TENNESSEE STRATEGIC HIGHWAY SAFETY PLAN

Jessica Rich, Safety Engineer
Federal Highway Administration
Tennessee Division
OVERVIEW

• What is the SHSP?

• Safety Performance Measures

• Tennessee SHSP

• Performance Management
  • Action Plans
DATA

TENNESSEE FATALITIES

Fatalities
DATA

Rural vs. Urban Fatalities

- **2015**: Rural = 500, Urban = 100
- **2016**: Rural = 500, Urban = 100
- **2017**: Rural = 500, Urban = 100
- **2018**: Rural = 500, Urban = 100
- **2019**: Rural = 500, Urban = 600

Legend:
- Red: Rural
- Orange: Urban
WHAT IS A SHSP?

• It is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads.

• It is a major component and requirement of the Highway Safety Improvement Program (HSIP) (23 U.S.C. § 148).
WHAT IS A SHSP?

- SHSP must haves:
  - Consultation from a variety of stakeholders during the development process
  - Analysis and effective use of crash data
  - Incorporation of the 4Es
  - Consideration of safety needs of all public roads
  - A program of strategies to reduce fatalities and serious injuries
  - Evaluated every 5 years
WHAT IS THE SHSP?

Incorporation of Plans
• Highway Safety Improvement Program
• Highway Safety Performance Plan
• Motor Carrier Safety Action Plan
• Traffic Records Plan
• Interstate Incident Management Plan
• Work Zone Safety and Mobility Manual
SAFETY PERFORMANCE MEASURES

• Number of Serious Injuries
• Number of Fatalities
• Number of Serious Injuries per VMT
• Number of Fatalities per VMT
• Number of Non-motorized Fatalities and Serious Injuries
SHSP INITIATIVES

- Tennessee Safety and Operations Conference
- Road Safety Audits
- Local Roads Safety Initiative
- TITAN
- Work Zone Safety and Mobility Manual
- Yellow DOT Program
- Traffic Incident Management Training Facility
- Data Driven Safety Analysis
- Alternative Intersections
ROAD SAFETY AUDITS

• Intersection Safety Program

• Roadway Departure Program

• Local Road Safety Initiative

• Alternative Intersections
TENNESSEE INTEGRATED TRAFFIC ANALYSIS NETWORK

- MAP-IT
- Predictive Analytics
- Mandatory Submission of Crash Data
- Transfer into TRIMS
- Dashboards

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TRAFFIC INCIDENT MANAGEMENT FACILITY
TENNESSEE SHSP

Emphasis Areas 2004 to 2013

- Improve Decision Making Process and Information Systems
- Keep Vehicles in the Proper Lane and Minimize the Effects of Leaving the Travel Lane
- Improve Intersection Safety
- Improve Work Zone Safety
- Improve Motor Carrier Safety
- Improve Driver Behavior
- Safe Communities
- Legislation
- Training Programs
TENNESSEE SHSP

Emphasis Areas 2014 to present.....

• Crash Data and Analysis
• Infrastructure Improvements
• Driver Behavior
• Vulnerable Users
• Operational Improvements
• Commercial Vehicles
TENNESSEE SHSP

• Infrastructure Improvements
  • Intersections
  • Railroads
  • Roadway Departures

• Operational Improvements
  • Work Zones
  • Incident Management

• Vulnerable Users
  • Bike/Ped
  • Motorcycles
  • Senior Pedestrians
TENNESSEE SHSP

- Commercial Vehicle Safety
  - Inspections
  - Impaired Driving

- Crash Data and Analysis
  - TITAN
  - TRIMS
  - DDSA (HSM)

- Driver Behavior
  - Impaired Driving
  - Occupant Protection
  - Senior Drivers
  - Young Drivers
  - Distracted Driving
  - Aggressive Driving
EMPHASIS AREA TEAMS

Figure 8 - SHSP Organization Structure

Governor of Tennessee
Bill Lee

Executive Leadership
TDOT Commissioner - Clay Bright
TDOSHS Commissioner - Jeff Long

Plan Champion
TDOT STID Director - Steve Allen
THSO Director - Clyde "Buddy" Lewis

Steering Committee
TDOT STID PSO - Brandon Darks
FHWA - Jessica Rich

Safety Partners

Emphasis
Data Collection and Analysis
TDOT STID PSO - Jeff Murphy
THP - Patrick Dolan

Infrastructure Improvements
TDOT STID PSO
Brandon Darks

Operational Improvements
TDOT Traffic Operations
Brad Freeze

Area

Driver Behavior
THSO
Jason Ivey

Vulnerable Users
TDOT Multimodal
Suzanne Carlson

Motor Carrier Safety
FMCSA
Jeff Cooper
### STAKEHOLDERS AND COMMITTEES

<table>
<thead>
<tr>
<th>Steering Committee</th>
<th>Additional Safety Partners</th>
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<tbody>
<tr>
<td>Tennessee Department of Transportation (TDOT)</td>
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<td>Federal Highway Administration (FHWA)</td>
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<td>Tennessee Department of Safety and Homeland Security (TDOSHS)</td>
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<td>Tennessee Highway Patrol (THP)</td>
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<td>Federal Motor Carrier Safety Administration (FMCSA)</td>
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<td>Metropolitan Planning Organizations (MPO) and Rural Planning Organizations (RPO)</td>
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<td>Tennessee Regional Safety Council (TRSC)</td>
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<td>Tennessee Transportation Assistance Program (TTAP)</td>
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<td>Tennessee Department of Health (TDOH)</td>
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<td>Tennessee Trucking Association (TTA)</td>
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<td>American Association of Retired Persons (AARP)</td>
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<td>Mothers Against Drunk Driving (MADD)</td>
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<td>Tennessee Sheriffs' Association (TSA)</td>
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<td>Tennessee Association of Chiefs of Police (TACP)</td>
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<td>Motorcycle Awareness Foundation of Tennessee (MAFT)</td>
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<td>National Highway Traffic Safety Administration (NHTSA)</td>
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<td>Insurers of Tennessee</td>
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<td>Tennessee Education Association (TEA)</td>
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<td>Tennessee District Attorney General's Office</td>
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<td>Safe Routes to School National Partnership – Tennessee Network</td>
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<thead>
<tr>
<th>Partner Organizations, Associations, and Committees</th>
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<tbody>
<tr>
<td>Strategic Highway Safety Committee</td>
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<td>Traffic Records Coordinating Committee (TRCC)</td>
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<td>TDOT Traffic Operations Committee</td>
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<td>TDOT Work Zone Committee</td>
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<td>Commissioners Council on Injury Prevention</td>
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<td>Tennessee Impaired Driver Advisory Council</td>
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<tr>
<td>Transportation Systems Management and Operations (TSM&amp;O) Coordinating Committee</td>
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PERFORMANCE MANAGEMENT

- Monitor progress of statewide and emphasis area safety goal(s) and objectives.

- Provide quantifiable evidence of progress and helps managers determine whether the SHSP is meeting its stated goals and objectives.
PERFORMANCE MANAGEMENT

• Performance Measure Types
  • **Output Measures** – Quantitative and indicate the level of activity or effort.
    • Example: Number of centerline miles of rumble strips
  • **Outcome Measures** – Provide an indication of the effectiveness of the SHSP strategies or actions in meeting the fundamental objectives of the SHSP.
    • Example: Number of roadway departure fatalities
EMPHASIS AREA ACTION PLANS

- Measurable Objectives
- Performance Measures
- Strategies
- Action Steps
- Tracking Measures for Action Steps
- Funding Sources
## EMPHASIS AREA ACTION PLANS

5. Assess growing needs and concerns of vulnerable road users

<table>
<thead>
<tr>
<th>Action/Project ID</th>
<th>Action/Project</th>
<th>Plan</th>
<th>Agency/Champion</th>
<th>Performance Measure</th>
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<tbody>
<tr>
<td>5.1</td>
<td>Conduct bicycle and pedestrian count programs as part of turning movement count collections and other count efforts to contribute to the knowledge base of bicycle and pedestrian usage in the state and to assist with bicycle and pedestrian crash rate calculation.</td>
<td>HSIP</td>
<td>TDOT</td>
<td>• Percent of relevant conducted counts including bicycles and pedestrians volumes</td>
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<td>5.2</td>
<td>Support research of bicycle and pedestrian safety issues in Tennessee.</td>
<td>HSIP</td>
<td>TDOT</td>
<td>• Number of active research projects supported</td>
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<td>5.3</td>
<td>Analyze bicycle and pedestrian crash data, especially on state routes, associated with a nearby transit stop to determine if specific improvements may be needed for safe access to transit facilities.</td>
<td>HSIP</td>
<td>TDOT</td>
<td>• Development of routine crash analysis</td>
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IMPLEMENTATION AND EVALUATION

• SHSP Committee meets quarterly

• Conduct assessments of action plans

• Sub-Committees meet periodically (at least quarterly)

• Program Assessments to evaluate the program
QUESTIONS?