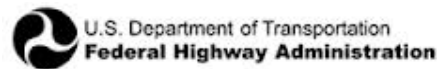


Roadway Safety Professional Capacity Building Program



Through engaging peer workshops, the RSPCB Program matches agencies seeking solutions to roadway safety issues with trailblazers who have addressed similar challenges and emerged with a roadmap and noteworthy practices for approaching the issue.



WEST VIRGINIA PEER EXCHANGE: STREAMLINING HIGHWAY SAFETY IMPROVEMENT PROGRAM PROJECT DELIVERY

An RSPCB Peer Exchange

INTRODUCTION

The West Virginia Division of Highways (WV DOH) hosted a Peer Exchange to share information and experiences for streamlining Highway Safety Improvement Program (HSIP) project delivery. The event was held September 23 to 24, 2014 in Charleston, West Virginia. This report summarizes the results of the event, which was supported by the Federal Highway Administration (FHWA) Office of Safety's [Roadway Safety Professional Capacity Building Program](#) and the FHWA West Virginia Division Office.

The FHWA Office of Safety and the FHWA West Virginia Division Office worked with WV DOH to convene representatives from four peer States, including Kentucky, North Carolina, South Carolina, and Tennessee. Representatives from West Virginia included members of the safety team in WV DOH's Traffic Engineering Division. The purpose of the peer exchange was to share noteworthy practices for streamlining HSIP project delivery and identify opportunities for West Virginia to advance HSIP project delivery from planning through design and construction. The full agenda is available in [Appendix A](#) and the list of participants is available in [Appendix B](#).

OBJECTIVES

The WV HSIP peer exchange had the following objectives:

- Learn about the current state of HSIP in West Virginia.
- Explore best practices for streamlining HSIP project delivery in peer states.
- Identify the key takeaways for a successful HSIP.
- Compile recommendations specific to WV DOH based on peer state experiences.
- Deliver recommendations to WV DOH and FHWA leadership.

SCOPE

During the first day of the exchange, the peer states and WV DOH presented an overview of their respective HSIPs. The States compared and discussed administration, program development, project management, and technical accomplishments. Peer states responded to questions from WV DOH about their HSIPs and identified key takeaways.

States described specific details about project delivery during peer presentations on the second day of the event. The following common themes emerged regarding practices that successfully streamline HSIP project delivery:

- Provide adequate staffing, using consultant services and effective university partnership programs as needed.
- Implement good project programming and tracking practices.
- Allow for a backlog of projects in the implementation pipelines.
- Coordinate with key partners, including design and environmental staff.

- Establish a clear plan for effective community communication and involvement.
- Develop abbreviated project plans and performance-based practical designs.

After the peer states presented their strategies for streamlining HSIP project delivery, the group prepared recommendations for WV DOH on how to apply some of these practices in West Virginia.

BACKGROUND AND KEY TAKEAWAYS

A WV DOH representative provided an overview of the agency's HSIP program. All projects using federal safety funding (on or off the State highway system) must meet one of the following criteria:

- **Proactive Measure: Systemwide Solutions.** West Virginia's current Strategic Highway Safety Plan designates systemic strategies as vital to reducing fatalities and serious injuries resulting from highway crashes. Other systemic strategies may be identified that can be used systemwide to reduce fatalities and disabling injuries.
- **Reactive Measure: Severe Crash Experience.** Projects meeting this criterion must provide a corrective improvement to a location with a disabling injury and/or fatal crash—a severe crash experience. Severe crash experiences may be demonstrated in reports generated through the State's Crash Records Database or discovered through emerging safety needs with fatal and/or disabling injury crash experiences.
- **Safety Assessment / Safety Needs Identification.** Safety needs can be identified as a result of a Road Safety Audit, which focuses on specific locations or corridors to identify potential safety issues and countermeasures. Two people can provide analysis for a Road Safety Audit, or the audit can involve a larger team of safety experts. Innovative and creative safety countermeasures can be implemented to remove or minimize a particular safety concern, which may or may not have an identified crash reduction factor.

Before a project is included or funded as a highway safety project, the Mobility and Safety Section of Traffic Engineering must review, approve, and sign off on project programming documents or agreements.

Other key points regarding West Virginia's HSIP program include the following:

- WV DOH has reorganized to improve coverage on safety topics, however a number of vacancies exist in the new structure. Furthermore, approximately 70 percent of WV DOH is eligible to retire and the loss of expertise is a significant problem. WV DOH does not use consultants to assist with program delivery.
- High friction surface treatments, Safety Edge, and retroreflectivity are program efforts which have been attempted, but are difficult to sustain due to staffing needs and other commitments.
- West Virginia has not developed a backlog of projects due to lack of resources. Approximately 20 percent of its projects are proactive. The problem is not in identifying projects but in getting the districts to complete design plans. The issues is with competing priorities, such as the paving program.

*West Virginia
received a more than
40 percent increase in
HSIP funding from FY
2012 to FY 2013*

Recent increases in safety funding in West Virginia have created a challenge for the limited staff in the DOH to effectively deliver the HSIP. WV DOH received Section 154/164 Sanction Funding this year, and these funds must be obligated within one year; the minimum time frame for WV DOH to develop a project is eighteen months. In FY 2012 under SAFETEA-LU, West Virginia received 7.5 million in Section 154/164 funds and the following fiscal year under MAP-21, funding increased to \$9.3 million. Similarly, HSIP funding increased from \$15 million in FY 2012 under SAFETEA-LU to \$25.5 million in FY 2013 under MAP-21, an increase of over 40 percent in a single year.

West Virginia has taken steps to strengthen its HSIP program and these accomplishments are important to recognize as they demonstrate WV DOH's commitment to safety. WV DOH is in the process of finalizing its Safety Management System (SMS). Once the new system is in place it will provide an array of network screening and linear referencing tools. The peer team agreed that it will be important for West Virginia to identify how the State wants to use data to prioritize projects. There is a large effort in an HSIP spent analyzing data and creating

lists of prioritized projects. Staffing is required for this stage but collaboration and partnerships are also required to move the projects through implementation.

The peer team discussed all components of West Virginia's HSIP, including planning, implementation and evaluation. The State should consider the following as it updates its program.

Planning

- The SMS will be a valuable tool for analyzing and prioritizing projects, however, human resources and skillsets are needed for network screening and detailed project analysis.
- Project prioritization in West Virginia is based on target-area funding goals. All other projects compete based on benefit cost analyses. The State needs a larger pool of highly effective candidate projects for responsiveness- and systemic-type projects.
- Overall program coordination is limited due to staffing gaps.

Implementation

- Tracking HSIP projects should be a priority. Project tracking, particularly the sequence of letting contracts, is critical in timely project delivery and adherence to project budget.
- All projects are programmed individually in the State Transportation Improvement Program (STIP), which can delay implementation by up to 3 months if a modification is required. A potential solution might be for West Virginia to establish a general line item in the STIP to expedite this process.
- The State should consider employing an expedited design/letting process.
- The State should consider implementing performance-based practical design projects to maximize investments.
- The State should prepare public outreach communications plans to addresses issues up front for controversial and innovative projects.
- Safety projects should be elevated to give them equal priority with other projects. Elevating the importance of safety projects is another key element which requires collaboration, communication, and partnerships.

Evaluation

- Evaluation assures that decisions being made have the impact intended, and helps the agency make better decisions in the future. Individual before and after evaluations for safety projects require human resources and specific skillsets to effectively evaluate a program and provide feedback toward the planning process.

RECOMMENDATIONS

The peer team generated a number of specific recommendations to assist WV DOH in achieving its HSIP goals. The following recommendations were presented to WV DOH and FHWA West Virginia Division Office leadership at the conclusion of the meeting.

Recommendation #1: Refine HSIP Elements

A successful safety program requires a clear definition of the program elements and how they will be managed. WV DOH should develop a spending and investment plan that supports program goals. The program should strike the right balance between hot spot and systemic improvements. The program should also have an established methodology for developing projects, including, but not limited to, timelines for various project phases and goals for designing and letting projects. It is also essential to conduct evaluations for use in future programming decisions and to gain support for the program.

Recommendation #2: Expand HSIP Resources

Peer States suggested that WV DOH consider creating a detailed staffing plan for safety projects. Current staffing levels versus ideal staffing levels should be established, and then strategies for closing the gap should be evaluated by program management. Peer states have had success with a combination of in-house staff, on-call contractors, and university partnerships. The right mix of these different resource types can provide flexibility for WV DOH staff priorities.

Create staffing plan and determine optimal mix of in-house staff, on-call contractors, and university partnerships to effectively implement the program

Recommendation #3: Streamline Project Delivery

Once a programmatic framework and methodology for project selection are established, peers suggested specific approaches to achieve streamlined program delivery. Peer State participants suggested grouping projects together in the STIP, and exploring the use of alternate project implementation pipelines, such as on-call contracts, for routine safety projects. Regardless of the approach, it is necessary to establish a backlog of projects. Some states suggested over-programming or planning two years out, but others took a less rigid approach.

NEXT STEPS

The West Virginia FHWA Division Office will work with WV DOH to implement these recommendations and improve HSIP project delivery efforts.

APPENDIX A

WV HSIP Peer Exchange: Streamlining Project Delivery Charleston, West Virginia September 23-24, 2014

Tuesday, September 23, 2014

- 8:00 Welcome**
Tom Smith, FHWA Division Office, and Cindy Cramer, West Virginia Division of Highways
- Overview & Introductions (FHWA)**
- 8:30 Current State of HSIP in WV**
Donna Hardy, West Virginia Division of Highways
- 9:30 Break**
- 9:45 Roundtable** - Visiting States (Kentucky, North Carolina, South Carolina, and Tennessee) will provide an overview of their HSIP, covering the same items addressed by the host state.
- 12:00 Lunch**
- 1:00 Key Takeaways** - Participating states identify and discuss noteworthy practices from the HSIP overview presentations.
- 1:30 Discussion of WV Challenges and Desired Future State of WV HSIP**
Donna Hardy, West Virginia Division of Highways
- 2:30 Break**
- 2:45 Peer Presentations: Streamlining HSIP Project Delivery**
Kentucky: Moving Ahead for Progress - HSIP in Kentucky - *Tracy Lovell, Kentucky DOT*
North Carolina: NC DOT HSIP 2014 - Program Delivery - *Kevin Lacy, North Carolina DOT*
South Carolina: SC DOT Project Development Process - *D. Brett Harrelson, South Carolina DOT*
Tennessee: Project Delivery Innovative Methods - *Brian Hurst, Tennessee DOT*
- 4:30 Wrap-up** - Summarize highlights of Day 1 and provide a brief overview of Day 2 activities.
- 5:00 Adjourn**

Wednesday, September 24, 2014

- 8:00 Welcome back/recap**
- 8:15 Streamlining HSIP Project Delivery**
- 9:15 Key takeaways** - Participating States identify and discuss noteworthy practices from the streamlining HSIP project delivery presentations.
- 9:45 Break**
- 10:00 Develop recommendations/prepare report**
- 12:00 Lunch (on your own)**
- 1:00 Close-out Meeting** - *Visiting states present recommendations to FHWA and DOH leadership, with presentations from the following people:*
Greg Bailey, WV DOH State Highway Engineer
Todd Rumbaugh, WV DOH Deputy State Highway Engineer - Construction & Development
Emiliano Lopez, FHWA Assistance Division Administrator
- 3:00 Adjourn**

APPENDIX B

WV HSIP Peer Exchange: Streamlining Project Delivery Registrant List

FHWA/Volpe	
Laura Black USDOT Volpe Center Cambridge, MA Business Phone Number: 617-494-2274 Business Email: laura.black@dot.gov	Keith Sinclair FHWA Resource Center Baltimore, MD Business Phone Number: 410-962-3742 Business Email: keith.sinclair@dot.gov
Karen Scurry FHWA Office of Safety West Trenton, NJ Business Phone Number: 609-637-4207 Business Email: karen.scurry@dot.gov	Susan Smichenko USDOT Volpe Center Cambridge, MA Business Phone Number: 617-494-3438 Business Email: susan.smichenko@dot.gov
KENTUCKY	
Jarrod Stanley Transportation Engineer Specialist Kentucky Transportation Cabinet Frankfort, KY Business Phone Number: 502-782-5539 Business Email: jarrod.stanley@ky.gov	Michael Vaughn HSIP Safety Engineer Kentucky Transportation Cabinet Frankfort, KY Business Phone Number: 502-782-4923 Business Email: mike.vaughn@ky.gov
Tracy Lovell Transportation Engineer Kentucky Transportation Cabinet Frankfort, KY Business Phone Number: 502-564-3020 Business Email: tracy.lovell@ky.gov	
NORTH CAROLINA	
Kevin Lacy State Traffic Engineer NCDOT Garner, NC Business Phone Number: 919-773-2800 Business Email: jklacy@ncdot.gov	Brian Mayhew Traffic Safety Engineer NCDOT Garner, NC Business Phone Number: 919-773-2886 Business Email: bmayhew@ncdot.gov
SOUTH CAROLINA	
Eric Hall Safety Project Development Engineer SCDOT Columbia, SC Business Phone Number: 803-737-2083 Business Email: hallse@scdot.org	Dan Hinton Safety and Traffic Engineer FHWA SC Division Office Columbia, SC Business Phone Number: 803-253-3887 Business Email: daniel.hinton@dot.gov
Brett Harrelson State Safety Engineer SCDOT Columbia, SC Business Phone Number: 803-737-3378 Business Email: harrelsodb@scdot.org	
TENNESSEE	
Timothy Armstrong Transportation Project Specialist Tennessee DOT Nashville, TN Business Phone Number: 615-253-5327 Business Email: shaun.armstrong@tn.gov	Brian Hurst Transportation Safety Manager Tennessee DOT Nashville, TN Business Phone Number: 615-253-2433 Business Email: brian.hurst@tn.gov

WEST VIRGINIA	
Cindy Cramer Director, Traffic Engineering Division West Virginia Division of Highways Charleston, WV Business Phone Number: 304-558-9442 Business Email: cindy.l.cramer@wv.gov	Emiliano Lopez Assistant Division Administrator FHWA WV Division Office Charleston, WV Business Phone Number: 304-347-5929 Business Email: emiliano.lopez@dot.gov
Tom Hammonds HSIP Coordinator West Virginia Division of Highways Charleston, WV Business Phone Number: 304-558-9595 Business Email: tom.h.hammonds@wv.gov	Jason Workman Director of Program Development FHWA WV Division Office Charleston, WV Business Phone Number: 304-347-5271 Business Email: jason.workman@dot.gov
Donna Hardy West Virginia Division of Highways Charleston, WV Business Phone Number: 304-558-9576 Business Email: Donna.J.Hardy@wv.gov	