

**Project No. BTS-06**

**MPO AND SHSO COORDINATION ON  
BEHAVIORAL TRAFFIC SAFETY**

**FINAL REPORT**

**Prepared for  
The Behavioral Traffic Safety Cooperative Research Program  
Transportation Research Board**

**of**

**The National Academies of Sciences, Engineering, and Medicine**

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Richard Denbow, Cambridge Systematics, was the Principal Investigator. The other authors of this report are Danena Gaines, Ryan Klitzsch, and Kensington Little with Cambridge Systematics and Stefanie Brodie with Toole Design Group.

## ABSTRACT

This report documents and presents the results of a study of coordination between metropolitan planning organizations (MPOs) and State Highway Safety Offices (SHSOs) on behavioral safety challenges. A series of surveys and interviews were conducted to identify the level of coordination between MPOs and SHSOs and behavioral safety, outcomes achieved, and opportunities to enhance coordination and collaboration. While most SHSOs and MPOs do not regularly collaborate, among those that do, there is a wide variation in the level of collaboration. The approaches to collaboration (and actions taken) can be classified into levels that range from ad hoc communication and general knowledge of agency contacts, to sustained and ongoing coordination with mutual responsibilities between the SHSO and MPO to implement behavioral safety programs. The levels of collaboration provide practitioners a framework to identify opportunities to initiate coordination and collaboration between a SHSO and an MPO. These steps may not be applicable to all situations and may be implemented in a different sequence depending on the activities and needs of the SHSO and MPO. This study provides a guide designed to provide SHSOs and MPOs resources and examples of approaches to enhancing collaboration, sharing resources, removing communication barriers, and coordinating on the SHSP and other safety plans.

# CHAPTER 1

## Background

### **Problem Statement and Research Objective**

No one wants to lose a loved one to a transportation-related crash, but annually fatalities have never dropped below 30,000 nationally since the statistics have been tracked (BTS 2023). A combination of transportation safety-related programs, some mandated by legislation and others spurred by good practice, are underway in every state. Major players including State Highway Safety Offices (SHSO), State Departments of Transportation (DOT), metropolitan planning organizations (MPO), and local governments implement safety planning and programming efforts.

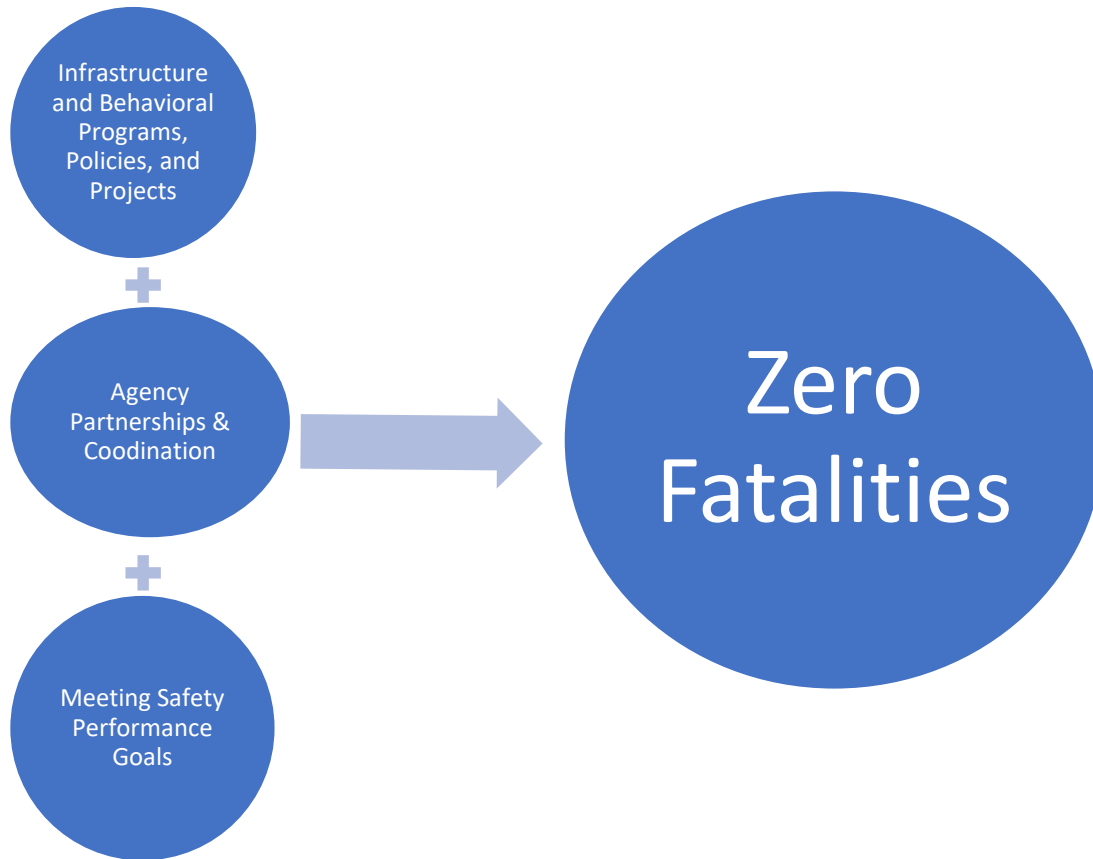
SHSOs administer grant funding provided by the National Highway Traffic Safety Administration (NHTSA) to fund effective behavioral safety countermeasures to reduce collisions. With the introduction of federal requirements for Metropolitan Planning Organizations (MPOs) to develop safety performance measures and targets, these organizations are increasingly committed to identifying programs, policies, and projects to help meet regional, and ultimately, statewide safety goals. The purpose of BTS-06 MPO and SHSO Coordination on Behavioral Traffic Safety is to identify methods and practices for building effective collaborations between SHSOs and MPOs.

Behavioral traffic safety could be enhanced by increased engagement between SHSOs and MPOs. The latter have a strong understanding of the regional transportation network, the capability to obtain and analyze local crash data, potentially the means and skills to develop transportation safety plans, and connections to local decision makers who can fund and implement investments. Since many traffic crashes involve human error, progress toward reducing the frequency and severity of traffic crashes can be better accomplished if SHSOs and MPOs initiate steps to work together on regional and local safety needs.

Many states have adopted some iteration of a zero fatality goal, but no one entity, agency, or individual can move the needle on this issue on its own. MPOs are responsible for regional transportation planning and programming. This includes taking a wider view of the transportation network to understand, in part, where the system is unsafe and how transportation projects can make a difference. While MPOs primarily focus on planning and programming capital infrastructure projects, behavioral safety issues are still persistent on the regional system. SHSOs are similar in that they also program safety projects, but they are more focused on improving human behavior, through awareness and enforcement, as a means to achieving a safer transportation system. Both agencies are working toward the same safety goals, therefore, enhanced collaboration and awareness of each other could achieve better progress toward achieving those goals. MPO/SHSO collaborations will assist SHSO programs by broadening their reach to new audiences and local partners.

Achieving zero fatalities is not impossible—transportation and safety stakeholders are constantly analyzing crash data to identify infrastructure and behavioral solutions and prioritizing those solutions to be able to meet safety performance (Figure 1). However, no one entity, agency, individual, program, project or policy can move the needle on this issue on its own. The core element is thinking more widely about key partnerships to address the safety epidemic, the ways in which these partnerships can be beneficial, and how partners can be positioned to deliver solutions.





Source: Cambridge Systematics, Inc.

Figure 1 Elements to Achieve Zero Fatalities.

Enhancing collaboration, communication, and general relationship building between MPOs and SHSOs makes a lot of sense. Increased focus on collaboration between these two groups can help foster greater consistency of addressing safety and safety countermeasures to the local community and the state as a whole. MPOs are regional, urban- focused transportation planning agencies, governed by elected officials, with staff expertise in engagement, policy, planning, and analysis. They are required to consider transportation safety improvements in urban regions, but also are organized to engage elected officials who are often needed to support strong safety campaigns and programs. While MPOs have historically collaborated more closely with DOTs to identify infrastructure projects, the introduction of safety performance measure requirements is now encouraging MPOs to think holistically about the multidisciplinary nature of safety needs. On the other side of this, SHSOs are experts in behavioral safety and administer grant funds to support these efforts. Educating, engaging, and assisting MPOs in this area can lead to successful behavioral safety programs and projects that encompass urban regions and leverage the comprehensive network of stakeholders already engaged in the metropolitan planning process.

Nationally, a number of movements, including Vision Zero, Toward Zero Deaths, and Road to Zero have laid out policies, programs, and strategies and encouraged collaboration efforts to end transportation related fatalities and serious injuries. Most SHSOs and MPOs have adopted some iteration of the zero goal. Both agencies also are required by Federal transportation law to track and evaluate the extent to which they are progressing toward fatality and serious injury reductions. And for years, MPOs have needed to integrate safety into their transportation plans.

MPOs are responsible for planning and programming transportation improvement projects in urban areas (over 50,000 population). Every State has at least one MPO, but in most States, there are multiple that blanket the metropolitan areas. Federal legislation outlines a number of MPO requirements, but at their core, they are set up to identify, analyze, and understand all the current and future transportation needs in their planning area; coordinate with the public and stakeholders to address those needs with programs and projects; and obtain buy-in from their Policy Boards (made up of local elected officials) to move forward with transportation investment decisions.

Considering that fatalities are increasing in urban areas and MPOs have the skills to analyze data, convene diverse stakeholders, communicate with elected officials, and identify the best transportation projects, they could engage more in safety planning and behavioral safety needs in particular, provided a clear path to qualifying Federal funds is available. MPOs are required to coordinate closely with DOTs regarding safety targets and goals. However, Federal funds available to MPOs through the DOTs for road safety improvements in urban areas are strictly earmarked for infrastructure improvements. Since over 90 percent of crashes are attributed to driver error and related behavioral issues (Treat et al. 1979), the current strategy appears to rely entirely on SHSOs and local grantees to deliver solutions for behavioral safety issues, often developed with little coordination with MPOs that are responsible for transportation infrastructure planning for the most populous urban regions.

MPOs are required to consider safety during planning, but the level to which safety is incorporated varies significantly. The initial research challenge was to understand the barriers and opportunities to enabling MPOs to address safety. Through the NCHRP Report 811 research, a Transportation Safety Planning (TSP) Framework was developed which outlined seven principles which provided basic to more advanced ideas for thinking about safety in the planning process. Workshops were subsequently conducted in 16 States (with DOTs, MPOs, and other transportation and safety stakeholders. While the workshops were positive, they also shed light on the basic challenges MPOs face in comprehensively addressing transportation safety.

While a number of general challenges exists, one of the underlying themes is the lack of MPO engagement and/or coordination on behavioral safety issues at the regional level. Not to say there are not ongoing regional and local behavioral activities, but the MPOs, who have a significant role in addressing transportation priorities and are structured to view the entire system, are not as involved in 4 E (engineering, education, enforcement, and emergency services) safety planning as needed. At the crux of this challenge is: 1) lack of knowledge/understanding between MPOs and SHSOs; 2) lack of understanding of available NHTSA funding and/or interest in funding MPO behavioral safety efforts; and 3) separate institutional structures and planning processes of MPOs and SHSOs

## Scope of the Study

The objective of this research was to develop a guide for MPOs and SHSOs to improve coordination on local and regional behavioral safety efforts to reduce the frequency and severity of traffic crashes. The intent of the guide is to address a broad range of topics related to the objective:

- Describe how partnerships between MPOs and SHSOs are an opportunity to make further progress toward zero.
- Demonstrate how MPOs and SHSOs can maximize these partnerships, through data sharing, coordination meetings, existing and new safety campaigns, funding, and other strategies.
- Identify challenges associated with furthering these partnerships and ideas, guidelines and strategies to overcome any limitations.
- Identify basic to more advanced behavioral planning efforts, programs, projects, countermeasures, and campaigns to meet the diverse array of MPO capabilities.
- Develop all of this information into a user-friendly guide and toolkit with real-world applicability through case studies.
- Describing current SHSO and MPO practices for implementing behavioral traffic safety approaches;

- Identifying challenges for collaboration to meet the project objective;
- Developing case studies that include examples of collaboration and innovation, both national and international;
- Identifying and developing strategies for effective collaboration;
- Identifying and describing the benefits of collaboration between MPOs and SHSOs; and
- Developing a toolkit of innovative strategies to facilitate communication between MPOs of diverse sizes and SHSOs.

## CHAPTER 2

# Research Approach

Development of *BTSCR P Research Report 7: Improving MPO and SHSO Coordination on Behavioral Traffic Safety: Guide and Toolkit* (BTS-06) was informed by information collected, reviewed, analyzed, and synthesized during a detailed research process which included a literature review, outreach and data collection, and guide development. More details on each step of these processes are provided below. The research scope consists of the following tasks:

- Task 1 – Project Management
- Task 2 – Literature Review
- Task 3 – Data Collection
- Task 4 – Data Assimilation and Guide Outline
- Task 5 – Interim Report and Meeting
- Task 6 – Case Study Development
- Task 7 – Guide Development and Panel Meeting
- Task 8 – Toolkit Development
- Task 9 – Final Report and Webinar

### *Literature Review*

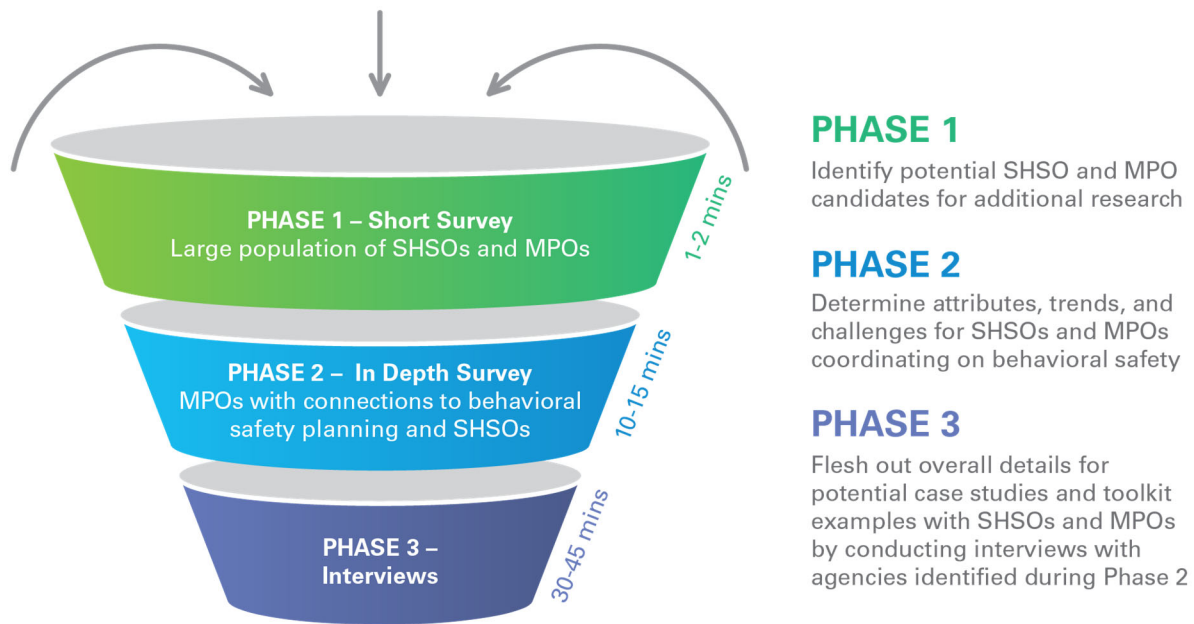
The project team conducted a literature review to summarize and organize publicly available data and scholarly works documenting the existing conditions, inciting factors, and lessons learned associated with MPO and SHSO coordination. Information on the level of coordination, approach, outcomes, challenges, and opportunities was compiled and used to identify MPOs and SHSOs to include in the data collection process and general information for this guide.

The literature to support the research project was in some ways vast and in other ways, nearly nonexistent. A large body of literature exists on collaboration in general, the Federal safety planning requirements, which suggest opportunities for MPO and SHSO collaboration, and a limited number of SHSO and MPO collaborations in practice; however, little is documented regarding the opportunities and benefits of SHSO and MPO partnerships.

Based on the body of literature, the literature review discussed the merits of collaboration in general, Federal requirements that incentivize collaboration around safety planning, and basic information on collaborative efforts in practice based on research team knowledge and a search of SHSO Highway Safety Plans (HSPs) and MPO Metropolitan Transportation Plans (MTPs). A summary of the literature review is included in Appendix A.

### *Data Collection and Assimilation*

The study employed a three-phased outreach and data collection process to understand the state of the practice related to MPO and SHSO coordination (Figure 2).



Source: Cambridge Systematics

Figure 2 Three Phase Data Collection Process

Surveys collected in Phases 1 and 2 allowed the project team to cast a wide net to identify SHSO and MPO candidates for additional research and specific coordination efforts on behavioral safety. Based on the survey results and input from the project panel, SHSO and MPO staff were interviewed in Phase 3 to investigate the partnerships, programs, and planning activities used to collaborate on behavioral safety challenges and any known outcomes. Eighteen organizations were interviewed providing a wealth of information about existing efforts between SHSOs and MPOs and common challenges with coordination between the two groups. This phase of the data collection process also helped to identify the range and variation in the types and level of coordination across states and MPOs.

#### *Guide and Toolkit Development*

A Guide and Toolkit was developed using findings from the study to provide recommendations for SHSOs and MPOs to establish and grow collaborative relationships. It details the basics of effective collaboration, provides recommendations for how to collaborate, and presents potential outcomes of collaboration, where behavioral safety is concerned.

## CHAPTER 3

# Findings and Applications

### Survey Results

Both the Phase 1 and Phase 2 surveys were designed to engage a diverse set of agencies to identify useful material for inclusion in the guide and toolkit. The survey questions and results are included in Appendix B.

The Phase 1 survey was distributed to 50 SHSOs and 405 MPOs with the goal of establishing a baseline of where SHSO and MPO relationships exist and identifying if MPOs or SHSOs are currently coordinating to implement behavioral countermeasures/campaigns. The survey yielded a total of 18 responses (including eight MPO respondents and ten SHSO respondents) which provided a basic understanding of existing coordination. Out of the eight MPO respondents, seven MPOs identified implementing behavioral campaigns in coordination with SHSOs whereas all SHSOs reported collaborating with MPOs, but did not identify if this coordination was related to behavioral campaigns, proving the need for further investigation of MPO and SHSO relationships.

The research team used these basic findings to distribute a more in-depth Phase 2 survey to practitioners found in Phase 1 and additional agencies identified through the literature review. The purpose of the Phase 2 survey was to gain a better understanding of the state of the practice and identify opportunities and challenges to achieve better coordination used to inform the range of strategies/material to be included in the guide and toolkit. The survey included 21 questions that were grouped together in four main sections: program characteristics (the overall nature, focus areas, and elements of the regional behavioral safety effort), collaboration characteristics (identification of how the MPO and SHSO collaborate, communicate, and share resources), how efforts are supported (identification of agency activities, challenges, and opportunities when implementing collaborative behavioral safety planning and programming efforts) and lessons learned.

Although the survey was delivered to 12 MPOs and 10 SHSOs, some agencies did not complete the survey and some MPOs noted that they are not currently implementing programs to address behavioral needs or do not have regional safety efforts that involve collaboration with the SHSOs, resulting in a total of 14 responses (with eight MPO respondents and six SHSO respondents). Key findings for each survey section are provided below.

#### *Program Characteristics*

In regard to program establishment and history of collaboration, five of the regional behavioral safety efforts/programs are fairly new, being active for less than three years and four have been established for 10 years or more. A majority of SHSO participants are housed within the state DOT, with few operating independently or under other state agencies such as the Department of Motor Vehicles or the Office of Attorney General.

Across all participants, pedestrian and bicycle safety were the most common focus areas for regional behavioral safety efforts. Although a variety of elements played a role in identifying and implementing coordination efforts, data-driven safety issues and staff/agency interest were the most common, noting that collaboration started across various agencies including state DOTs, local/municipal governments,

enforcement agencies, and others. Behavioral efforts focus mostly on education and outreach with less focus on other areas such as enforcement and emergency response. Funding and staffing vary by state and year, with seven respondents indicating a funding range from \$50,000 to \$1 million typically provided by a NHTSA grant.

#### *Collaboration Characteristics:*

Often times, an action by the MPO regarding a behavioral safety effort such as initiating a regional safety plan is the impetus for the MPO and SHSO collaboration. Communication between MPOs and SHSOs typically occurs monthly but at least quarterly for all respondents via regularly scheduled meetings and informal communication. In general, all respondents identified that MPO and SHSO partnerships are mutually beneficial, sharing resources, funding, staffing, program ownership and materials, and data, but could be enhanced by increasing mutual understanding of existing regional safety issues.

#### *How Efforts are Supported:*

As MPOs operate as the main regional transportation convener, they are often the champion for regional behavioral programs and remain responsible for assessing program performance. Although respondents did not identify major collaboration challenges, the fluctuation of funding from year to year can hinder program advancements. In terms of successes, respondents indicated that successful coordination usually comes as a result of regional behavioral safety planning efforts with six MPOs identifying as having a regional safety plan, and incentives to reduce severe crashes.

#### *Lessons Learned:*

MPOs and SHSOs had the opportunity to share lessons learned from implementing and collaborating on a regional behavior safety program including: continuing open collaboration between MPOs and state government; communicating on a monthly basis or more frequent; engaging local agencies to continue to understand the role of MPOs and SHSOs to address traffic safety; establishing agency leadership support; and continuing to share resources and develop partnerships.

## **Interview Results**

In addition to the surveys, interviews were conducted with various SHSOs and MPOs to gather additional insight related to successful practices and limitations to coordination. Interviewees were asked to describe the nature of their partnerships, programs, planning, and resource sharing. Interview questions and a list of interview participants are included in Appendix C. A summary of interview themes is provided below.

## **Partnerships**

### *Coordination*

All participants highlighted the need to enhance coordination, reframe safety processes to reduce the frequency and severity of traffic crashes based on data-driven analysis, and improve safety culture based on current trends. In addition, both MPOs and SHSOs noted the importance of enhancing collaboration during the process of updating statewide plans such as the Strategic Highway Safety Plan (SHSP), establishing performance measures, aligning safety practices with statewide objectives and goals, and working in coordination to push consistent safety messages throughout the State. MPOs primarily focus on identifying hot spot locations, expanding social outreach campaigns, and implementing projects that aim to reduce serious injury and fatal crashes that involve pedestrians/bicycles/vehicles, with less focus in areas

such enforcing motorcycle safety, speeding, and impaired driving, which fall under the responsibility of SHSOs. Increased coordination and partnerships were sparked from both top-down and bottom-up approaches to address behavioral safety. Examples of how these partnerships started include:

- In 2005, the state of New York decided to integrate safety into their transportation planning workshop. This decision jump started the need to establish a safety working group to increase collaboration with the Governor’s Safety Transportation Committee (which operates as the SHSO) and all MPOs. The existing partnership now acts as a channel for two-way communication that has led to a more holistic approach to address safety in the state.
- After seeing an increase in bicycle and pedestrian crashes, the Indian Nations Council of Governments (INCOG) reached out to their SHSO for additional funding and resources. This sparked collaboration with the SHSO, INCOG, and the Oklahoma Department of Transportation (ODOT) to enhance coordination while updating the SHSP.
- The Hillsborough, Florida MPO leads the country in traffic deaths. This resulted in growing attention for safety planning support from elected officials and the public and has encouraged the MPO board to take a progressive and assertive approach to reducing serious injuries and fatalities in the region.
- The Secretary of the Maryland Motor Vehicle Administration (MVA) initiated coordination by sending a letter to all local jurisdictions asking them to develop local road safety plans (LRSPs). To support this effort, the MVA (or the SHSO) created a staff position at the Baltimore Metropolitan Council (BMC) to assist counties with LRSP development and act as a resource for all coordination efforts.

**Communication**

Communication happens both formally (through quarterly and monthly progress meetings) and informally (on an ad-hoc basis to address any needs and request support needed daily), yet longevity and support from leadership plays a key role in overcoming communication barriers. In general, SHSOs meet in-person with MPOs one or two times per year. As noted by the state of New Jersey, communication mostly happens on an ad-hoc basis but could be greatly improved if the SHSO met with the MPOs more frequently throughout the year. MPOs take a planning approach to address behavioral traffic safety and SHSOs take a law enforcement/community approach to addressing safety. These two approaches often do not align, but they are successful at bringing together a wide cross section of stakeholders at once. Communication can be enhanced by dedicating a specific staff member such as the state coordinator to serve as the main point of contact for all shared resources. For example, the Rapids Area Planning Commission has open communication through the Louisiana SHSO state coordinator who is available on a regular basis to assist all regional safety coalitions.

**Involvement**

Involvement in SHSO and MPO partnership building depends on a range of factors such as where the SHSO is located within the state, the number of dedicated staff members, and engagement with outside stakeholders such as other agencies, the private sector, and emergency response service providers. Interviewees were asked to identify pros and cons of where their SHSO is housed within the state (Table 1):

Table 1 Pros and Cons of SHSO Housing

<b>Pros</b>	<b>Cons</b>
<ul style="list-style-type: none"> <li>• Housing the SHSO in the Department of Motor Vehicles (DMV) ensures that licensing and vehicle expertise is available at the agency if needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Housing the SHSO in the Department of Law and Public Safety can place limitations of the flow of information sharing with the DOT.</li> </ul>



- 
- Housing the SHSO in the DOT can be a conduit for improved communication and coordination between the SHSO and DOT staff.
  - Housing the SHSO in the DOT can hinder communications with MPOs because MPO staff is more likely to focus on building relationships at district or regional levels where SHSO staff do not typically participate.
- 

The majority of MPOs and SHSOs identified the need to increase coordination with emergency service providers such as law enforcement, emergency response staff, emergency room trauma staff, fire, and incident management agencies to carry out local safety strategies. In Washington State the SHSO works in conjunction with the Emergency Service Departments on data projects to link crash and hospital data together to identify locations where the time to transport a victim to a trauma/hospital facility falls outside of one hour. By enhancing collaboration with emergency service providers and including them in safety conversations, MPOs and SHSOs have enhanced data collection, reporting and evaluation.

In addition to local agencies in their region, MPOs can leverage NHTSA and non-profit partners to assist with safety education, campaigns and resources. For example, the Indian Nations Council of Governments (INCOG) partners with two non-profits. Tulsa Bikeshare provides funding for safety supplies and assists with teaching safety trainings and Humble Sons focuses on bike safety geared to ages 5-18 years, provides safety equipment such as blinking lights, and created a safety campaign website to continue to spread awareness if funding is cut from the MPO.

### *Staffing*

Many MPOs have staff members who take on the role of enhancing safety collaboration in addition to other everyday responsibilities, leaving them with limited time and resources. However, Maryland's SHSO uses state resources to fund a dedicated staff member at the Baltimore Metropolitan Council (BMC) to assist with LRSP development, outreach and technical assistance, which has been successful in increasing collaboration efforts. The Secretary of the Maryland Motor Vehicle Administration (MVA) where the SHSO is housed initiated coordination by sending a letter to all local jurisdictions asking them to develop local road safety plans (LRSPs) in support of the state's SHSP.

It is important to note that the majority of SHSOs interviewed did not provide funds to MPOs for staffing purposes, with the exception of funds for law enforcement overtime. Several interviewees mentioned the difficulties around using SHSO grant funds for such purposes due to requirements to provide grant funding on an annual basis. Instead, many SHSOs provide grant funds for safety campaign materials such as brochures and pamphlets or marketing and media services.

### **Planning**

MPOs and SHSOs noted the importance of enhancing collaboration during the process of updating statewide plans such as the SHSP and the Highway Safety Plan (HSP), establishing performance measures, and aligning safety practices with statewide objectives and goals. MPOs have varying approaches to integrating safety programs within regional and state planning processes:

- In 2021, the Pinellas, FL MPO published the [Safe Streets Pinellas Action Plan](#) to establish implementable and measurable steps to help Pinellas County reach a goal of zero serious injuries and fatalities by 2045 (Safe Streets Pinellas, 2023). The action plan includes an engineering toolkit and 25 supporting actions with identified partners, timeframes, and performance measures.
- The Rapides Area Planning Commission relies on the State of Louisiana to develop a regional safety plan and then it is up to the MPO to adopt and modify its plan at the local level.
- The Capital District Transportation Committee (NY) published their safety plan in 2019. The MPO began by making the actions highlighted in their SHSP more relevant to their region by getting local buy

in. The Committee produced a range of actions, involved a variety of stakeholders, conducted a series of safety events, and disseminated materials. This action plan was used as a major component in the LRTP.

- In 2017, the Hillsborough, Florida MPO published the Vision Zero Action Plan with the help of a Vision Zero Coalition. The plan used data analysis to identify action tracks, prioritize action steps, measure progress, and monitor the effectiveness of the action plan strategies to reach vision zero.

### **Resource Sharing, Funding and Data**

In regard to sharing resources, the MPOs interviewed generally know who to contact to request data from SHSOs and where to access online data platforms to obtain regional fact sheets and dashboards produced by the state. In terms of funding, MPOs heavily rely on DOTs to provide adequate funding to implement safety improvements or they seek SHSO funding from grants for safety programs. Funding examples include:

- The Missouri Department of Transportation (MODOT) provides less than \$200,000 year to MPOs for projects and the Kentucky Department of Transportation (KDOT) provides a \$14,000-\$16,000 block grant to fund engineering countermeasures.
- Both the New York GTSC and the Rhode Island Department of Transportation (RIDOT) do not provide any grant funding to MPOs.
- Hillsborough MPO receives limited funding from the SHSO used for indoor advertisements.

All participants identified different approaches to sharing materials. Some examples include:

- The Baltimore Metropolitan Council has a contract with consultants to develop social media toolkits and operate websites that are coordinated with the State.
- The Regional Transportation Commission of Washoe County has participated in joint grants to promote consistent messaging.
- The Mid-America Regional Council shared collateral materials such as radio spots, brochures and billboard space, and used grants to purchase impaired driving goggles and simulators.

All participants noted that there are some challenges associated with data sharing and reporting, but most MPOs and SHSOs have excellent coordination on data sharing processes. Data sharing examples include:

- The Baltimore Metropolitan Council (BMC) is looking to enhance their data collection processes by creating a crash data dashboard and hiring a consultant through NHTSA to evaluate data practices. The BMC looks to the SHSO to provide raw data, GIS data, and access to standard reports and work studies.
- The Rapides Area Planning Commission shares data among all coordinators through an online platform and integrate NHTSA data, FARS data and the CARTS crash database operated by Louisiana State University.
- According to the New York Governor's Traffic Safety Committee, the SHSO has a grant with the Department of Health to provide data analysis integration of crash data with emergency room data. This information is provided by county level profiles on the SHSO website and has been a successful best practice for legislative briefings.

### **Performance Measures**

The majority of participants noted that the SHSO has limited involvement in the MPO process of setting performance measure targets. In general, MPOs work in direct coordination with state DOTs to either adopt

statewide goals and objectives or establish their own targets. Both MPOs and SHSOs noted that the MAP-21 and FAST Act safety performance measures will require more funding for safety, allow for further data analysis and increase collaboration. MPOs noted the following as challenges to meeting performance measure targets:

- Meeting performance measure targets largely depends on various outside factors such as vehicle design, increases or decreases in vehicle miles traveled (VMT), and other transportation impacts caused by the recent COVID-19 pandemic.
- It becomes challenging to set regional targets when the State has adopted Vision Zero target.
- MPOs focus their efforts on changing driver behavior and engineering countermeasures with less involvement in enforcement activities.

**Outcomes**

Table 2 highlights benefits and challenges related to the outcomes of MPO/SHSO coordination as identified by interviewees.

Table 2 Benefits and Challenges of Coordination

<b>Benefits</b>	<b>Challenges</b>
<ul style="list-style-type: none"> <li>▪ Increased coordination provides both the MPO and SHSO with a better understanding of regional needs, priorities, and accomplishments.</li> <li>▪ Expanded data sharing can be used to track fatalities and serious injuries and establish focus areas.</li> <li>▪ Coordination efforts can spark common traffic safety interest from other MPOs.</li> <li>▪ Coordinated marketing campaigns and increased online presence can enhance public awareness while also encouraging MPO staff to work more closely with SHSOs and other safety partners.</li> <li>▪ Enhanced and more coordinated information dissemination processes benefit all safety partners.</li> <li>▪ Both the MPOs and SHSOs can share resources, leverage existing contacts, and assist with target performance setting.</li> <li>▪ Improves the uniformity of messaging given to the public</li> </ul>	<ul style="list-style-type: none"> <li>▪ Timeliness of obtaining data, building data tools and implementing interlocal or multi-state agreements.</li> <li>▪ Sustaining and retaining involvement in regional safety efforts, especially during and after COVID-19.</li> <li>▪ Sustaining and retaining involvement in obtaining accurate and timely data from law enforcement.</li> <li>▪ Lack of implementation push from DOTs to fund and assist with implementation efforts at the local level.</li> <li>▪ MPOs have limited staff with additional responsibilities outside of building safety partnerships with SHSO.</li> <li>▪ Revisiting issues and processes due to staff turnover.</li> </ul>

Interviewees were asked to provide any advice to give other MPOs or SHSOs to consider when establishing and enhancing coordination efforts and identify any notable resources as helpful guides.

**Advice for MPOs**

- Expand network connections to include various safety perspectives such as local law enforcement agencies, Departments of Health and the private sector.

- Keep lines of communication open and be creative with outreach to attract and sustain interest from a diverse group of people. For example, it was suggested to search safety boards or committees at the city or county level (e.g., Community Traffic Safety Teams) to identify future partnerships. Expanding collaboration partners can encourage resource sharing with partners that have common goals and objectives without exhausting available resources.
- Leverage State DOT and/or SHSO expertise to help with defining the extent of the safety challenges to help make the case with elected officials that additional investments are needed.
- Begin by starting small and initiating conversations with various agencies to get a better understanding of safety roles and concerns. Use common ground to organize avenues to effectively disseminate information and pick challenge/focus areas with the most data or evidence to receive the most support from DOTs.

### **Advice for SHSOs**

- Establish the best ways to spend money to address safety issues with the greatest impact and encourage the state to allow program funding for regional safety projects.
- Work in collaboration to build a framework to track regional safety program progress and implement similar programs in other areas or regions that have common safety issues.
- Determine if the process would be more successful if it took a more formal or informal approach (suggested by SHSO). Develop partnerships to facilitate discussions related to data, equity, etc.
- Start by meeting with one MPO about safety challenges – have someone from the SHSO discuss with the DOT/MPO coordinator first to understand the context/existing relationships.

### **Key Elements of MPO/SHSO Collaboration**

Each phase of the data collection built upon the previous phase. The findings from the literature review directed the survey questions and the survey responses pointed to interview participants. By reviewing the results from the data collection tasks in tandem, we distinguished some key elements that enable and enhance collaboration between MPOs and SHSOs including leadership and organizational influences for effective partnerships, coordination on planning efforts, sharing resources, and regular and sustained lines of communication. These are discussed below.

### **Effective Partnerships**

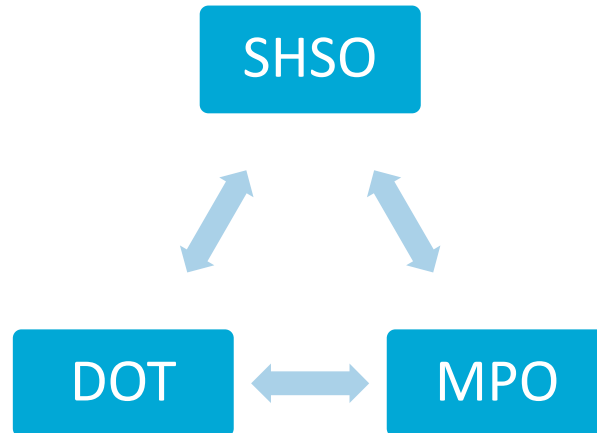
SHSOs and MPOs have effectively partnered on numerous efforts including, collaborating on public awareness, information, and education campaigns; sharing data and analysis resources; communicating with elected officials; and training and assistance for grant funding. The agencies' contexts and circumstances will influence the shape of the partnership. The organizations' leadership and structures, governing policies, and safety culture may direct whether there is collaboration or the extent of the collaboration. Additionally, leadership (internal or external) can mandate coordination efforts that can develop into collaboration.

Support from leadership can help establish collaboration and improve its longevity. Leadership has the capability to issue directives to establish coordination efforts and create practices that entrench relationships between SHSOs and MPOs. Internal champions may also be the stimulus for collaboration. These individuals may spearhead efforts or forge interagency bonds. For longevity, it is necessary to transition from dependence on individual staff to institutionalizing collaboration through formalizing the work within staff position, setting interagency standing meetings, or otherwise integrating collaboration into practices.

Understanding the structure, roles, and needs of each organization will improve coordination and is foundational to collaboration. Knowing the planning processes, how programs are funded, or who the agency works with can identify areas for collaboration. For instance, SHSOs have relationships with and funding to support emergency services. MPOs do not focus on emergency response or enforcement activities and may not have these relationships. They may, however, have relationships with advocates and coordination between MPOs and SHSO can convene these groups. Determining the roles and relationships each agency has in transportation safety can point to areas of synergy.

In some cases, an instigating activity or dilemma brought the SHSO and MPOs together. High levels of serious and fatal crashes spurred some of our interviewees towards joint efforts to improve safety through SHSO/MPO collaboration. Some successful partnerships were born from a top-down directive or initiative. Federal mandates such as safety performance measures and target setting initiated some of the relationships we reviewed through the interviews. Continued performance measures and target setting will provide an opportunity for more MPOs and SHSOs to coordinate. Similarly, the federal push towards a Safe System Approach and requirements from the Infrastructure Investment and Jobs Act are a chance for agencies to communicate, coordinate, and align. Although the directive or initiative may initially facilitate coordination, the SHSO and MPO will need to develop relationships and practices that establish prolonged collaboration past the conclusion of the requirements.

The state DOT is an additional partner that can influence collaboration. MPOs regularly work with state DOTs on safety (e.g., SHSP, target setting) as do SHSOs; however, the level of coordination for efforts across the organizations may vary by DOT. The interviews suggested that when SHSOs were housed within a DOT, the DOT facilitated or managed the coordination between SHSO and MPO, limiting direct communication between the MPO and SHSO staff and leadership. This may potentially dilute the role of behavioral strategies in MPO approaches to safety planning. Ideally, regardless of where the SHSO is housed, coordination between all three entities is regular and ongoing.



**Information flow: Projects, traffic records, data, programs**

**Figure 3 Collaboration Between DOT, MPO and SHSO**

### **Planning and Programming**

There are a number of opportunities for MPOs and SHSOs to foster collaborative relationships including long-range and annual planning and programming. Coordination between the HSIP and HSP is an opportunity to collaborate on planning efforts. DOTs produce the HSIP, however, MPOs are typically involved in the SHSP – the component of the HSIP that sets performance-based goals. For MPO's that have regional safety plans, there is also an opportunity to align with SHSOs as they are updated or developed.

Aligning goals, performance measures, and targets during the planning process can establish or advance a relationship between SHSOs and MPOs. The HSP is developed by SHSOs annually, but the SHSP may be as infrequent as every five years. Therefore, this effort cannot be the only point of coordination for a collaborative relationship.

Coordinating between SHSO focus areas and emphasis areas in SHSPs can also be a basis for collaboration. One such area is serious and fatal crashes involving people walking and biking and motor vehicles. Areas with more emphasis on enforcement or infrastructure design do not necessarily provide this opportunity.

Additionally, regional planning efforts, including regional safety plans, have instigated collaboration between MPOs and SHSOs. MPOs have identified behavioral safety efforts in the planning process that led to collaboration and have invited SHSOs to meetings and events that initiated relationships.

## **Shared Resources**

The interviews revealed a range of resource sharing between SHSOs and MPOs. Although it was less likely that funding or staff resources were shared between agencies, data sharing was consistent. The nature of data sharing was dependent on the contexts; however, safety data presents a useful point of coordination between MPOs and SHSOs. SHSOs access or manage crash data that is used for traffic safety planning and evaluation efforts. SHSOs may also have access to other data from emergency services. Safety data is typically shared from SHSOs to MPOs, who maintain data on the regional transportation infrastructure. MPOs may also collect additional safety datasets and combine safety data with infrastructure and other relevant data. In addition to data sharing, SHSOs and MPOs could collaborate to enhance traffic data collection.

Other shared resources can include outreach, broadcast, and publicity materials. Coordinating external communications can avoid duplications of materials and streamline messaging for consistent information to the public. Funding is not often a shared resource except in instances of grant funding to MPOs. Staff resources are also not often shared. Further, there are rarely staff dedicated to coordination between SHSOs and MPOs; however, such personnel can increase collaboration.

## **Communications**

Through regular and frequent communication, SHSOs and MPOs can build strong relationships for collaboration. Agencies we interviewed with high levels of collaboration also communicated regularly. A point person for communications at either agency can enhance coordination and this person will become well acquainted with shared resources and staff. This type of interaction can enhance collaboration. However, communication does not always need to be formal. Informal or ad hoc communication can help overcome silos or institutional barriers and help build relationships between individuals.

Communication can also help establish a mutual understanding of regional safety issues. The survey identified this as an area that could improve coordination between SHSOs and MPOs, and creating more effective communication channels forges the space to reach such an understanding.

Interagency coordination can also help bring a range of stakeholder to the table. Regional safety forums hosted or supported by MPOs engage cross-sector safety professionals, which can include SHSO staff. Both SHSOs and MPOs work with distinct groups of professional in transportation safety. Coordinating stakeholder engagement can bring together emergency services, policy makers, planners, funders, and other practitioners who can impact safety outcomes. Virtual communications during the COVID-19 pandemic have increased the ability of geographically dispersed agencies to convene and could also expand access for additional stakeholders.

## SHSO and MPO Purpose and Scope

SHSOs and MPOs are two distinct types of agencies with some overlapping similarities but many differences. These differences make the opportunities to collaborate even more beneficial given each group’s extensive reach into their communities and relationships with local government partners. The *BTSCR P Research Report 7: Improving MPO and SHSO Coordination on Behavioral Traffic Safety: Guide and Toolkit* developed as a component of this research project provides primers on SHSOs and MPOs to familiarize readers with each groups’ planning processes, planning products, and governance structure. Figure 4 provides a side-by-side comparison of SHSOs and MPOs to give readers a snapshot of the driving motivators for both groups and the funding and planning processes used to address planning and safety challenges.

SHSO	MPO
<b>Purpose</b>	
<ul style="list-style-type: none"> <li>▪ Responsible for identifying and addressing behavior-related traffic safety problems in their respective states, using available federal or state safety grants and other resources.</li> <li>▪ Use evidence-based, data-driven approaches, known as countermeasures, to improve safety.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Serve as a regional forum to coordinate transportation planning and project programming among the state and local agencies and individual jurisdictions.</li> <li>▪ Get stakeholders to the table to make decisions about allocating transportation funding.</li> </ul>
<b>Authority and Key Regulations</b>	
<ul style="list-style-type: none"> <li>▪ 23 USC Chapter 4, section 402</li> <li>▪ 23 CFR 1300.4</li> </ul>	<ul style="list-style-type: none"> <li>▪ USC Titles 23 and 49</li> <li>▪ 23 CFR 450 (USDOT Planning Rule)</li> </ul>
<b>Scope</b>	
<ul style="list-style-type: none"> <li>▪ Establish a state highway safety program that addresses 12 safety priority program areas.</li> <li>▪ Establish an annual Highway Safety Plan (HSP) that sets performance goals and objectives and outlines planned implementation and evaluation of program activities to improve safety.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Carry out a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process.</li> <li>▪ Provide for consideration and implementation of projects, strategies, and services that will address ten Planning Factors, including safety.</li> </ul>
<b>Geographical Coverage</b>	
<ul style="list-style-type: none"> <li>▪ Statewide, with regional coverage areas.</li> </ul>	<ul style="list-style-type: none"> <li>▪ A Census-designated urbanized area with a population of 50,000 or more is required to be served by an MPO.</li> <li>▪ MPO boundaries may cross multiple partial or multiple urbanized areas and may cross state boundaries.</li> </ul>
<b>Number of Organizations</b>	
<ul style="list-style-type: none"> <li>▪ One per state, plus the District of Columbia and U.S. territories.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Approximately 402.</li> <li>▪ Number of MPOs varies by state. May increase or decrease with each decennial Census.</li> </ul>

<b>Governance and Organization</b>	
<ul style="list-style-type: none"> <li>▪ Governor’s Highway Safety Representative (GR) or Highway Safety Office Director serves as administrator.</li> <li>▪ May have several staff specializing in grant management, communications, or safety.</li> <li>▪ May be housed in a state DOT, DMV, DOJ, or other agency.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Governed by a Policy Board and bylaws</li> <li>▪ Staffed by a director and planner(s)</li> <li>▪ May be hosted by a lead planning agency or independent.</li> <li>▪ May be housed in a local government agency, a regional council or commission, or independently.</li> </ul>
<b>Sources of Funding</b>	
<ul style="list-style-type: none"> <li>▪ Primary funding source is NHTSA for grant programs that support highway safety.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Primary funding source is FHWA PL funds dedicated for metropolitan planning purposes.</li> <li>▪ MPO may also receive FTA 5303 Metropolitan Transit Planning funds, and additional funding through a variety of federal, state, and local sources.</li> </ul>
<b>Required Plans and Processes</b>	
<ul style="list-style-type: none"> <li>▪ Highway Safety Plan – data-driven plans that document problem areas, countermeasures, and strategies, and planned activities and projects to meet performance targets.</li> <li>▪ Annual reports to assess HSP activities.</li> <li>▪ May be involved in developing the state’s HSIP and SHSP.</li> <li>▪ Annual work program.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Long-Range Transportation Plan (LRTP) – defines the region’s transportation vision, goals and objectives, and projects identified for funding over a 20+ year time period. Must be financially constrained. Updated every 4 or 5 years.</li> <li>▪ Transportation Improvement Program (TIP) – short-range, 4-year program of approved transportation projects drawn from the LRTP. Must be financially constrained.</li> <li>▪ Unified Planning Work Program (UPWP) – work program describing available planning funds and work activities to be conducted over the next 1 or 2 year period.</li> <li>▪ Public Participation Plan (PPP) – documents in writing how the MPO will carry out public engagement for its planning process and resulting plans and products.</li> </ul>

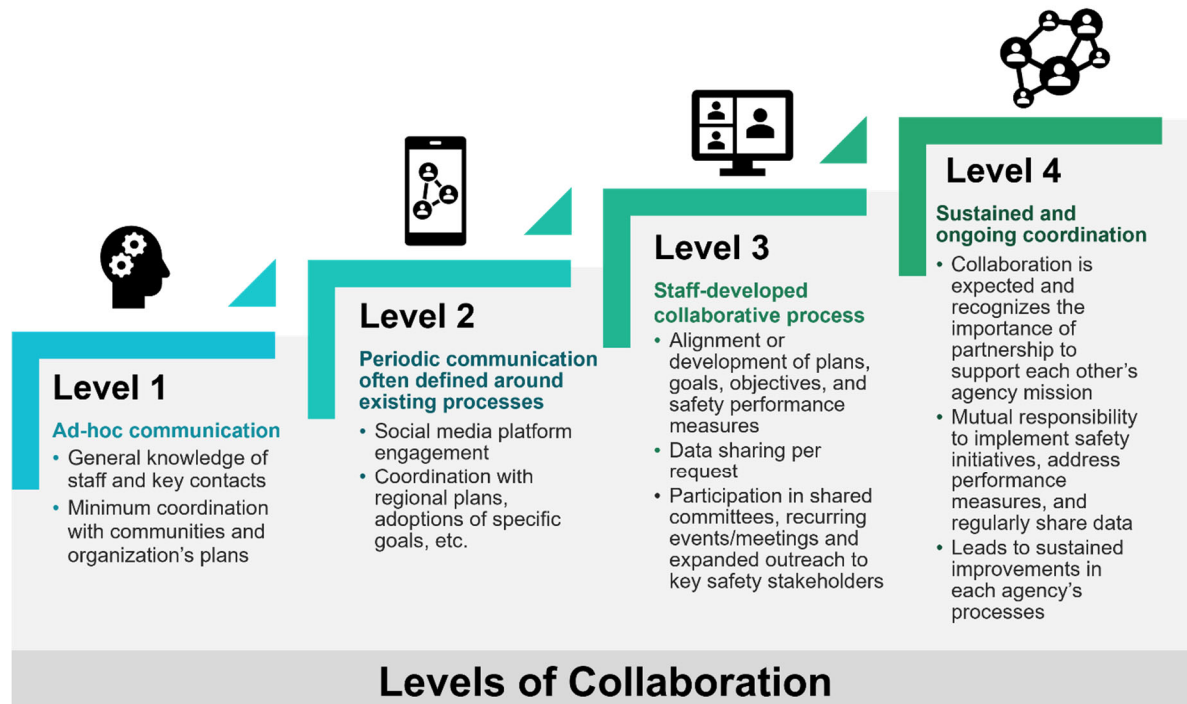
**Figure 4 Comparison of SHSO and MPO Purpose and Structure**

### **Levels of Collaboration**

Research conducted for this study identified instances where SHSOs and MPOs collaborate on at least an occasional basis. While most SHSOs and MPOs do not regularly collaborate, among those that do, there is a wide variation in the level of collaboration. The approaches to collaboration (and actions taken) can be classified into levels that range from ad hoc communication and general knowledge of agency contacts, to sustained and ongoing coordination with mutual responsibilities between the SHSO and MPO to implement behavioral safety programs.



Figure 5 shows a progression of collaboration within these levels. Organizations that are interested in beginning or enhancing collaboration may use this framework to identify ways to do so. It is important to note that collaboration between SHSOs and MPOs is not required by federal legislation.



**Figure 5 Levels of SHSO-MPO Collaboration**

As SHSOs and MPOs look for opportunities to enhance safety, each level of collaboration has a specific purpose and focus. To advance through Level 1 Collaboration, SHSOs and MPOs should gather information and general knowledge of key contacts. At Level 2, the organizations should work to build relationships critical to behavioral safety planning. To advance through Level 3, SHSOs and MPOs will need to work together to prioritize behavioral safety goals and concerns to understand where there is overlap. At level 4 the two agencies may consider developing an action plan to ensure sustained and ongoing coordination.

The *BTSCR Research Report 7: Improving MPO and SHSO Coordination on Behavioral Traffic Safety: Guide and Toolkit* categorizes each level of collaboration. Tools and examples are provided that present actions to consider at each level to help SHSOs and MPOs progress through these levels. A list of resources is also provided to illustrate potential opportunities and examples of documents to be used to advance coordination. Where applicable, the descriptions point to four case studies included in Section 3 of the Guide.

## CHAPTER 4

# Conclusions and Suggested Research

## Summary of Study Findings

Behavioral traffic safety could be enhanced by increased engagement between SHSOs and MPOs. MPOs have a strong understanding of the regional transportation network and potentially the means and skills to develop transportation safety plans, while SHSOs have the capability to obtain and analyze local crash data and offer training, technical assistance, and conference planning support on highway safety programs and countermeasures. MPOs can help SHSOs more effectively engage with at risk populations in their region and with local decisions makers and public health officials.

Progress toward reducing the frequency and severity of traffic crashes can be better accomplished if SHSOs and MPOs initiate steps to work together on regional and local safety needs. Both benefit from coordination and collaboration on infrastructure and behavioral programs, policies, and projects.

SHSOs and MPOs are two distinct types of agencies with some overlapping similarities but many differences. These differences make the opportunities to collaborate even more beneficial given each group's extensive reach into their communities and relationships with local government partners.

SHSOs and MPOs have distinct agency missions. SHSOs primarily focus on behavioral safety and administer grant funds to support national highway safety priority program areas statewide. MPOs focus on long-range transportation planning and short-range project programming, and must integrate 10 planning factors into the process, one of which is safety. Because MPOs have a key role in programming transportation projects, their primary role in safety planning involves infrastructure improvements.

There are very few existing resources focused on helping SHSOs and MPOs collaborate and partner. The surveys, interviews, and case studies conducted to develop the Guide for this project identified the following:

- Even though the primary focus areas of SHSOs and MPOs do not align, both organizations bring together a variety of stakeholders to share data and resources.
- SHSOs and MPOs benefit from collaboration in a number of ways – both organizations gain a better understanding of regional needs and priorities related to safety that helps them achieve their goals.
- SHSOs and MPOs need resources and examples of approaches to enhancing collaboration, sharing resources, removing communication barriers, coordinating on the SHSP and other safety plans, establishing data-driven performance metrics, aligning safety goals, and creating consistent safety messaging.
- SHSO and MPO collaboration can be visualized using a framework of levels.
  - **Level 1** – General knowledge of each other's staff and key contacts, communication on an as needed basis, little to no alignment of SHSO and MPO plans.
  - **Level 2** – Period collaboration often defined around existing processes.
  - **Level 3** – New opportunities are developed around existing roles and staff-developed collaborative processes, some data sharing, participation in each organization's conferences and events, and participation on existing committees and tasks forces.
  - **Level 4** – Sustained and ongoing interactions, collaboration is ingrained and second nature, organizations are recognized as important partners in each other's agency missions, shared

administration and implementation of safety initiatives, data regularly shared, and responsibility for addressing behavioral safety performance measures is shared.

The levels of collaboration provide practitioners a framework to identify opportunities to initiate coordination and collaboration between a SHSO and an MPO. These steps may not be applicable to all situations and may be implemented in a different sequence depending on the activities and needs of the SHSO and MPO.

## **Future Research Opportunities**

Since SHSO and MPO coordination on behavioral traffic safety is a relatively new concept and not fully implemented, future research opportunities are needed to determine how existing collaborations continue to evolve and what tools and resources SHSOs and MPOs need to enhance collaboration. The following sections discuss future research opportunities identified by the research project team, panel, and study participants.

## **Expansion of Behavioral Safety**

The majority of examples of coordination between SHSOs and MPOs focused on vulnerable road users such as bicyclists and pedestrians. In some cases, other behavioral challenges were addressed such as speeding or impairment. The range of behavioral safety challenges is much broader and could be opportunities for SHSOs and MPOs to leverage existing relationships and programs and develop new targeted programs. For example, grade crossing safety, truck safety, and transit safety are areas the project team did not find the two agencies collaborating on but could be opportunities to expand both groups' focus on behavioral safety.

## **Evaluation Tools**

During the project, the panel and participating agency representatives expressed a desire for more information on the expected/tangible impacts on the community as a result of the coordination. For example, it would be useful to better understand what impacts on the community are expected at each level of collaboration. This will require more case studies and opportunities to look at long term impacts of SHSO and MPO coordination. To measure community impacts, researchers will need to determine statistical methods to estimate numerical outcomes for SHSO and MPO coordination on behavioral safety. This will require more methods to measure impacts of behavioral safety strategies overall. Examples of potential methods include addressing outcomes in numbers of crashes and fatalities before and after coordination, determining positive impacts of coordination between SHSOs and MPOs and other outcomes resulting.

## **Enhanced Collaboration around Safe System Approach**

Given the number of research projects in progress related to implementing the Safe System approach at state, regional, and local levels, another future research opportunity could look at behavioral safety challenges and strategies for SHSO, MPOs, and DOTs to coordinate and collaborate on a family of plans to address the elements of the SSA and stakeholders and partners that can be leveraged across the plans developed by each agency. For example, how can the DOT, SHSO, and MPOs align behavioral safety strategies and programs to address the Strategic Highway Safety Plan (SHSP), HSP, the MPO's LRTP, and the MPOs regional safety plan? How can MPOs coordinate with their local agencies as they develop local road safety plans (LRSPs)?

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# APPENDIX A – LITERATURE REVIEW

## Literature Review

The objective of the Task 2 Literature Review was to summarize and organize publicly available data and scholarly works documenting existing conditions, leading factors, and lessons learned associated with MPO and SHSO coordination.

The literature to support the research project is in some ways vast and in other ways, nearly nonexistent. A large body of literature exists on collaboration in general, the Federal safety planning requirements, which suggest opportunities for MPO and SHSO collaboration, and a limited number of SHSO and MPO collaborations in practice; however, little is documented regarding the opportunities and benefits of SHSO and MPO partnerships.

Based on the body of literature, this review discusses the merits of collaboration in general, Federal requirements that incentivize collaboration around safety planning, and basic information on collaborative efforts in practice based on research team knowledge and a search of SHSO Highway Safety Plans (HSPs) and MPO Metropolitan Transportation Plans (MTPs).

### Defining Collaboration

Collaboration refers to teamwork, partnerships, cooperation, alliances, etc. However, such broad terms do not result in specific guidance about how to establish, sustain, manage, and evaluate effective collaborations between SHSOs and MPOs. The concept “...goes beyond communication, cooperation, and coordination. As its Latin root – com and laborare – indicate, it means ‘to work together’. It is a mutually beneficial relationship between two or more parties who work toward common goals by sharing responsibility, authority, and accountability for achieving results.” (Collaborative Leadership: How Citizens and Civic Leaders Can Make a Difference. David D. Chrislip, Carl E. Larson, Jossey-Bass Publishers, San Francisco, 1994, p. 5)

Collaborative arrangements mean something more than one agency providing funding to another. It goes beyond bringing people together to address mutual community concerns, in this case – safety for all road users. Working together, SHSOs and MPOs can “...rely on their collective credibility to provide a credible and influential link with legislative bodies and implementing agencies.....Collaborative efforts gain credibility and influence by ensuring inclusiveness, managing a constructive learning engagement, providing information necessary for making good decisions, building the coherence of the group, and helping negotiate agreements that lead to action.” (The Collaborative Leadership Fieldbook: A Guide for Citizens and Civic Leaders. David D. Chrislip, Jossey-Bass, A Wiley Company, San Francisco 2002, P. 42)

Federal legislation also defines collaborative relationships. The statewide and metropolitan planning regulation (Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning. Final Rule. Codified at 23 CFR, Part 450), defines coordination as:

“...the cooperative development of plans, programs, and schedules among agencies and entities with legal standing and adjustment of such plans, programs, and schedules to achieve general consistency, as appropriate”

MPOs are responsible for actively seeking participation in the planning process and coordinating their plans and schedules to the extent they can with other agencies, and performance targets must be aligned across the HSP, Strategic Highway Safety Plan (SHSP), Highway Safety Improvement Program (HSIP), and MTP. While this language does not always result in a robust relationship between MPOs and SHSOs, it does at least imply the two entities will work together in good faith to align and maximize planning outcomes.

For the final BTS-06 Guide Document, information on the basics of good collaboration, “how to” collaborate, and the possible outcomes will be described.

### *Collaboration-Related Documents*

Two documents, one from the Governor’s Highway Safety Association (GHSA) and another from the Federal Highway Administration (FHWA) come the closest to exploring collaboration between SHSOs and MPOs. The recently re-published ***A Guide for Effectively Partnering with State Highway Safety Offices***, April 2018, <https://www.ghsa.org/resources/partnering18> clearly makes the case for partnership with SHSOs. The document highlights:

- What SHSOs are and what they do;
- The opportunities, benefits, and limitations of working with an SHSO;
- The types of unfunded partnership activities that can be undertaken; and
- The types of grant-based partnerships that could work.

The Guide aids in each of these areas and provides multiple examples and tools to understand and enhance partnerships with an SHSO. While it does not address MPO partnerships specifically or how transportation planners should utilize the contents, many elements of the document could be beneficial to include in the final Guide Document for BTS-06. The following are particularly relevant:

- The services SHSOs can offer (which could be customized to MPOs), including resources and training, technical assistance, pre-proposal assistance, grant management support, conferences on highway safety issues, and crash data.
- Ideas on specific types of partnership opportunities, including collaborating on public awareness, information, and education campaigns; sharing data and analysis resources; and communicating with elected officials. In most cases SHSP employees are civil servants and have limited access to public officials. In fact, in many cases, the employees are not allowed to meet with elected officials, while MPO personnel meet frequently with elected officials to present analytic results, suggest planning components, etc.

- Information on the HSP planning process, but even more importantly “how to” information and timelines for applying for a behavioral safety grant. Many MPOs may not be aware of these opportunities.

FHWA’s **Building Links to Improve Safety: How Safety and Transportation Planning Practitioners Work Together**, November 2016, [https://safety.fhwa.dot.gov/tsp/fhwasa16116/saf\\_plan.pdf](https://safety.fhwa.dot.gov/tsp/fhwasa16116/saf_plan.pdf) is another document that does not specifically address MPO and SHSO partnerships, but it lends useful perspective to collaborative opportunities that could be included in the final BTS-06 Guide Document. It encourages multidisciplinary collaboration, focusing on how respective transportation and safety planning expertise can improve plans and lead to more effective implementation at the MPO/State level. The FHWA document highlights three modules:

- What safety planners do (including SHSO staff); the distinct types of safety plans (including the HSP); different safety-related legislation; and the basics of safety funding (National Highway Traffic Safety Administration [NHTSA] grants).
- What transportation planners do; the distinct types of transportation plans and processes; legislative requirements; and the basic funding sources.
- How transportation and safety planners could work together to integrate the different plans and processes.

The first two modules are useful because they document the basics of MPO and SHSO planning processes and responsibilities, and the third module on transportation and safety coordination offers ideas for how to enhance collaboration between the two disciplines. The following are particularly relevant:

- Attending multidisciplinary committee meetings (hosted by SHSO or by MPO) provides safety specialists and transportation planners the opportunity to meet and share information.
- Sharing crash data and analysis results can lead to a greater focus on the priority emphasis areas throughout the state, and transportation programs/projects can be better coordinated with safety efforts (such as enforcement and education).
- Collaboration on the SHSP can enhance plan alignment by achieving a mutual understanding of safety priorities and the opportunities to set and achieve safety performance targets.
- Developing a list of safety and transportation training objectives with priorities for both specializations.

Both of these documents are highlighted because they suggest specific ideas to enhance MPO and SHSO coordination, which is the ultimate purpose of this research. However, a side benefit of the documents is they provide information on how MPOs and SHSOs operate. Understanding the core functions/planning processes for each agency is a good step toward collaboration. For example, knowing that an MPO is required to include safety in their long-range transportation plan could encourage a SHSO to read the plan and identify opportunities to collaborate on regional safety priorities. The GHSA Guide mentioned above is one of the best resources to understand SHSO functions. And while the FHWA resource discussed above is useful, another FHWA document, **The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff**, January 2018,

[https://www.fhwa.dot.gov/planning/publications/briefing\\_book/](https://www.fhwa.dot.gov/planning/publications/briefing_book/) describes, in even more detail, how MPOs plan and make transportation programming decisions. These resources will be drawn from for the final Guide to make end-users aware of the roles and responsibilities for MPOs and SHSOs.

## Federal Requirements

Federal transportation legislation under Fixing America's Surface Transportation Act (FAST Act) and the IIJA defines various levels of collaboration for MPOs and to an extent, this extends to MPO and SHSO relationships. As mentioned in Section 2.1.1, the Code of Federal Regulations (CFR), Part 450 defines various levels of collaboration, which MPOs must adhere to during the planning process. While SHSOs are not identified as a required partner in transportation planning efforts, they could become a valued partner in the development of MTPs, Transportation Improvement Programs (TIP), and modal/topic plans, such as safety or bicycle/pedestrian plans.

In addition, MPOs are required to consider the goals, objectives, performance measures, and performance targets described in the HSIP, SHSP, and Public Transportation Agency Safety Plan in the transportation planning processes. While the HSP is not specifically mentioned, the Federal Highway Administration (FHWA) strongly encourages the state departments of transportation (DOT) to include the SHSOs in the development and implementation of SHSPs. This provides an excellent venue for MPOs and SHSOs to meet and discuss behavioral goals and strategies, which MPOs can use as a starting point to consider non-infrastructure safety needs in their plans.

Areas where MPOs and SHSOs are encouraged to collaborate more explicitly are during SHSP updates and setting annual safety performance targets. 23 U.S.C. §148—Highway Safety Improvement Program (HSIP) describes the requirements for the SHSP and Part 490 of title 23 of the CFR establishes the safety performance requirements. For every SHSP, the lead planning entity (usually the DOT) must consult with stakeholders including MPO and SHSO representatives. This requirement is implemented differently across states, so the level of coordination and communication across these entities could be anywhere from non-existent to robust. In an ideal scenario, both agencies would be active participants in SHSP meetings, where they can network; learn about each other's safety priorities; and identify collaborative opportunities.

Annual safety targets for number of fatalities, number of serious injuries, and fatality rate are required to be identical in the SHSPs, HSIPs, and HSPs. DOTs (not SHSOs) are then tasked with coordinating with MPOs on those targets, as well as the serious injury rate, and number of non-motorized fatalities and number of non-motorized serious injuries combined for their MTPs. However, since a number of SHSOs are housed within DOTs, the opportunity for MPOs and SHSO to collaborate on target setting, increases. Much of the FHWA literature on this topic, including the **Safety Performance Management Target Setting Communication Plan and Toolkit**, April 2018, <https://safety.fhwa.dot.gov/hsip/spm/fhwasa18006/docs/fhwasa18006.pdf>; the **Safety Target Setting and Coordination Memorandum**, May 2018, <https://safety.fhwa.dot.gov/hsip/spm/docs/memo052417.pdf>; and the **Safety Target Setting Coordination Final Report**, September 2016, <https://safety.fhwa.dot.gov/hsip/spm/docs/fhwasa16101.pdf> discusses how agencies can coordinate on target setting, but they primarily focus on MPO and DOT efforts.

As performance measures and targets continue to advance, it could enhance coordination efforts among all entities, especially MPOs and SHSOs. Previously, many MPOs addressed safety every four or five



years when developing a new MTP. With the new requirements to set annual safety targets, MPO staff and policy boards are addressing safety annually, and analyzing trends more closely. In addition, MPO MTPs must describe the region's progress in achieving safety targets, as well as compare current performance to a baseline and trends. They also must describe, in general terms, the anticipated effect of TIP investments to help achieve targets. This has created a realization that progress cannot be made through infrastructure investments alone and behavioral safety efforts can also be better utilized to reduce the number of traffic related fatalities and serious injuries. This presents an opportunity for the final BTS-06 Guide Document to discuss how DOTs, MPOs, and SHSOs can enhance collaboration on target setting.

## National Resources

The 2017 NHTSA guide titled **Countermeasures That Work: A Highway Safety Countermeasure Guide For State Highway Safety Offices**, Ninth Edition, April 2018, [https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478\\_v5\\_countermeasures-that-work-a-highway-safety-countermeasures-guide-9thedition-2017.pdf](https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478_v5_countermeasures-that-work-a-highway-safety-countermeasures-guide-9thedition-2017.pdf) assists organizations in selecting effective, evidence-based countermeasures for traffic safety problem areas. The guide summarizes strategy/countermeasure use, effectiveness, costs, and implementation time and provides references to the most important research summaries and individual studies. The entirety of the document identifies solutions to behavioral problem areas and contains strategies around communications and outreach, policies, enforcement, training, and safety education. While the document suggests the key audience is SHSOs, MPOs could use it to identify the most effective solutions to the behavioral safety needs in their regions.

**National Cooperative Highway Research Program (NCHRP) Report 500: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan**, May 2014, <http://www.trb.org/Main/Blurbs/152868.aspx> is another resource for transportation and safety agencies. Similar to the NHTSA guide, it identifies effective strategies to address a range of emphasis areas, including many behavioral issues that MPOs could address in their regions.

Both documents are useful tools not necessarily marketed to MPOs. They provide built in program and project solutions to address any behavioral issues MPOs may identify through crash data analysis.

## Existing Conditions

A handful of MPOs have considered and/or implemented behavioral safety efforts. In some of those instances, the MPOs coordinated with the state SHSOs on these projects and received NHTSA funding, but others leveraged unique resources and partnerships to administer the effort. In addition to individual program or project efforts, some MPOs have also developed regional safety plans, which often include a mix of infrastructure and behavioral challenges and solutions.

## Funding

Funding does not necessarily lead to good or meaningful collaboration. Often, it is the end result of ongoing coordination and collaboration. However, for the literature review, HSPs were reviewed to identify what MPOs received NHTSA grant funds and determine if any MPO/SHSO partnerships existed as a result. Of the states identified in 5.1.2, further literature was reviewed (MPO LRTPS and safety

plans) and only Louisiana and Oregon had literature pointing to some basic level of MPO/SHSO engagement. These states will be considered as Phase 2 survey candidates to learn more about their efforts and coordination work specifically. In addition, the final Guide will include resource information on funding (either through NHTSA grants, MPO planning funds, or other) for MPO/SHSO collaborative efforts.

### *Highway Safety Plan and NHTSA Funded MPO Efforts*

Based on a review of all 50 states Fiscal Year 2017 HSP's (<https://one.nhtsa.gov/links/StateDocs/pages/SafetyPlans.htm>), six states (District of Columbia, Louisiana, Maryland, Ohio, Oklahoma, and Oregon) provided support to MPO behavioral efforts.

- **D.C.:** \$200,000 grant for the Metropolitan Washington Council of Governments (MWCOC) (MPO for the D.C. region) to implement the Street Smart pedestrian safety education campaign.
- **Louisiana:** \$12,100 grant for the Baton Rouge Regional Safety Coalition (includes the MPO) "We've Got Your BAC" program which educates the public on what Blood Alcohol Content (BAC) means. The Louisiana SHSO will also fund regional coalitions (which include MPOs) whose safety plans identify and prioritize unbelted vehicle occupants, impaired drivers, or young drivers in their regional safety plans.
- **Maryland:** \$250,000 grant for the MWCOC (MPO for the D.C. region) to implement the Street Smart pedestrian safety education campaign.
- **Ohio:** No funding, but SHSO lends support to MPOs on pedestrian and bicycle safety education.
- **Oklahoma:** \$40,000 grant to the Indian Nation Council of Governments to promote bicycle and pedestrian safety in Tulsa, including two radio and online advertising campaigns.
- **Oregon:** \$415,000 to MPOs for Safe Routes to School efforts. \$60,054 grant to the education component of the Lane County Regional Safety Plan; \$150,000 to the education component of the City of Portland Regional Safety Plan; and \$95,000 to the education component of the Washington County Regional Safety Plan.

Although the review of the HSPs did not reveal many funds directed to MPOs, which would suggest some level of MPO/SHSO engagement, it does not mean coordinated regional behavioral efforts are not occurring. For example, the Arizona SHSO funds grants for enforcement and education activities that support strategies and actions identified in an MPO regional safety plan, but because the grants go directly to the local law enforcement agencies, the MPO/SHSO coordination is not documented.

### *Regional Safety Plans*

MPOs are not federally required to develop safety plans, but some MPOs have prioritized the issue. These planning efforts are used to bring together 4E stakeholders (educators, engineers, enforcement, and emergency response) and identify a range of safety issues and solutions, not limited to infrastructure concerns. For many of these plans, the MPOs will identify appropriate stakeholders, set up and facilitate the meetings, analyze the crash data, and ultimately pull together a final planning document. Many are

similar to the SHSP format and identify emphasis areas and strategies, actions, and sometimes specific programs and projects. In some of the planning documents, the MPOs will cite themselves as “owners” of behavioral priorities, but in most instances, they identify themselves as the stakeholder in charge of leading infrastructure efforts, while other regional stakeholders are assigned to the education and enforcement efforts. The SHSO is sometimes cited in these plans as a contributor or participant in the planning process, but more often than not, MPOs partner with DOTs or other partners on these efforts. The challenge with this is SHSOs are not aware, or made aware, of the behavioral safety priorities and miss opportunities to collaborate. However, the benefit of these plans is they do identify and acknowledge the spectrum of multidisciplinary challenges in a region. This information would be useful for SHSOs to review, understand mutual interests, and consider how to partner on implementation opportunities that would help lower fatalities and serious injuries. Successful examples of MPO/SHSO collaboration through regional planning efforts include:

- The Louisiana Department of Transportation and Development (DOTD) set up regional coalitions throughout the state, many led by MPOs. The state assisted each coalition in developing a safety plan, which identified the top three to five safety challenges in the region together with effective strategies and actions to address the safety priorities. The SHSO and DOTD, along with regional transportation and safety partners, were actively engaged in the planning efforts and agreed that any data-driven priority in those plans could be eligible for HSIP or NHTSA grant funding. Because of the SHSO participation, MPOs became more aware of them as a resource and have either applied for grants for programs in their plans or worked with local law enforcement and educators to apply for safety funding. One specific example is the Baton Rouge Regional Safety Coalition, which includes the MPO. Stakeholders identified impaired driving as an emphasis area in their regional plan. One of the strategies was to provide broader education on the topic. They applied for and received a \$12,100 grant for the “We’ve Got Your BAC” program, which educates the public on what BAC means.
- The Mid-America Regional Council (MARC), the MPO for the Kansas City, MO region is a member of the Destination Safe Coalition which is a partnership between federal, state and local agencies. The group developed the *Kansas City Regional Transportation Safety Blueprint, 2018*, [https://www.marc.org/Transportation/Programs/assets/DS\\_TogetherTowardZero.aspx](https://www.marc.org/Transportation/Programs/assets/DS_TogetherTowardZero.aspx) which identifies regional emphasis areas and solutions. Both the Kansas SHSO and Missouri DOT (SHSO is housed in DOT) are also actively engaged stakeholders. The Destination Safe Coalition does an annual call for projects to fund education and enforcement strategies outlined in the Blueprint. MARC does not appear to be one of the grantees but is one of the Program Managers for the application development and selection process. MARC also lists that they provide support for and promotion of public safety education and enforcement campaigns and develop legislative agenda with regional enforcement entities in their Transportation Improvement Program (TIP).
- The Houston-Galveston Area Council, the MPO for the Houston, TX region developed a *Regional Safety Plan*, August 2018, <http://www.h-gac.com/transportation-safety-program/documents/2018-Draft-Regional-Safety-Plan.pdf>, in coordination with numerous stakeholders, including the TxDOT (which also leads SHSO functions). The plan identifies the over-represented safety challenges (behavioral and infrastructure) in the region and discusses solutions. One unique approach is the MPO serves as the grant administrator for twelve DWI Task Forces (funded through a TxDOT Selective Traffic Enforcement Program). The MPO serves as fiscal agent for the grant, sets up Task Force planning meetings, processes participating agencies’ paperwork, reimburses

participating agencies, and submits the required documentation to TxDOT. The MPO leads or supports a number of other behavioral safety efforts as well.

- The Southeast Michigan Council of Governments (SEMCOG), the MPO for the Detroit, MI region leads the regions traffic safety campaign called Walk.Bike.Drive.Safe. It's an education program to ensure everyone (bikers, walkers, and drivers) can move around safely in the region and was developed as part of implementation efforts for the *Southeast Michigan Traffic Safety Plan*, December 2015, <https://semcog.org/Reports/SEMMichiganTrafficSafetyPlan/files/assets/basic-html/page-1.html#>. Materials to implement the educational program are available online and include short videos, social media images, a story template, brochure, tip cards, posters, and promotional items. SEMCOG also led a training for their local jurisdictions on the campaign materials and how they could take a proactive approach to educating road users about roadway safety. The SHSO was noted as a partner for the regional safety plan development, but not as a collaborator or funder for the Walk.Bike.Drive.Safe. campaign.

### *Independent MPO Behavioral Safety Efforts*

Based on the collective knowledge of the research team and a search of MPO transportation plans, some level of information is known about a handful of MPOs engaged in behavioral safety efforts, such as administering campaigns to coordinating 4E safety committees and sharing information about behavioral strategies, opportunities, and resources. However, in many of these examples, it is challenging to discern whether the SHSO is an active collaborator in the effort – where collaboration is documented, it is noted. Many of the states where these MPOs reside were also recommended to participate in the Phase 2 survey to be able to learn more about coordination opportunities.

- **Syracuse MPO:** Partnered with the American League of Bicyclists and AAA to develop a series of smart cycling PSAs. This was one part of a larger [Bicycle and Pedestrian Safety Outreach](#) effort led by the MPO.
- **The Delaware Valley Regional Planning Commission (DVRPC):** Partnered with local police to develop messages for overhead signs focused on aggressive driving and led a multi-disciplinary Regional Safety Task Force (RTSF), which meets frequently and discusses safety improvement implementation, including both behavioral and infrastructure projects.
- **Regional Planning Commission of Greater Birmingham (RPCGB):** Identified distracted driving as one of the emphasis area for their regional plan. To address this concern, MPO staff formed a partnership with the University of Alabama at Birmingham (UAB) and initiated a [distracted driver simulator program](#) to educate young drivers on the dangers of distraction.
- **South Central Planning and Development Commission:** Shares information from state (including SHSO), regional, and local safety partners through an email blast list on upcoming safety campaigns, activities, events, and opportunities. The Louisiana SHSO provides information to the MPO to share through their email list.
- **Spartanburg Area Transportation Study:** Formed a partnership with the County Coroner and has been using local media interviews and outreach spots to raise awareness on transportation safety.

- **East-West Gateway Council of Governments:** Partners with the Missouri DOT to bring a one-day teen driver safety program to local high schools. The [Drive for Tomorrow](#) program includes presentations, driving simulators, a pledge committing to safer driving behavior, and a \$500 scholarship for one student. In Missouri, the SHSO is housed in the DOT.
- **Hillsborough MPO:** Lead a multi-faceted campaign to coordinate safety outreach and education efforts, including social media, enlisting community leader champions, media publications, Day of Remembrance activities, a cycling Ride of Silence, a pedestrian Walk of Silence, and a video about recent victims of traffic violence.
- **Fairbanks MPO:** Identified young drivers as an issue area in the region. After reviewing the Alaska SHSP, staff identified “Pursuing programs to ensure outreach and education to young drivers” as a proven countermeasure. In coordination with the local school district, the MPO will: 1) Provide monetary support to the school district to reinstate driver’s education classes; and 2) Provide student scholarships for private driver education courses.
- **Nashville MPO:** Worked in partnership (although the details of the partnerships are not discussed in the literature) with TNDOT, the SHSO, and TN Department of Safety to develop a law enforcement training for officers on the laws pertaining to pedestrians and bicyclists. MPO staff also helped author language in the Tennessee Driver’s License Manual on the laws and rights of pedestrian and bicyclists on the roadway.
- **Chicago Metropolitan Agency for Planning (CMAP):** CMAP developed a Traffic Safety White Paper, April 2018, <https://www.cmap.illinois.gov/documents/10180/845900/Traffic+Safety+white+paper.pdf/06054fe6-2a39-2e87-6d38-3f88e37e9e35> which shares data on regional safety priorities and makes recommendation for how the agency could assist with implementation. Besides the traditional role of supporting or programming infrastructure improvements, the document suggest other methods that could spur more regional behavioral safety activities. This includes analyzing crash data for each jurisdiction and sharing that information (this would include analysis for all potential emphasis areas, not just infrastructure); working with local jurisdictions to develop their own 4E local road safety plans; and specifically seeking NHTSA grant funds for education or enforcement efforts that could be led or administered by CMAP. These efforts point to a range of behavioral-related activities than an MPO could take on.
- **Palouse Regional Transportation Planning Organization (RTPO):** Palouse is the RTPO (rural planning agency, so not an MPO) for the southeastern portion of Washington state. In their LRTP, they identified a safety goal to target construction projects as well as enforcement and education to save lives. They did successfully apply for a NHTSA grant from the SHSO to continue the Palouse Driver Safety Campaign (the campaign is in its second year). The campaign is intended to target drivers on US195 & SR26 drivers and provide education related to young, distracted & drowsy drivers. The level of engagement between the SHSO and RTPO is unclear, but worth exploring in Washington as the SHSO appears interested in supporting transportation planning agencies.

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# APPENDIX B – SURVEY RESULTS

## Survey Questions and Results

Twenty-one questions were asked in the Phase 2 survey. The results are summarized for each question and any key themes relevant to the Phase 3 interviews, identified.

### Program Characteristics

**1. The regional behavioral safety effort was designed to address (Check all that apply):**

Selection	No. of MPOs Selecting (of 8)	No. of States Selecting (of 6)
Pedestrian safety	8	6
Bicycle safety	7	5
Impaired driving	3	3
Young Drivers	3	3
Older Drivers	3	3
Distracted driving	4	3
Occupant protection	3	3
Speeding	3	4
Motorcycles/Mopeds	3	3
Other (Please explain)		

- Regional behavioral safety effort was designed to address local SHSPs. (BMC)
- Recently completed a local road safety plan that covers all these areas except occupant protection. Will design new programs to implement the plan beyond bicycle and ped safety program. (CDTC)
- Vision Zero (2 responses), which covers all areas. (RTC Washoe County, Plan Hillsborough)

- Pedestrian and Bicycle safety were the most common focus areas for regional behavior safety efforts, with all respondents selecting Pedestrian and nearly all selecting Bicycle (except for NJTPA and NJ).
- Three MPOs (Plan Hillsborough, BMC, and MARC) and three states (NY, MD, TN) selected all nine focus areas. However, it will be clarified in the interviews whether all the focus areas are simply being referenced in plans and/or the extent to which actions are being taken to implement regional behavioral programs and projects in those areas.
- Additional investigation is needed to determine why pedestrian and bicycle safety is the issue of most concern for some regional behavioral safety efforts and if the other focus areas are primarily addressed by the SHSOs versus through coordination with the MPO.



**2. What led to identification and/or implementation of the regional safety behavioral effort? (Check all that apply):**

Selection	No. of MPOs Selecting (of 8)	No. of States Selecting (of 6)
Data-driven safety issue identified at state level	5	4
Data-driven safety issue identified at regional level	7	4
Enhanced interest in collaboration to achieve statewide safety targets	4	4
Available funding	3	3
Agency or staff interest	6	4

- All elements played a role in identifying and implementing the regional safety behavioral efforts, with data-driven safety issues and staff/agency interest being the most common.
- Funding availability was not cited as frequently as a motivation for implementation of the effort.
- Additional investigation is needed during the interview to understand what data was analyzed, who conducted the analysis, and what sparked enhanced interest in safety.

**3. The regional safety behavioral planning or programming effort includes the following elements (Check all that apply):**

Elements Included	No. of MPOs Selecting (of 8)	No. of States Selecting (of 6)
Public education and awareness (including PSAs, TV, radio, pamphlets, social media, etc.)	7	6
Public outreach and engagement (including classes, presentations, listening sessions, pop-up events, etc.)	7	6
Sharing/distributing information about behavioral safety efforts or campaigns	8	6
Enforcement efforts	5	5
Information and education on new engineering treatments	7	4
Emergency response efforts	1	3

- Regional safety behavioral efforts focus mostly on education and outreach. Further investigation is needed to understand what these types of activities are and how they are being implemented. In addition, it will be informative to understand why some of the other areas, such as enforcement and emergency response efforts, are lacking.

**4. To initiate and/or implement the regional behavioral safety effort, collaboration occurred between (Check all that apply):**

Organization Type	No. of Respondents (of 14)
MPO	13
SHSO	12
State DOT	12
Local/municipal governments	13
Enforcement agencies	12
Emergency response services	8
Public health professionals	12
Advocacy groups	12
Other (Please explain)	Private companies (TN)

- Nearly all respondents identified that they were collaborating with all groups listed, through safety coalitions or committees. Further investigation is needed during the interviews to understand the make-up of the collaboration, how it has advanced regional safety behavior efforts, the strongest (and weakest) partnerships, and other considerations.
- Emergency Response Services was the organization type least selected so it will be important to understand the challenges (and opportunities for those that have been successful) in collaborating with that stakeholder group.
- The involvement of Private Companies was cited by one respondent (TN HSO) and may be an interesting case to highlight.

**5. The regional behavioral safety effort has been active for [ ] years.**

Years Program Has Been Active	Number of Responses
<= 3 years	5
5-7 years	3
10-20 years	4
>20 years (52 years)	1

- Responses were a mix of newer and more established programs. Responses range from two years to 52 years (Tennessee HSO). Five programs are fairly new (less than five years old), and five programs have been in place more 10 or more years.
- It may be interesting to select a newer program and an established program as case studies to compare coordination approaches.

## 6. Program funding – amounts, mechanisms, and sources.

Agency	Funding Amount	Funding Frequency/Mechanism	Funding Source
MPO	\$0	One-time effort	NHTSA Grant
MPO	\$0	Shoestring budget, all agencies contribute as needed	Agency contributions
SHSO	\$0	Unfunded directly	Unfunded
MPO	\$50,000 (approx.)	Funded annually	Fed. Transp. Planning Funds
MPO	\$61,000	Funded annually	NHTSA Grant
MPO	\$400,000+	Funded annually	NHTSA Grant and State Funds
SHSO	\$500,000	Funded annually	NHTSA Grant
SHSO	\$800,000	Funded annually	NHTSA Grant and State Funds
SHSO	\$1,000,000	Funded annually	NHTSA Grant
SHSO	\$22,000,000	Funded annually	NHTSA Grant
MPO	Varies year to year	Funded annually	Fed. Transp. Planning Funds
MPO	No response	Funded annually	Fed. Transp. Planning Funds
MPO	No response	Funded annually	Fed. Transp. Planning Funds
SHSO	No response	Funded annually	No response

- Funding amounts for behavioral safety efforts vary widely. Three respondents (2 MPOs and 1 SHSO) indicated that funding is currently zero. Previous funding was either a one-time effort or is cobbled together from participating agencies. An additional respondent said funding varies from year to year (MPO).
- Seven respondents indicated funding that ranges from \$50,000 to \$1 million with one program funded at \$22 million (TN). These programs are funded annually and most often from a NHTSA grant.
- Three additional respondents did not provide a funding amount, but in these instances Federal transportation planning funds are the source for most of these responses.
- Further investigation will be needed during the interviews to understand what types of efforts are being funded, why certain funds are being used versus others, and what the funds are being utilized for.

**7. The regional behavioral safety effort is staffed by the following number of employees (FTE).**

Staff Level (FTE)	No. of MPO Staff	No. of SHSO Staff
0.5 FTE	1 response	0 responses
1 FTE	1 response	3 responses
1.5 FTE	1 response	0 responses
2 FTE	5 responses	0 responses
3 FTE	1 response	1 response
4 FTE	0 responses	3 responses
5 FTE	2 responses	1 response
10 FTE	1 response	0 responses
23 FTE	0 responses	1 response
Other:		
<ul style="list-style-type: none"> <li>Multiple state and community partners (NV, NY)</li> </ul>		

- The number of staff positions varies widely. MPOs may have reported the number of positions at their MPO, while states may have reported the number of positions at all MPOs in the state (which could mean double counting). Respondents may have also included staff from other partner agencies. The question warrants further investigation during the next phase.

**8. The SHSO is housed in:**

SHSO is Housed in:	No. of Responses
The DOT	3
Independently	3
Dept. of Motor Vehicles	2
Office of Attorney General	2
Dept. of Public Safety	1
MPO	1
Dept. of Homeland Security	1

- There is a wide range of responses about where the SHSO is housed. It would be interesting to look at cases where the SHSO is housed in the DOT and compare with cases where the SHSO housed in an agency that does not have transportation as a primary focus.

**Collaboration Characteristics**

9. How did the MPO and SHSO collaboration on the regional behavioral safety effort begin? (Check all that apply):

How Collaboration Began	No. of Responses (of 14)
MPO identified behavioral effort in a regional safety or transportation plan	7
MPO applied for a NHTSA grant	3
MPO invited SHSO to participate in planning process, meeting, event, other	8
SHSO reached out to MPO	4
A third party or agency suggested the partnership	2
Federal requirements for target setting and performance management encouraged collaboration	3
Continuation from past collaboration	5

- An MPO action, such as identifying a behavioral effort in a regional plan or inviting the SHSO to participate in the MPO's planning process, is often the impetus for MPO and SHSO collaboration. Investigating further how these partnerships started, continue to advance, and the mutual benefits, will be important.
- In four cases the SHSO reached out to the MPO and in two cases, a third party or agency suggested the partnership. Both of these situations also warrant additional investigation to understand how these collaborations came about.

**10. What resources are involved in the collaboration and who supplies them?**

Resource	MPO Provides	SHSO Provides	Shared
Funding	3	4	5
Staffing	4	1	7
Program Ownership	4	1	7
Program Materials	4	1	7
Data and Analysis	3	3	6

## Other:

- State provides the pedestrian safety materials. MPO provides the bicycle safety materials and develops programs for local government safety projects. (CDTC)
- The MPO owns one program while the State owns another. They collaborate regularly. (CDTC)
- The MPO's database is more accurate and makes trends more reliable to compare. (Plan Hillsborough)

- The most common response for each resource is "Shared." The survey responses represent a number of collaborations across all the potential resources. It will be important to understand how, and the extent, to which responsibilities are shared.

**11. How do the MPO and SHSO communicate with each other (Check all that apply)?**

Communication Mechanism	No. of Responses (of 14)
Regularly scheduled meetings	10
Ad hoc meetings	4
Email	9
Phone or video call	9
Social media	4
No communication	0

- Communication occurs most often through regularly scheduled meetings, email, and telephone calls. It will be important to understand the nature of the regularly scheduled meetings and how they are used for coordination purposes.

**12. How often do the MPO and SHSO communicate?**

Frequency of Communication	No. of Responses
Weekly	2
Bi-weekly	3
Monthly	4
Bi-monthly	0
Quarterly	3
Semi-annually	0
Annually	0
No Communication	0
Other	
<ul style="list-style-type: none"> <li>Varies, but at least quarterly</li> </ul>	

- Communication occurs monthly or even more frequently for most of the respondents, but at least quarterly for all who responded. Notably, two respondents indicated that communication occurs weekly. The frequency and nature of communication will be investigated further in the interviews.

**13. In what way is the MPO/SHSO partnership mutually beneficial (Check all that apply)?**

How Partnership is Mutually Beneficial	No. of Responses (of 14)
Increases human and economic resources	10
Enhanced public outreach and awareness	10
Greater legislative/leadership influence	7
Increases staff skills, such as data analysis, site selection, countermeasure knowledge, etc.	8
Enhances community safety (e.g., reduction in fatalities and serious injuries)	11
Brings together additional agencies beyond the MPO and SHSO to support and participate in the program	10
It has not been beneficial	0

- Respondents generally indicate that the partnership is mutually beneficial in each of these ways, with no respondents saying the partnership has not been beneficial. In the interviews, each of these will be explored in greater detail to help other agencies interested in behavioral safety build partnerships where none exist.

**14. How could MPOs and SHSOs better coordinate or enhance current coordination (Check all that apply)?**

How Current Coordination Could Be Improved	No. of Responses (of 14)
Attend and participate in safety related MPO or SHSO meetings	3
Dedicated meeting(s) between MPO and SHSO staff	4
Meet at least annually to discuss target setting	6
Mutual understanding on each agency's roles, responsibilities, and areas of overlap	4
Mutual understanding of regional safety issues/concerns	7
SHSO commitment to funding MPOs as grantees	5
MPO commitment to leading/administering behavioral programs	5
Other:	
<ul style="list-style-type: none"> <li>We have excellent regular communication with the state Highway Safety Office and I am not sure how we would even improve at this point. (CDTC)</li> <li>Coordination meets the current needs. (NJTPA)</li> </ul>	

- A variety of responses was received. Mutual understanding of regional safety issues/concerns received the most responses. Some items received few responses, likely because the respondents are already engaging in the activity.

**How Efforts are Supported**

**15. Which agency carried out these actions (Check all that apply and select entity):**

Action	MPO	SHSO	Both
Decision to support the regional behavioral safety effort program	5	5	1
Champion for the program	6	1	4
Program implementation	6	3	2
Assessment of program performance	7	3	1
Communicating/announcing performance results	4	4	3

- MPOs are more often the champion for the program, and they more often implement the program and assess program performance. This makes sense since the MPO is the key regional transportation convener. In the instances where efforts are being mutually supported however, it would be interesting to understand the different responsibilities for each agency, levels of support, and challenges or opportunities for success.



**16. What challenges were presented to achieving support for implementing collaborative behavioral safety planning and programming efforts (Check all that apply)?**

Challenge to Achieving Support for Collaborative Efforts	No. of Responses (of 14)
Limited or no agency leadership buy in	0
Limited or no legislative backing to implement certain behavioral safety efforts	3
Limited or no staff time to support the efforts	0
Lack of or insufficient funding resources	2
Lack of or insufficient performance data	2
Other	
<ul style="list-style-type: none"> <li>• Lack of flexibility with NHTSA funds. (INCOG)</li> <li>• Collaboration efforts have only been with safety performance measures. (TN)</li> </ul>	

- The number of respondents citing these challenges was low. This contradicts some responses to previous questions, including answers citing uncertain funding from year to year and programs that are currently receiving no funding. This will be investigated further in the interviews.

**17. What opportunities came out of the regional behavioral safety planning and programming efforts (Check all that apply)?**

Opportunities Coming from Regional Efforts	No. of MPOs Selecting (of 8)	No. of States Selecting (of 6)
Agency buy-in on regional behavioral safety efforts	4	2
Funding and resources for regional behavioral safety efforts	4	3
Understanding of regional behavioral safety needs	4	4
Understanding of MPO and SHSO functions and collaborative opportunities	4	4
Increased opportunities to achieve severe crash reductions	5	2
Other		
<ul style="list-style-type: none"> <li>• Collaboration efforts have only been with safety performance measures (TN)</li> </ul>		

- Respondents generally indicated successful outcomes resulting from the regional behavioral safety planning efforts. Interestingly, more MPOs than states selected “increased opportunities to achieve severe crash reductions.” Understanding the specific successful outcomes from each of these will be explored further in the interviews.

**18. In what ways is the culture in your state supportive of implementation of regional behavioral safety planning and programming efforts (Check all that apply).**

Ways the Culture in the State is Supportive	No. of Responses (of 14)
Strong elected official leadership	4
Strong agency leadership	9
Regular safety-related meetings/conferences	10
Legislative support	2
Safety funding	6
Funding safety in coordination with all transportation improvements	6
Public support for safety	5
Safety culture is limited	2
Other	
<ul style="list-style-type: none"> <li>• Safety is our #1 priority. (RTC Washoe County)</li> <li>• Collaboration efforts have only been with safety performance measures (TN)</li> </ul>	

- Only two respondents said the safety culture is limited in support of regional behavioral safety planning and programming efforts. Several respondents said regular safety-related meetings or conferences provide a culture of support in their state. Notably, only a small number of respondents selected strong elected official leadership and legislative support as contributing to a culture of support.

**19. The MPO has developed a regional safety plan (i.e., Vision Zero plan, regional SHSP or other safety strategy).**

Response	No. of Responses
Yes	6
No	4

**20. If yes, did this plan incentivize your behavioral planning and programming efforts?**

Response	No. of Responses
Yes	5 out of 6
No	1 out of 6

- Six respondents indicated that the MPO has developed a regional safety plan. Of those responses, one MPO (NJTPA) said the regional plan did not incentivize behavioral planning and program efforts.

## **Lessons Learned**

### **21. What lessons learned from the MPO/SHSO collaboration and/or from implementing a regional behavioral safety program could you share (open ended):**

Response
<p>I think having MPOs being part of the development of behavioral programs at the state level is extremely beneficial. In our state, the MPOs can best speak to local government needs and realities, particularly on the engineering side of the safety equation which state highway offices and the DOT might not have access to. Collaboration has been key! (CDTC)</p>
<p>Having monthly meetings between the SHSO and the statewide safety working group and bike/ped group is useful. Also sitting on the group are outside entities (FHWA, DOT, Research, NYSP etc.). (NY)</p>
<p>It is critical to coordinate MPO and SHSO efforts and understand each role in traffic safety - valuable to engage local agencies and partners to address local issues and trends (through MPO) - local engagement through MPO leads to local engagement with SHSO. (BMC)</p>
<p>Coordination between the SHSO and MPOs and their constituent jurisdictions is important to address existing and emergency highway safety problems. Tailoring programs for unique interventions is crucial for success. (MD)</p>
<p>Strong communication between our SHSO (NJ DHTS) and our agency leadership was instrumental in the success of the Street Smart NJ Pedestrian Safety program. (NJTPA)</p>
<p>The MPO's leadership and commitment to staffing of this program has assisted greatly in moving the program forward, as our SHSO is currently suffering staff shortages and increasing demands on time. (NJ)</p>
<p>There would be potential to discover gaps not seen by the SHSO. (TN)</p>
<p>As our Vision Zero Task Force grows, we will need to have strong admin support to document and demonstrate how action items are being completed and collaboration and support from all the local jurisdictions is achieved. (Reno MPO)</p>
<p>Combining resources and partnerships with local advocates and non-profits with similar missions. (INCOG)</p>

# APPENDIX C – INTERVIEW QUESTIONS & PARTICIPANTS

## Interview Questions

### Partnerships

1. Describe the nature of the MPO-SHSO partnership.
2. What were the key issues or drivers that led to implementation of the effort?
  - a. Was it data-driven, staff-interest, elected leader interest? Who initiated?
  - b. Are there particular factors in your state or region that enhanced (or hindered) coordination (e.g., agency leadership, safety culture, policy or legislation, etc.)?
3. Describe the communication process between the state and the MPO.
  - a. Is it regular or ad-hoc? Formal or informal?
  - b. What works well?
  - c. What could be improved?
4. How are the following resources shared between the MPO and the SHSO?
  - a. Funding
  - b. Staffing
  - c. Materials
  - d. Data
5. Are emergency response service providers involved in this effort? Please describe their involvement. If they are not included, have you considered including them?
6. Is the private sector involved in this effort?
7. How are the other agencies you cited involved in the effort? What is their role?

### Programs

8. How long did the partnership take to become generally accepted operating protocol? Has coordination evolved over the life of the program? Are there plans to expand or evolve programs, especially for newer programs?
9. Did your agency select the focus areas of your program? How did you make the selection?
  - a. What programs are in place on speeding, distracted driving, and other focus areas? How is the MPO involved in speeding, distracted driving, and other focus areas typically led by the state? How is the state involved in areas like bike & pedestrian that are typically led by the MPO?

10. Funding:
  - a. For efforts that were one-time funding or programs that are not currently funded: Will funding be available in the future? What is this dependent on?
  - b. For programs with a higher level of funding: Will this level of funding continue from year to year? What is this dependent on? Does the effort have a separate budget and work program?
  - c. For MPOs that are using Planning Funds: Will you include the effort in future MPO work programs?
11. Where is the SHSO housed?
  - a. What pros and cons do you see from being where your SHSO is housed?
  - b. If not housed within an agency that has a transportation focus: What has been your experience with your SHSO?
12. Staffing: Elaborate on staffing responses as needed.
  - a. How many staff members are involved in this effort?
  - b. Describe titles, experience level, and training/education (engineer, planner, etc.)?
  - c. Are the staff dedicated to this effort or do they also have other responsibilities?
  - d. What staff from other agencies are involved, and what is their role?

### **Planning**

13. For the MPOs that developed a regional safety plan: Please describe the regional safety plan you developed.
14. For MPOs: How do the MPO safety programs feed into MPO long-range plans and TIPs? Are they important factors or not incorporated?
15. How do you see the new federal safety performance measures impacting collaboration efforts?
  - a. Describe existing collaboration efforts around the performance measures and target setting.
  - b. Does coordination meet the MPO and state's satisfaction?

### **Outcomes**

16. Describe the benefits you see from MPO/SHSO coordination.
17. Describe the challenges you have experienced with coordination. Were there areas that caused more heartache, confusion, or disagreement that other states, which are starting to hold a safety conversation now, should know about?
18. What advice would you give to another MPO or SHSO that is considering establishing or enhancing coordination?
  - a. If the participant responded to Question 21 (lessons learned): Please elaborate on your response you provided in the survey.
  - b. Do you believe this type of relationship in another state could blossom quicker? If so, what do you see when looking back that would have been helpful to have known earlier?

### State Highway Safety Offices (SHSOs)

- California Office of Traffic Safety
- Florida Department of Transportation (FDOT)
- Kansas SHSO
- Maryland HSO
- New Jersey Division of Highway Traffic Safety
- New York Governor's Traffic Safety Committee
- Oklahoma Highway Safety Office
- Rhode Island DOT
- Washington State Traffic Safety Commission

### Metropolitan Planning Organizations (MPOs)

- Baltimore Metropolitan Council, Baltimore, MD (BMC)
- Capital District Transportation Committee, Albany, NY (CDTC)
- Forward Pinellas, Clearwater, FL
- Hillsborough Transportation Planning Organization, Tampa, FL
- Indian Nations Council of Governments, Tulsa, OK (INCOG)
- Mid-America Regional Council, Kansas City, KS (MARC)
- North Jersey Transportation Planning Authority, Newark, NJ (NJTPA)
- Regional Transportation Commission of Washoe County, Reno, NV (RTC)
- Rapides Area Planning Commission, Alexandria, LA