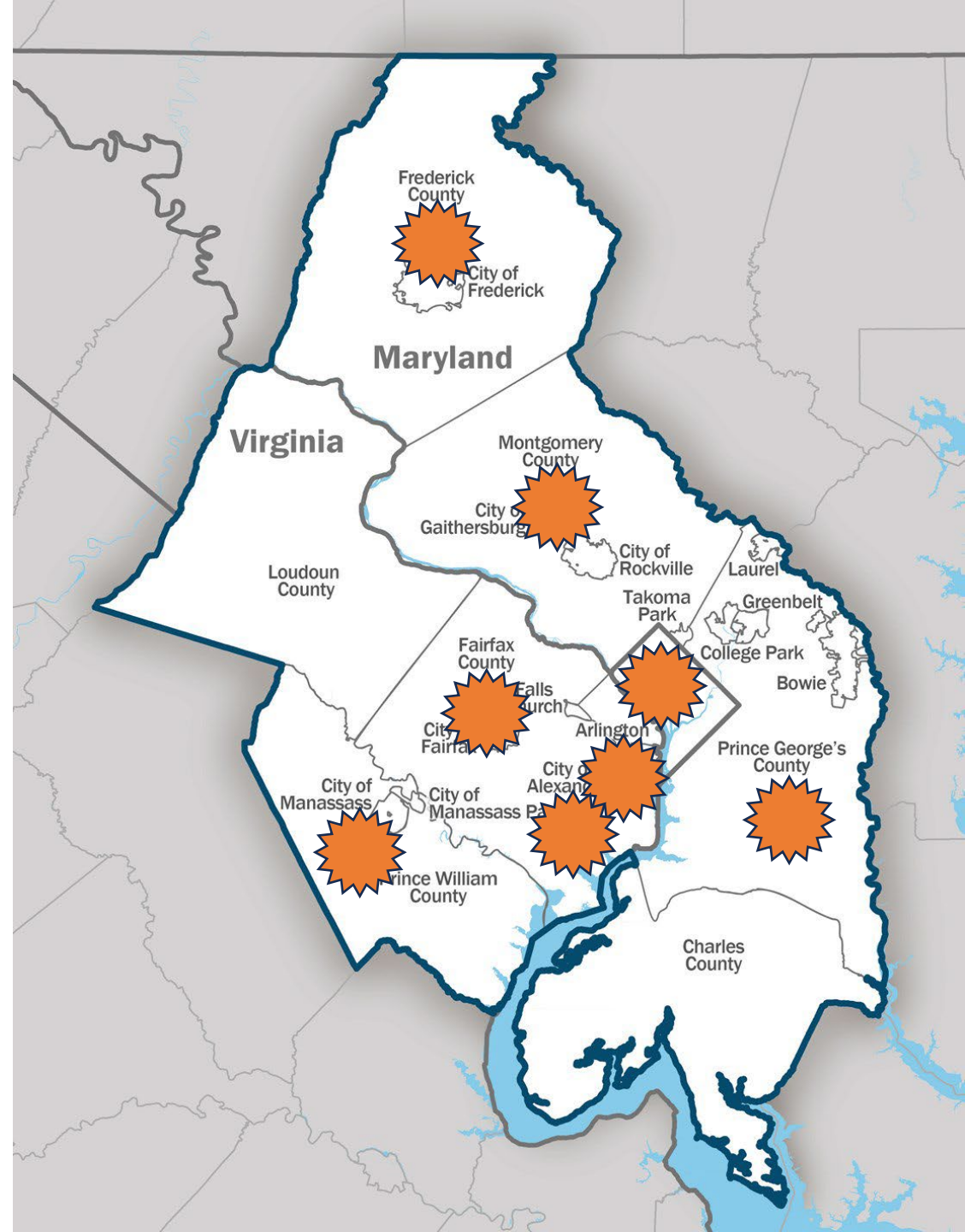


# Safe System Implementation

National Capital Region  
Transportation Planning Board  
October 31, 2024

# Vision Zero in the National Capital Region

Vision Zero Action Plans in Place or Underway



# The Safe System Approach



Source: FHWA

INDIVIDUAL  
EFFORT



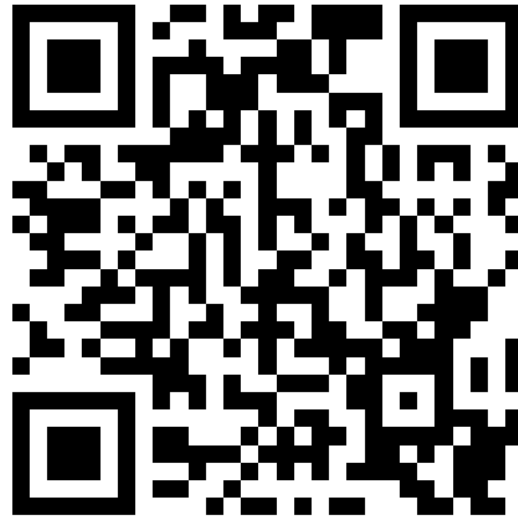
POPULATION  
HEALTH IMPACT



Source: VZN adapted from Ederer et al.

# Role of the MPO in the Safe System Approach:

## Federal Highway Administration



### Transportation Safety Planning and the Zero Deaths Vision: A Guide for Metropolitan Planning Organizations and Local Communities



U.S. Department of Transportation  
**Federal Highway Administration**

**TSP**  
TRANSPORTATION SAFETY PLANNING  
planning  
it safe

# Role of the MPO in the Safe System Approach: Vision Zero Network



## VISION ZERO NETWORK

### Centering safety at Metropolitan Planning Organizations

Metropolitan Planning Organizations (MPOs) are a big part of our lives and the regional economy through the planning and programming decisions they make. There are 407 MPOs in the U.S., one for each urbanized area with 50,000 or more people. Congress created MPOs to ensure that expenditures of governmental funds for transportation projects and programs are based on continuing, cooperative, and comprehensive planning across a region.

The role of MPOs is receiving increasing attention as more people across the country acknowledge the travesty of preventable loss of lives on our roadway. Last year, according to the [National Safety Council](#), an estimated 40,000 people lost their lives and more than 4 million more were injured on U.S. roadways. And traffic deaths disproportionately affect those in communities of color, low-income communities, youth, the elderly, and those walking and biking.

In communities across the nation, people are stepping up to say "enough is enough" and to shift the paradigms that allow for such tragedy and pain. Cities are adopting the goal and principles of Vision Zero, which works to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. Vision Zero strategies emphasize the

need for political leadership, infrastructure improvements, and data-driven strategies that prioritize preventing fatalities on roadways.

**Through regional planning, funding, and policy, MPOs are uniquely positioned to embrace Vision Zero and save lives.** This resource provides examples from around the country and six recommendations for MPOs to improve safety outcomes.

#### PLANNING

A central power of MPOs comes in their ability to stimulate a collaborative process to address issues that no single jurisdiction can tackle alone. A region's transportation system is the thread that connects other regional priorities, such as economic competitiveness, access to jobs, public health and safety, environmental quality, and development patterns.

**Long range transportation plans** Metropolitan transportation plans identify how transportation funds are spent and must consider ten factors including to: "increase the safety of the transportation system for motorized and non-motorized users." How actively and meaningfully MPOs implement this safety factor in their long-range plan varies.

| TRADITIONAL APPROACH                 | VISION ZERO                                |
|--------------------------------------|--|
| Traffic deaths are <b>INEVITABLE</b> | Traffic deaths are <b>PREVENTABLE</b>      |
| <b>PERFECT</b> human behavior        | Integrate <b>HUMAN FAILING</b> in approach |
| Prevent <b>COLLISIONS</b>            | Prevent <b>FATAL AND SEVERE CRASHES</b>    |
| <b>INDIVIDUAL</b> responsibility     | <b>SYSTEMS</b> approach                    |
| Saving lives is <b>EXPENSIVE</b>     | Saving lives is <b>NOT EXPENSIVE</b>       |

# Role of the MPO in the Safe System Approach:

Regional Safety Vision

Coordination & Collaboration

Focus on Speed

Engage the Public

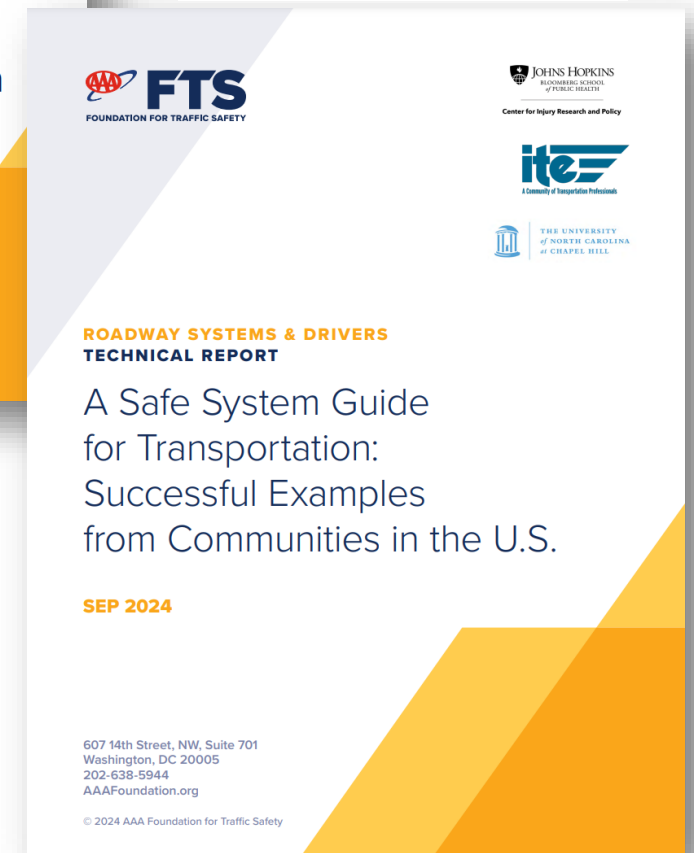
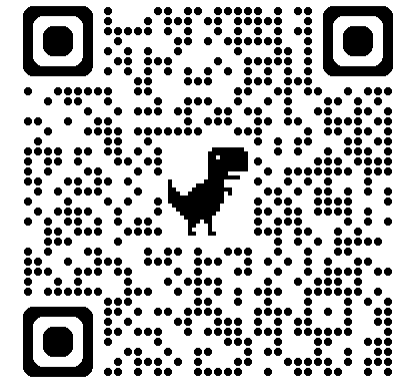
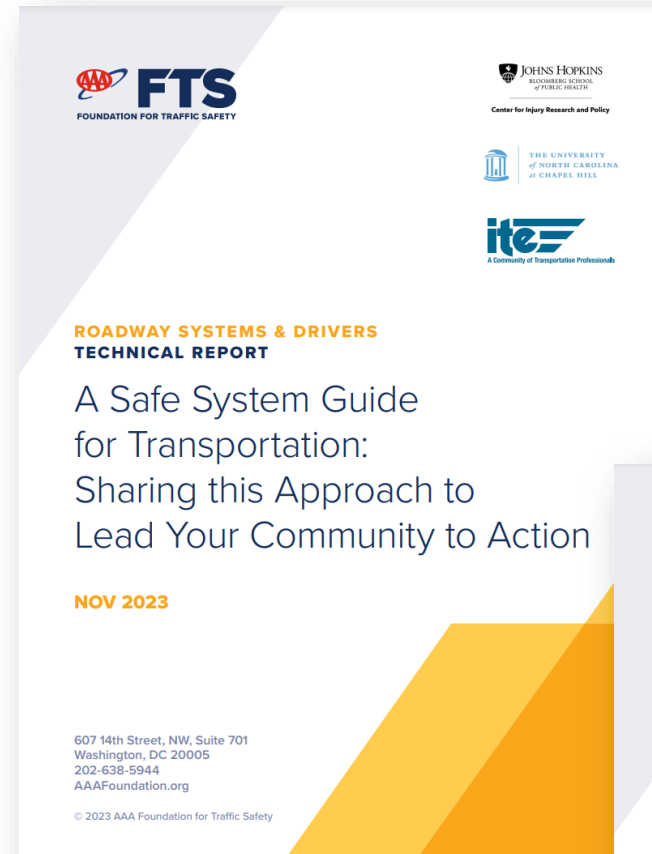
Culture of Safety

Performance Measures and Targets

# AAAFTS-JHU-ITE-UNC Collaboration

**Phase 1:** Guidance for community safety advocates

**Phase 2:** Guidance for community safety practitioners



# Case Studies





# Hillsborough, Florida TPO

## Safe System Focus:

- Motivated by high fatality rate
- Led Regional VZ Action Plan
- Communications and media

## Funding:

- Support from Mayor and city departments for resources and funding,
- Enabled SS4A federal grants.

## THE DANGEROUS REALITY

**W**e have a crisis in Hillsborough County.

Our streets are some of the deadliest in the country. Each day, Hillsborough County residents travel roads with the highest traffic fatality rate per capita among large counties in the United States.<sup>1</sup>

From 2005 to 2015, nearly two thousand people died as a result of motor vehicle crashes on Hillsborough County roadways.<sup>2</sup> On average, 33 more people than the national average for counties with similar populations are killed on our roadways each year.

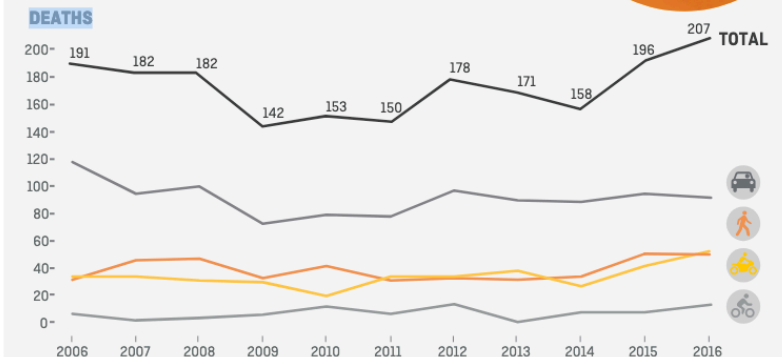
Biking or walking makes you especially vulnerable. The Tampa Bay area's pedestrian fatality rate is higher than almost any other metro area in the United States. On average, at least one person walking and one person biking are involved in a crash every day. A significant portion result in serious injury or death.

<sup>1</sup> 2015 FARS data and Census population estimates for 2015

<sup>2</sup> Florida Department of Health <http://www.flhealthcharts.com/charts/default.aspx>

Hillsborough County has the highest traffic fatality rate per capita of all large counties in the country.

**13%**  
OF ALL INJURY  
CRASHES  
in Hillsborough from  
2012-2016 ended in  
**SERIOUS INJURY  
OR DEATH**



**HILLSBOROUGH COUNTY TRAFFIC DEATHS  
2006-2016**

Source: Hillsborough County, Crash Data Management System.

# Hillsborough, Florida TPO



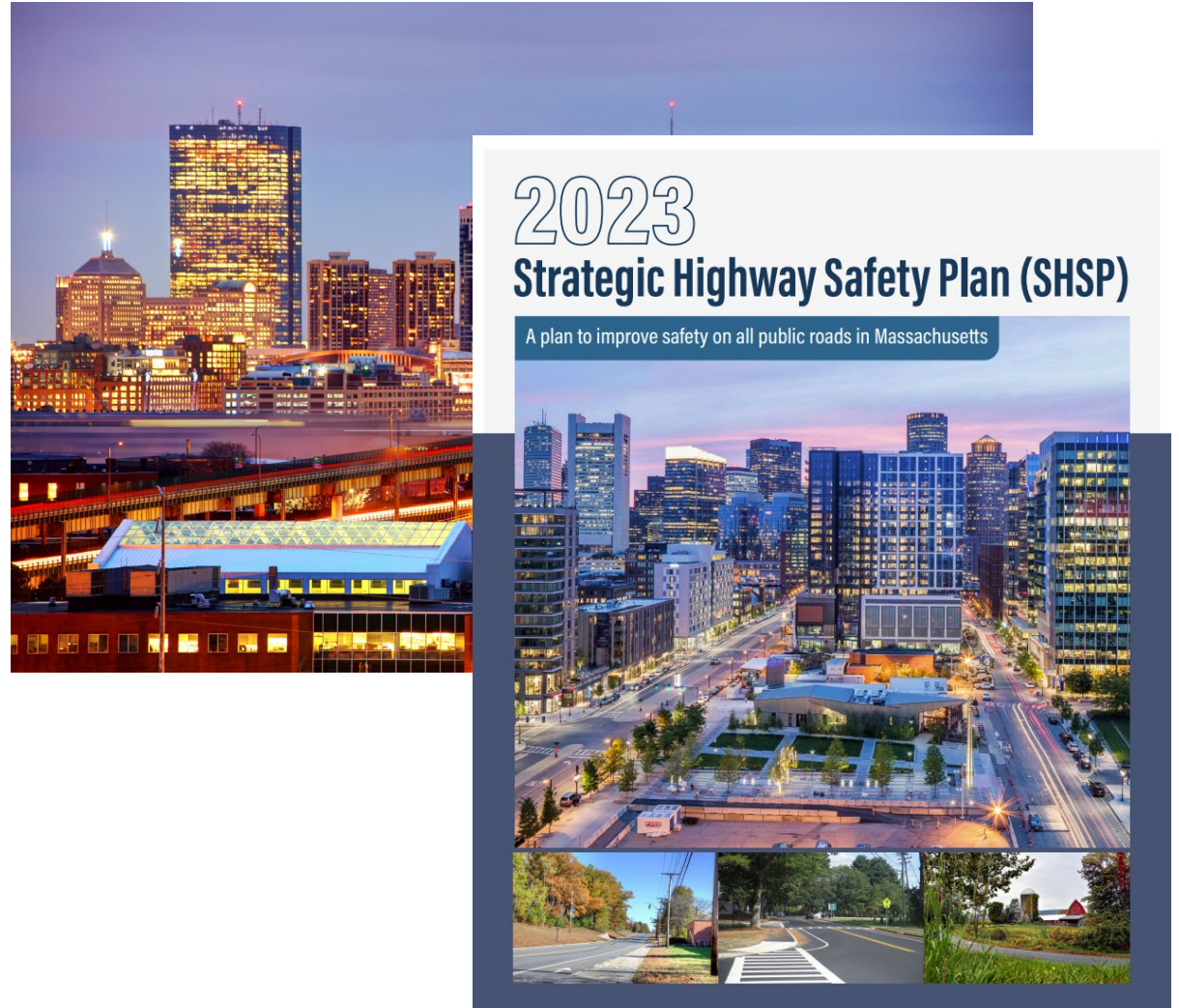
## Lessons Learned:

- Regional planning facilitates implementation
- Messaging for public support
- Prioritize underserved communities.
- Follow data-driven approach.

# Massachusetts

## Safe System Challenges

- Jurisdictional issues
- Safe speeds
- Stakeholder coordination



## 2023 Strategic Highway Safety Plan (SHSP)

A plan to improve safety on all public roads in Massachusetts

# Massachusetts

## Lessons Learned:

- Focus on Safe System principles rather than countermeasures
- Including a focus on equity
- Overcoming resistance among stakeholders

## Funding:

- The state supports local Safe System initiatives through resources and funding, including partnerships for SS4A federal grants.



Source:  
MassDOT

# Madison, Wisconsin

## Safe System challenges

- Post-pandemic traffic deaths.
- Disparities in traffic enforcement citations.
- Resistance to conceding parking space.



Source: City of  
Madison

# Madison, Wisconsin

## Lessons Learned:

- Importance of high-level leadership.
- Building on existing movement.
- Community engagement is essential.
- Commitment for the long term.

## Funding:

- Federal and state grants for momentum.
- City budget allocation for sustainability.



A promotional graphic for "Westside Community Connections". It features three circular portraits of Alder John W. Duncan (District 1), Alder Nasra Wehelie (District 7), and Alder Barbara Harrington-McKinney (District 20). To the right, it says "FEATURING: Yang Tao, Ph.D., P.E. Director of Traffic Engineering" and provides the contact information "Council@cityofmadison.com | (608) 266-4071". Below this, it says "CONNECT WITH WESTSIDE ALDERS &amp; CITY STAFF!" and "Please join Alder Wehelie, Alder Duncan, and Alder Harrington-McKinney as they host Yang Tao, who will share updates on the Vision Zero Initiative, Safe Streets Madison program, and street lighting." At the bottom, it provides a Zoom link: "Zoom Link: www.cityofmadison.com/westsidecommunityconnections", the meeting time "6:00 - 7:30 PM", and the date "Thursday, January 18th, 2024". It also includes a QR code and the text "REGISTER IN ADVANCE FOR THIS MEETING AT QR CODE OR LINK ABOVE".

Source: City of  
Madison

# McKenzie County, North Dakota

- Safe System challenges
  - Low density
  - Very high fatality rate
  - Safe roads (focus on roadway infrastructure)
  - Staffing turnover



# McKenzie County, North Dakota

## Lessons Learned:

- Working with State Department of Transportation.
- Engaging diverse partners - Oil & Gas, Agriculture industries.
- Including overrepresented populations such as Native American communities in the process.

**An education tool to save lives!**

In 2015, the North Dakota Department of Transportation developed an interactive seat belt education tool to share with schools, community groups and law enforcement. This is a highly portable 18-inch square "hologram board" which projects a 3-D illustration of a pickup truck rollover crash. The illustration changes views as the board is turned.

Why a rollover crash? North Dakota crash data shows that rollovers are more likely to cause fatal injury than any other crash. The majority of rollover fatalities are not wearing a seat belt. Nearly 81 percent of those who died in single vehicle rollovers in 2017 were unbelted and approximately 82 percent of those unbelted fatalities were totally or partially ejected from the vehicle. The hologram board is designed to show drivers and passengers what happens to belted versus unbelted occupants during a rollover crash—a life-saving lesson.

A video showing the hologram board can be found at [VisionZero.ND.gov](http://VisionZero.ND.gov).

A hologram board, with carrying case, talking points and lighting system, can be checked out for your use at no charge. To reserve use of the hologram board, contact Ashlee Doan at [adoan@nd.gov](mailto:adoan@nd.gov) or call 701-328-2598.



**Viewpoint 1:** Traveling on a road, a pickup passenger is wearing a seat belt, while the driver is not.

**Viewpoint 2:** The driver swerves, loses control and the pickup leaves the roadway.

**Viewpoint 3:** Due to overcorrection, the truck rolls. The driver begins to exit the vehicle through the window due to the force of the roll.

**Viewpoint 4:** The truck completes at least one roll. The driver is ejected and lays near the vehicle. The passenger, however, is still restrained in their seat, unharmed.

**VISION ZERO**  
Zero fatalities. Zero excuses.

**NDDOT**  
North Dakota  
Department of Transportation

Source: NDDOT



# Questions?

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Johns Hopkins Center for Injury Research and Policy

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