Welcome Remarks

The meeting was called to order at 1:00 PM by Marco Gorini, DVRPC, and Sharang Malaviya, Pennsylvania Department of Transportation and RSTF co-chair. Mr. Malaviya first reiterated the goal of the RSTF: to reduce roadway crashes and eliminate serious injuries and fatalities from crashes in the Delaware Valley. Mr. Malaviya echoed a sentiment that has been discussed in previous RSTF meetings: this event is part of a continuing conversation at DVRPC and that all previous meetings can be found on the DVRPC webpage. He then introduced the keynote speaker, Mr. Jeff Shaw, Intersection Safety Program Manager for the US DOT Federal Highway Administration Office of Safety.

Keynote Speaker: Jeff Shaw, Federal Highway Administration

Mr. Shaw kicked off the meeting by introducing the topic of the Safe System Approach (SSA), a multifaceted strategy which aims to eliminate fatal and serious injuries for all road users by (1) accommodating human mistakes and (2) keeping impacts on the human body at a tolerable level. The SSA is made up of five elements: safe roads, safe road users, safe vehicles, safe speeds, and post-crash care. Six principles underlie the approach, including (1) death and serious injury are unacceptable, (2) humans make mistakes, (3) humans are vulnerable, (4) responsibility is shared, (5) safety is proactive, and (6) redundancy is crucial. Mr. Shaw described the Safe System principles as the conduits through which to implement the SSA. He noted that while addressing road safety through the “E’s” (enforcement, education, and engineering) is an effective framework for reducing traffic fatalities and severe injuries, its most notable flaw is that it is a somewhat siloed approach. The goal of the SSA is to address transportation safety in a way that is multidisciplinary and collaborative, incorporating all elements and principles that fall under the Vision Zero mission.
Mr. Shaw elaborated on the SSA by describing how these principles can be applied to a recently completed Safe System-based framework for intersection safety analysis, which focuses on reducing the kinetic energy involved in a crash in order to mitigate its severity. The methodology assesses conflict points within an intersection for factors like exposure and non-motorized movement complexity. Each type of conflict point (crossing, merging, etc.) is assigned a score based on these factors and then an intersection score from 1-100 is derived from the conflict point values. A higher score correlates to an intersection design that is better aligned with the Safe System principles. The framework is called the Intersection Control Evaluation (ICE), a data-driven, performance-based approach to evaluating alternatives for intersection design using the SSA principles to determine what approach will best minimize severe injuries and reward innovative treatments that protect all road users.

**Audience Q&A**

After concluding the presentation, Ms. Pat Ott of MBO Engineering announced that there was time for 1-2 audience questions for Jeff Shaw. Ms. Ott moderated the chat, and the first question asked was regarding the main audience of exposure for the ICE methodology (i.e motorized versus non-motorized road users). Mr. Shaw answered by stating that the answer is “both and all” [road users]. The methodology currently assumes that all non-motorized users use a common path (such as crosswalks and sidewalks); the methodology will eventually be updated to assess pedestrians and cyclists independently. A second question was asked in the Chat: “Are there any considerations towards limiting vehicle weights (when it comes to minimizing kinetic energy) or other vehicle characteristics like height?” Mr. Shaw responded by stating that while there has not been many prominent discussions regarding the topic, it's built into the practices of the Safe System Approach and kinetic energy management, and highlights the critical role of speed management strategies.

**Introduction to Special Strategies Session**

Following Mr. Shaw’s presentation, Kevin Murphy, DVRPC, introduced the focus of the meeting: a series of strategy sessions to inform the next edition of the Transportation Safety Analysis & Plan (TSAP). Mr. Murphy discussed the evolution of the TSAP, from a print document to an online Story Map. He also discussed the evolution of the approach, from focusing on AASHTO emphasis areas to incorporating the SSA as the guiding principle for the document. Incorporating the SSA is consistent with guidance from federal partners and with the Vision Zero goal embraced by the RSTF and the region. It is also a leading edge concept and applying it to the TSAP and special strategies session is a unique opportunity to explore how the principles of the SSA can be applied to the region's road safety plan. Applying the SSA framework resulted in new categories to guide the strategy sessions, which are outlined below. Following Mr. Murphy’s introduction, RSTF members split into four breakout groups to discuss strategies to eliminate severe crashes in the region that the RSTF would support in the new TSAP.

**Special Strategies Breakout Rooms**

Each of the four breakout groups discussed strategies in two consecutive sessions. The first session lasted about 40 minutes, and then RSTF members began discussion on a different set of topics for another 40 minutes. During each session, participants were asked to rate each strategy by how effective they felt the strategy was at eliminating severe traffic crashes and how difficult they felt the strategy was to implement by members of the RSTF. They also flagged strategies that merited further discussion. After
rating strategies, each group workshopped strategies to ensure that they reflected best practices and made note of strategies that needed to be changed, improved, or removed altogether.

The first session covered four concurrent topics:

1. **Safety Culture | Public Engagement**: These strategies relate to raising public awareness of safety concerns for some of the most vulnerable road users, including pedestrians, bicyclists, motorcyclists, older and younger drivers, and workers in work zones.
2. **Safety Culture | Internal Agency Culture**: These strategies relate to shifting safety culture within roadway-owning agencies and among other stakeholders in road safety toward a Vision Zero and Safe System approach to road safety.
3. **Safe Roads**: These strategies relate to the design of the roadway, including incentivizing best engineering practices, as well as strategies related to evaluating operations and ensuring safety through ongoing maintenance.
4. **Safe Speeds, Safe Vehicles, & Post-Crash Care**: Participants in this session honed strategies relating to three areas of the Safe System Approach:
   a. Safe Vehicle strategies related to consideration of vehicle design in roadway safety.
   b. Safe Speeds strategies related to controlling speed on the roadway.
   c. Post-Crash Care strategies related to mitigating injury severity and the likelihood of new crashes under similar circumstances.

After the first breakout session was completed, RSTF members transitioned to the second four concurrent sessions. These sessions covered the following topics:

1. **Safe People**: The Safe People session looked at strategies related to preventing and mitigating crashes amongst older and young road users while also considering elements of universal design.
2. **Safe Roads**: The second session on this topic, RSTF members assessed strategies found in analysis and planning efforts which help identify roadway locations for safety improvements.
3. **Safety Culture | Public Engagement**: The second session on this topic, the group rated strategies relating to raising public awareness of safe driving practices, such as anti-aggressive driving, seat belt use, and safety at railroad crossings as well as supporting enforcement efforts around the same issues.
4. **Safety Culture | Public Engagement**: The third session on this topic, the group rated strategies relating to raising public awareness of safety concerns around distracted and impaired driving and supporting enforcement efforts to curb these behaviors.

After the sessions were finished, RSTF members left the breakout groups and returned to the main session.

**Closing Remarks**

After the strategy sessions, Patricia Ott, MBO Engineering, concluded the program with gratitude to the participants for participating in the program. The next RSTF meeting is scheduled for fall 2021.
**Meeting Attendee List**

Shoshana Akins
Fiza Akram
Tracy Barusevicius
Edward Boothman
Amon Boucher
Valerie Brown
Frances Conwell
Porter Crumpton
Loresa Daniel
Elizabeth Dobbins
Dana Dobson
Brian Donovan
David Edelman
Joe Fiocco
Laura Fredricks
Will Friedrichs
Alison Giles
Maridarlyn Gonzalez
Eva H.
Keith Hamas
Bill Houpt
Morgan Hugo
Krys Johnson
Chi-Hyun Kim
Chris King
Olivia Lamborn
Shari Leichter
Kelvin MacKavanagh
Sharang Malaviya
Carly Mannon
Titania Markland
Darrell Merritt
Kevin Murphy
Justin Neff
Christine Norris
Patricia Ott
Seri Park
Rena Pinhas
Joseph Rapp
Christian Regosch
Lily Reynolds
Moriah Richardson
Liz Rogan
MaryAnn Sandone
Gustave Scheerbaum
Ian Schwarzenberg
Laureen Sendel-Grant

Jeffrey Shaw
Wayne Shelton
Keith Skilton
William Spaeth
Cathy Spahr
Jessica Stokes
Alyson Strigle
George Thiel
Mark Washington
Alex Yarde
Kelley Yemen