrowing streets to ten-foot travel lanes with four-foot shoulders; and adding bulb-outs, roundabouts, speed humps, and crosswalks. The county is also working on updating its general plan to reflect Complete Streets guidelines.

In a Los Angeles suburb, the training was helpful in building relationships among engineers, planners, police, and transit operators. The city's transportation planner continues to provide guidance to colleagues on pedestrian safety issues covered in the course. Some of the specific strategies she has seen implemented include zebra crosswalk striping, pedestrian refuge islands, in-pavement crosswalk lighting, and new

pedestrian signals. In addition, the city is adding pedestrian countdown signals as they replace outdated signals. City officials are incorporating elements of the FHWA's pedestrian safety training into the land use and circulation elements of their long-range land-use and zoning plans.

Program activities improved the ability of public officials to address pedestrian safety issues

Program activities have improved the ability of local governments to effectively and productively communicate the importance of pedestrian safety by providing real-life examples of "before and after" cases as well as qualitative and quantitative means of evaluating and explaining different strategies. One interviewee said that she has used slides from the courses to help explain pedestrian safety considerations for a project in her jurisdiction.

Program activities have prompted follow up training initiatives

- Because of the success of the courses, demand for training quickly outstripped its supply. Caltrans worked with the FHWA Resource Center to offer 13 additional courses to augment the courses delivered through the FHWA's Pedestrian Safety Program.
- To expand the reach of the training material, Caltrans and FHWA Resource Center staff are creating an on-line course on developing a PSAP. The course will be available to local jurisdictions on demand. This online course will include detail not included in the face-to-face training.
- Based on feedback from attendees and their own assessment of pedestrian safety needs around the state, Caltrans is working with the FHWA Resource Center to develop a template to assist local governments in developing PSAPs. There will be several different versions of the template to make it easier for local governments to customize the PSAPs to their own conditions.
- The Focused Approach to Pedestrian Safety Program has increased interest in pedestrian safety among professionals, resulting in the Pedestrian Safety and Advocacy Conference held in Sacramento in September 2008. This conference was a forum to strengthen capacity and collaboration among pedestrian safety officials and advocates for the developing and implementing programs and policies to improve pedestrian safety.
- Local governments have used the course materials—especially the PowerPoint presentations—to conduct their own training. This has allowed these agencies to deliver high-quality training locally and at minimal cost.

- California Walks, a statewide pedestrian advocacy group, has used the material from the two-day “Developing a Pedestrian Safety Action Plan” course to develop an abbreviated one-day course. This lessens the burden on transportation agencies that might not be able to send staff to a two-day course.

SUGGESTIONS FOR PROGRAM IMPROVEMENT

Increase the number and frequency of courses

This recommendation addresses two problems: First, there has been more demand for the courses than there are training slots available. Offering more courses would address this problem. Also, demand for courses will probably continue to grow as new employees attend and as previous attendees reinforce their skills and keep current on the state of the practice. Offering courses regularly would address this problem.

Hire in-state (especially bilingual) trainers who can address problems unique to California and who can tailor courses based on local need

Ultimately, one of the best ways to sustain the training efforts begun by the Program might be through hiring in-state trainers. These trainers could keep course content current and relevant based on the individual needs of the state and of the various regions within the state.

Ensure that local in-kind matches for courses—logistics and hosting the event—do not require money or other resources that are prohibited by state law, especially travel; provide money for course planning logistics

Interviewees said that the local governments hosting courses were grateful that they did not have to spend money on trainers or training material. Also, delivering the training locally avoided the need for employees to travel to the course location, an important consideration given the reluctance of many states to fund employee travel. Nonetheless, several interviewees said that the logistics of course planning were complicated and time consuming and suggested that the FHWA assist in this task.

Distribute nationwide Focused Approach to Pedestrian Safety resources based on the extent of the pedestrian safety problem in the focus location.

Interviewees felt that Focused Approach to Pedestrian Safety resources could be better targeted to the locations most in need of pedestrian safety investments by allocating resources based on the extent of each state’s pedestrian safety problem.

MICHIGAN

PROGRAM IMPLEMENTATION

In 2002, there were 175 pedestrian fatalities in Michigan, the eighth highest in the country, making it a focus state for the Focused Approach to Pedestrian Safety Program. Michigan's FHWA division office worked with the MDOT to increase awareness of the Program and its training opportunities.

Before being designated a focus state, Michigan's Governor's Traffic Safety Advisory Commission had already begun the process of developing a Pedestrian and Bicycle Safety Action Plan as part of the state's Strategic Highway Safety Plan. This group consists of representatives from the Governor's office, the Departments of Community Health, Education, and Transportation as well as the State Police, the Office of Highway Safety Planning, the Office of the Services to the Aging, and three representatives from the county, city, and township level.

The focus state designation gave MDOT additional resources to promote pedestrian safety initiatives that will be included in the Strategic Highway Safety Plan. MDOT decided to offer the "Designing for Pedestrian Safety" course first because it provided practical safety countermeasures that could be used to engage local communities in pedestrian safety education.

Table A5 Pedestrian Safety Activities in Michigan

Activity	Fiscal Year		Total
	2006	2007	
Developing a Pedestrian Safety Action Plan (2-day)	0	1	1
Designing for Pedestrian Safety (2-day)	4	0	4
Planning & Designing for Pedestrian Safety (3-day)	0	1	1
Total	4	2	6

REACTION

MDOT felt that the focus state designation raised the visibility of pedestrian safety and encouraged them to consider pedestrian safety in all their efforts. MDOT staff who worked on safety issues initially thought that the focus state designation reflected poorly on their pedestrian safety work. However, they came to appreciate the training opportunities the designation provided and the momentum it gave to pedestrian safety improvements.

Interviewees said that course attendees were very pleased with the courses. They felt that the courses:

- Raised awareness about pedestrian safety;
- Increased engineers understanding of how to implement pedestrian safety countermeasures and crash reduction strategies;
- Offered opportunities to network with a diverse set of professionals to encourage collaboration on pedestrian safety; and
- Provided the statewide team working on pedestrian and bicycle safety issues in the Strategic Highway Safety Plan a better understanding of pedestrian issues and a broader set of solutions for addressing them.

Interviewees spoke favorably about the conference calls and web conferences, saying that the events:

- Provided useful information on current pedestrian safety initiatives in cities and states around the country; and
- Allowed participants to share ideas and learn from each other.

OUTCOMES

Program activities brought together professionals from different disciplines to jointly address pedestrian safety challenges.

Course attendees included transportation and public health professionals and agencies. By encouraging participation from agencies and professionals not directly related to transportation, the message of the courses reached a broader audience. Interviewees stated that the courses promoted better awareness and understanding of the connection between planning, engineering, and public health and safety. The Building Healthy Communities program managed by the Michigan Department of Community Health includes physical activity as one of its primary components. The training provided by the Program dovetailed nicely with the goal of bringing pedestrian and bicycle issues into master plans.

Program activities helped develop relationships among safety professionals from a variety of disciplines and encouraged an interdisciplinary approach to addressing safety issues.

The Michigan Department of Community Health has been working with MDOT for several years. The Program gave them an opportunity to promote pedestrian safety through this partnership, creating advocates for the issue.

Program activities helped draw funding to pedestrian safety issues.

Until 2006, Michigan did not use any of its targeted safety funding to address pedestrian safety. Detroit requested and received safety money to install pedestrian countdown signals after learning about them at the courses.

Program activities spurred various pedestrian safety initiatives.

State and local governments have used the information and visibility the Program activities to develop their own pedestrian safety initiatives. For example, Detroit—designated a pedestrian safety focus city—now considers pedestrian safety enhancements in all its projects, including signal modifications. New strategies resulting from the training include:

- Adding 185 countdown pedestrian signals at city intersections; plans are underway for 175 more
- Installing zebra crosswalks
- Specifying high visibility signs

MDOT worked with the Michigan Attorney General's office to create a presentation on pedestrian design and liability.

Some course participants felt that their ideas for pedestrian safety improvements were not seriously considered by their agency or jurisdiction. Policy makers have sometimes resisted innovative techniques out of concern that the new approaches might cause unintended safety problems and open the jurisdiction up to liability lawsuits. Policy makers expressed concerns about strategies such as road diets, mid-block crossings, and staggered crosswalks.

To address this concern, MDOT develop a presentation that demonstrated the safety and efficacy of these new pedestrian safety applications. With the help of the Michigan Attorney General's Office, the presentation also included liability information specific to Michigan. The presentation has been successful in easing liability concerns. MDOT has delivered this presentation several times, including at a statewide conference on community health. Plans have been made to present it to the Michigan annual traffic safety summit, the County Road Association, and the Institute of Transportation Engineers.

Program courses helped with the creation of pedestrian safety audits.

Staff from FHWA's Michigan division office are using the information from the Program courses and from another FHWA course on road safety audits to promote pedestrian safety audits. Traffic and safety specialists volunteered their time to implement the first road safety audit. Recommendations to improve pedestrian safety were developed and presented to MDOT's executive committee. Managers at MDOT are exploring ways to continue the audits.

The Designing for Pedestrian Safety course has helped participants understand the links between ADA compliance and good design.

Installing ramps for ADA compliance is not always done correctly. The Focused Approach to Pedestrian Safety course provided useful information on the correct design and placement of ramps and crosswalks. Representatives from FHWA's Michigan office have collected photographs of appropriate designs to address both ADA and pedestrian safety requirements.

SUGGESTIONS FOR PROGRAM IMPROVEMENT

Increase the number and frequency of courses

The six courses offered thus far have been well attended and well received. However, there is still high demand for the courses, especially outside the state's major cities.

Conduct informal peer reviews of PSAPs.

Building on lessons learned from other states, representatives from FHWA or focus state peers could offer suggestions for improvements or changes to PSAPs.

Conduct a study to understand what safety-enhancement strategies have been most effective in improving pedestrian safety.

Providing empirical evidence of the effectiveness of new procedures would give added support when introducing strategies. This information would provide professionals with the ability to promote certain approaches to address specific problems, e.g., the most effective strategies for mid-block crossings based on road type and volume of traffic and pedestrians.

Include content including pedestrian safety considerations as a standard part of the project development process.

One of the most common problems cited by interviewees was that pedestrian safety considerations are frequently addressed as an afterthought, a task that is outside the normal project development process. The Focused Approach to Pedestrian Safety courses should emphasize the importance of including pedestrian safety elements in the normal project development process and perhaps provide suggestions for process changes to address this problem.

Include components for bike safety and ADA compliance

It can be difficult for transportation agencies to broaden their congestion-oriented planning and operations to consider non-motorized transportation and ADA compliance. Integrating these topics into a single training opportunity would provide a more comprehensive approach.

LESSONS LEARNED

- Having senior management introduce the courses ensured their buy-in to the goal of pedestrian safety and signaled to course attendees that pedestrian safety is a high priority in their organization.
- Conducting the course safety audit in a location that is targeted for improvements provides valuable suggestions for the expected pedestrian safety improvements.
- Providing attendees with information about course content prior to the course has been helpful.

Appendix B. Interview Questions

Interview Protocol for Focused Approach to Pedestrian Safety Evaluation

Background:

- What are the pedestrian safety responsibilities of your organization?
- What are the pedestrian safety responsibilities of your job?
- What are the main safety-related (but not necessarily pedestrian-related) concerns of your organization and in your city and state?
- What are the main pedestrian-safety-related concerns of you organization and your city/state?

Focused Approach to Pedestrian Safety Program Activities:

- What Program activities have you participated in?
- What is the relevance of the learning content to your job responsibilities?
- What are the most important information (skills, tools, policies, etc.) you took from these activities?
- How were you chosen to participate in these activities?

Pedestrian Safety Initiatives:

- What pedestrian safety initiatives have you, your organization, or your associates undertaken as a result of participating in the Program?
- What was your process for choosing these initiatives compared to other initiatives or no initiatives?
- What role did Program activities play in influencing your decision to undertake these initiatives?
- Which of the Program activities were most effective in spurring or enabling action? Which were least effective? Why?

Results:

- What were the results of these activities? For example, what changes, if any, have occurred in safety policies, practices, behaviors, or institutions?
- What were the key success factors and obstacles in achieving these results?
- What is the likelihood these initiatives would have occurred or succeeded in the absence of the Focused Approach to Pedestrian Safety Program?
- What were the key success factors and obstacles in choosing and undertaking these initiatives?
- Which types of Program activities were most effective in spurring or enabling action? Which were least helpful? Why
- What are your plans for future pedestrian safety initiatives?

Recommendations and Lessons Learned

- What are your recommendations for the design and implementation of future pedestrian safety training programs?
- What other things could FHWA do to assist you in addressing pedestrian safety in your state?
- What lessons have you learned from planning and implementing pedestrian safety initiatives?