

TENNESSEE HIGHWAY SAFETY OFFICE

FFY



HIGHWAY SAFETY PLAN

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National Priority Safety Program Incentive Grants

The State applied for the following incentive grants:

1. 405(b) Occupant Protection: **Yes**
2. 405(c) State Traffic Safety Information System Improvements: **Yes**
3. 405(d) Impaired Driving Countermeasures: **Yes**
4. 405(d) 24-7 Sobriety Programs: **No**
5. 405(d) Alcohol-Ignition Interlock Law: **No**
6. 405(e) Distracted Driving: **No**
7. 405(f) Motorcyclist Safety Grants: **Yes**
8. 405(g) State Graduated Driver Licensing Incentive: **No**
9. 405(h) Nonmotorized Safety: **No**
10. 1906 Racial Profiling Data Collection: **No**

Commonly Used Abbreviations

ABR.	DESCRIPTION
ARIDE	Advanced Roadside Impaired Driving Education
CDC	Centers for Disease Control
CEU	Continuing Education Unit
CIOT	Click It or Ticket
CPS	Child Passenger Safety
CPST	Child Passenger Safety Technician
DMV	Department of Motor Vehicle
DRE	Drug Recognition Expert
DUI	Driving Under the Influence
EMS	Emergency Medical Services
FAST	Fixing America's Surface Transportation
FARS	Fatality Analysis Reporting System
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
GDL	Graduated Driver's License
HVE	High Visibility Enforcement
IACP	International Association of Chiefs of Police
IDTF	Impaired Driving Task Force
LEL	Law Enforcement Liasion
LIDAR	Light Imaging Detection and Ranging
MADD	Mothers Against Drunk Driving
MPO	Metropolitan Planning Organization
MREP	Motorcycle Rider Education Program
NDCF	National Digital Check Form (CPS)
NHTSA	National Highway Traffic Safety Administration
POST	Police Officer Standards and Training
PT	Police Traffic Services
RADAR	Radio Detection and Ranging
SADD	Students Against Destructive Decisions
SAFE	Seatbelts Are For Everyone
SFST	Standardized Field Sobriety Training
STOPS	Strategies and Tactics of Patrol Stops
TDOH	Tennessee Department of Health
TDOSHS	Tennessee Department of Safety and Homeland Security
TDOT	Tennessee Department of Transportation
THP	Tennessee Highway Patrol
THSO	Tennessee Highway Safety Office
TIM	Traffic Incident Management
TITAN	Tennessee Integrated Traffic Analysis Network
TRCC	Tennessee Traffic Records Coordinating Committee
TSRP	Traffic Safety Resource Prosecutors
VMT	Vehicle Miles Traveled

Highway Safety Planning Process

Data Sources and Processes

The Tennessee Highway Safety Office's (THSO) strategic planning process is a precise, data-driven effort, consisting of problem identification, project selection, and program evaluation. We strive for higher standards as planners, managers, and evaluators with an emphasis on accountability as we continue to implement our strategy for allocating federal highway funds to state and local agencies.

These processes are utilized to determine Tennessee's traffic safety problems, goals, and program/project/activity emphasis.

Processes Participants

Several committees and stakeholders are involved in the highway safety planning process. Tennessee receives input from its Traffic Records Coordinating Committee, Occupant Protect Task Force, and the Impaired Driving Advisory Council. An example of this can be seen when looking at the composition of the Impaired Driving Advisory Council:

- Tennessee Sheriff's Association (Law Enforcement)
- Tennessee Department of Health (Public Health)
- Tennessee Department of Mental Health and Substance Abuse Services (Treatment and Rehabilitation)
- Tennessee Department of Safety and Homeland Security (Communications and Public Relations)
- Tennessee Association of Chiefs of Police (Law Enforcement)
- Tennessee Department of Safety and Homeland Security (Ignition Interlock)
- Tennessee Department of Safety and Homeland Security (Driver Licensing)
- Tennessee Highway Safety Office (Administration)
- District Attorneys General Conference (Prosecution)
- Research, Planning, & Development / TITAN, Tennessee Department of Safety & Homeland Security (Data and Traffic Records)
- Judicial Outreach Liaison, The University of Tennessee, Knoxville (Adjudication)
- Judge, Hamilton County / Chattanooga (Adjudication)
- Metropolitan Government of Nashville Davidson County (Probation and Parole)
- Tennessee Wildlife Resources Agency (Law Enforcement)
- Tennessee Department of Correction (Corrections, Probation, and Parole)
- Tennessee Highway Patrol (Law Enforcement)
- Tennessee Bureau of Investigation (Law Enforcement)
- Administrative Office of the Courts (Courts)
- MADD (Citizen Activists)
- Local law enforcement

Description of Highway Safety Problems

The THSO and the National Highway Traffic Safety Administration (NHTSA) Regional Program Manager review the data to determine the high priority areas that would be addressed with Section 402 and Section 405 funding in Federal Fiscal Year (FFY) 2021.

For FFY 2021, the THSO informed potential grantees that identifying any data-driven highway safety problem would garner a higher priority, but the following are characterized as high-priority areas. These include a:

- Low rate of seat belt usage,
- Low rate of child passenger safety restraint usage,
- High rate of crashes with alcohol as a contributing factor,
- High rate of crashes with speeding as a contributing factor,
- High rate of crashes involving drivers under 20 years old,
- High rate of crashes involving an aggressive driver, and
- High rate of crashes resulting in serious injuries or fatalities.

The specific highway safety problems that subgrantees address must be data-driven. They are required to identify an intervention that focuses on traffic safety problems that are statistically over-represented. To assist, agencies can request comparative analyses through the Tennessee Integrated Traffic Analysis Network (TITAN) crash analysis system maintained by the TDOSHS.

It is essential to determine the cause of injuries or fatal crashes; therefore, subgrantees are encouraged to carefully review the crash data and examine problems within their community to unmask the root causes for over-representation in the data-defined problem area.

Performance goals, both short and long term, evolve from the problem identification process. Identified emphasis areas are selected from this process and reviewed to assure they are consistent with the guidelines and emphasis areas established by NHTSA.

The THSO released a Grant Application Guide to assist applicants in developing a high-quality application. This guide includes explanations and examples for each section and is available through the website (<http://tntrafficsafety.org>) and on the grants management system, TN Grants.

Methods for Project Selection

The FFY 2021 problem identification process began with a review of the state's performance, utilizing 2015 to 2019 trend data. The THSO used data from the TDOSHS Planning, Research, and Development Division and subgrantees' annual reports to give management staff an understanding of the highway safety problems within the State of Tennessee and identify productive programs and effective strategies utilized in 2019. Management staff convened to determine funding priorities, both programmatic and geographic, and devised a plan for project development for FFY 2021.

Coordination with the 2014 Strategic Highway Safety Plan (SHSP) was another critical consideration. Tennessee's SHSP was developed in consultation with federal, state, local, and private sector safety stakeholders using a data-driven, multidisciplinary approach involving engineering, education, enforcement, and emergency response. Management reviewed the plan's statewide goals, objectives, and emphasis areas.

Announcements regarding the FFY 2021 Highway Safety Program were sent (mailed and emailed) to potential state and local subgrantees, including all police chiefs and sheriffs. An example is provided at the end of this section. A notification was also posted on the THSO's website (www.TNTrafficSafety.org) and social media sites, Facebook and Twitter. The following characteristics are considered to be necessary as part of the grant application process:

- Interventions that focus on reducing injury crashes;
- Problem-identification procedures that are data-driven and that thoroughly document a local crash injury problem;
- Data collection systems that ensure high-quality crash reporting by law enforcement (e.g., accuracy and completeness of forms, supervisory oversight, training, etc.);
- Plans to link crash data to medical information concerning such variables as the severity of the injury, cost of treatment, degree of incapacitation, etc.;
- Documentation of the rationale that the intervention selected has a reasonable probability of being effective;
- An adequate intervention design that will provide meaningful outcome data on the degree of success in reducing injury crashes. The applicant must describe how the program's effectiveness will be measured and the comparison data against which the program's outcome will be evaluated; and
- Where local conditions permit, initiatives to coordinate crash-injury reduction efforts with other injury-reduction activities within the community, by participating in cooperative efforts with other professionals and citizens (e.g., educational, civic, judicial, business, medical, etc.) involved in creating a safe community.

Potential subgrantees were informed that a full grant proposal for FFY 2021 funding had to be submitted detailing the following:

- the process for focusing on traffic safety problems that were data-driven,
- the logic behind their proposed intervention strategies,
- the allowance for valid outcome measures in their project design, and
- the proposed budget.

The deadline for highway safety grant applications for FFY 2021 funding was March 31, 2020. A total of 438 applications (264 programmatic and 174 high visibility enforcement) were submitted to the THSO. After grant applications are received, each application is reviewed in detail to determine if it meets the THSO's goals, objectives, and project design requirements and is given a score. Based on this analysis, the THSO management team discusses the application scores and other considerations. These other considerations could include:

- Current or past grant performance,
- Likelihood of project to reduce crashes, injuries, and fatalities significantly, and
- Multi-jurisdictional nature of the project.

Once all of these items have been considered, the THSO management team can reach a consensus on which grants to award.

Funding is also a data-driven process through the use of a ranking and allocation tool that ensures counties (enforcement agencies) are funded on a comparable basis. It considers the extent of:

- Weighted fatal, injury, and property damage only (PDO) crashes,
- Alcohol-related crashes; 15-24 aged driver crashes,
- 65+ aged crashes,
- Speeding crashes,
- Motorcycle crashes,
- Population, and
- Vehicle miles traveled in each county.

Comparable basis refers to normalizing the county numbers relative to that of the county with the highest value.

Recommendations for funding are then made to the commissioner of the TDOSHS, who serves as the Tennessee Governor's Representative.

A project director is assigned for each project. The project director is typically the person who submitted the project, or the person responsible for the "subject" of the agency's project. Further, a program manager from the THSO is assigned to provide assistance and oversight to each subgrantee during the fiscal year to ensure that agencies accomplish their approved program initiatives; the practical application of this assistance is in the form of consulting services and technical support. For instance, the program manager monitors the activity of grantees, reviews claims, and makes recommendations to the director for a continuation of the program. Additional responsibilities include reviewing quarterly reports from the subgrantees, monitoring project activity on-site at least once per year, and providing daily office management. Also, feedback is

provided to each subgrantee regarding the strengths and weaknesses of project activities. Finally, suggestions are provided on how the subgrantee should proceed to achieve the results described in the original grant proposal if such assistance is needed.

The following is a tentative schedule of the highway safety program planning process and how that integrates with the grant application process.

FFY 2021 Highway Safety Program Planning Schedule (Tentative)

January - February	Data collection and review for problem identification
March 1	Grant application period begins online; establish a draft budget for management review
March	Attend LEL network meetings to discuss the application process and help agencies apply for HVE grants
March 31	Grant application deadline
March 15 - April 30	Grant application review process
May 1	THSO applies for Delegated Authority (DA) for sports/media contracts
May 1	THSO applies for Delegated Grant Authority (DGA)
May 10	THSO management meeting to finalize grants awards
May 17	Grant assignment meeting
May 24	Create a spreadsheet and update the online system with grant numbers, etc.
July 1	Highway Safety Plan and 405 applications due
July 1 – 31	Grant application revisions (programmatic and financial)
July 10	Meet with TDOSHS Legal about contract format and language
August 2	Spreadsheet to PIO and then forwarded to TDOSHS for press release
August 2	Denial letters go out to subgrantees/applicants
August 4	Create subgrantee file folders
August 14 - 25	Subgrantees receive grant contract and attachments for signatures
August-September	Grant contracts submitted to TDOSHS Finance, Legal, and Commissioner for approval
September 30	Grants awarded, with a copy placed in the subgrantee file
October 1	Grant year begins; begin work on the Annual Report
October-November	Grant orientation workshops
December 1 - 14	Closeout process complete
December 31	Annual Report due

Sample of FFY 2021 grant announcement:

FFY2021
GRANT APPLICATION PERIOD
MARCH 1 – 31, 2020

TN Department of
Safety &
Homeland Security

TENNESSEE HIGHWAY SAFETY OFFICE
Helping you **ARRIVE**

The graphic features a collage of Tennessee cityscapes at dusk or night, including the AT&T Tower, the AT&T Energy Center, and the Sunsphere. The text is overlaid in a dark, semi-transparent banner.

List of Information and Data Sources

Several data sources were reviewed in order to develop appropriate strategies and projects:

Abell, AJ. May 1, 2020. Nashville Tourism Hit Hard: 4th of July Likely Off, 835 Conventions Canceled. WZTV [Online]. Available: <https://fox17.com/news/local/nashville-tourism-hit-hard-4th-of-july-likely-off-835-conventions-canceled>

Boyd Center for Business and Economic Research, Tennessee State Data Center. "2019 Population Estimates Show Continued Growth in Tennessee, Southeastern States," [Online]. Available: <https://tnsdc.utk.edu/2019/12/31/2019-population-estimates-show-continued-growth-in-tennessee-southeastern-states/>

Beene, Ryan. (April 15, 2020). America's Empty Roads: Fewer Deaths But a Blow to State Budgets. *Bloomberg*. [Online]. Available: <https://www.bloomberg.com/news/articles/2020-04-15/america-s-empty-roads-fewer-deaths-but-a-blow-to-state-budgets>

DUI Tracker, TDOSHS Planning, Research and Development (TDOSHS)

Fatality Analysis Reporting System (FARS)

Federal Highway Administration, Office of Highway Policy Information, 2013-2018, *State Tables Vehicle-miles of travel, by functional system*, [Online]. Available: <https://www.fhwa.dot.gov/policyinformation/statistics.cfm>

National Institutes for Health website: <https://www.nih.gov/>

NHTSA. (2009) National Emergency Medical Services Education Standards. Retrieved from <https://www.ems.gov/pdf/811077a.pdf>

Richard, C.M., Magee, K., Bacon-Abdelmoteleb, P., & Brown, J. L. (2018, April). *Countermeasures That Work: a highway safety countermeasure guide for State Highway Safety Offices, Ninth edition* (Report No. DOT HS 812 478). Washington, DC: National Highway Traffic Safety Administration.

Research Notes, Crash Stats, and Traffic Safety Fact Sheets, National Highway Traffic Safety Administration (NHTSA)

Tennessee Integrated Traffic Analysis Network (TITAN)

Tennessee Department of Safety and Homeland Security, TITAN Division, (2020). "Tennessee Traffic Fatalities Daily Report." [Data set].

TDOSHS, TITAN Division, (2020). "Tennessee Traffic Fatalities Historical Report 2015-2019." [Data set]. Available: <https://www.tn.gov/content/dam/tn/safety/documents/dailyfatality2019.pdf>

TITAN Business Unit. (2020). Tennessee traffic crash data. Tennessee Department of Safety and Homeland Security. Available: <https://www.tn.gov/content/dam/tn/safety/documents/CountyCrashRankings2019.pdf>

Uniform Guidelines for State Highway Safety Programs

Watson, Len. The Platinum Ten. Retrieved from <http://www.resqmed.com/GoldenHourPlatinum10.pdf>

Description of Outcomes

The THSO shares three common performance targets with the Highway Safety Improvement Program: number of fatalities, rate of fatalities, and number of serious injuries. These performance measures are shared with our state's Strategic Highway Safety Plan (SHSP). The Safety PM Working Group consists of staff from the Tennessee Department of Transportation (TDOT), the TDOSHS, the Federal Highway Administration, and Metropolitan Planning Organizations (MPOs) from within the state. The target setting process consisted of data review, trend analysis, context/consideration of crucial factors, consensus on target setting assumptions, and discussion and consensus on draft targets. The Safety PM Working Group provided recommendations to an oversight committee, which included directors from both TDOT and the THSO. Finalized targets were presented to the executive leadership at both agencies for review and approval.

The shared targets are based on a 5-year rolling average, using data from the Fatality Analysis Reporting System (FARS) for fatalities, state databases for data about serious injuries, and TDOT for vehicle miles traveled (VMT). Consequently, some targets are increasing, while others are decreasing. Despite the numbers presented in some areas, the THSO and its partners are committed to reducing fatalities and crashes in all performance areas. Our mission calls us to utilize education, enforcement, and outreach to change the apparent trends fostering and sustaining changes in driver behavior.

Performance Report

Progress towards meeting State performance targets from the previous fiscal year's HSP

Performance Measure Name	Progress
C-1) Number of Traffic Fatalities (FARS)	In Progress
C-2) Number of Serious Injuries in Traffic Crashes (state crash data files)	In Progress
C-3) Fatalities/VMT (FARS, FHWA)	In Progress
C-4) Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)	In Progress
C-5) Number of Fatalities in Crashes Involving a Driver or Motorcycle Operator with a BAC of .08 and Above (FARS)	In Progress
C-6) Number of Speeding-Related Fatalities (FARS)	In Progress
C-7) Number of Motorcyclist Fatalities (FARS)	In Progress
C-8) Number of Unhelmeted Motorcyclist Fatalities (FARS)	In Progress
C-9) Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)	In Progress
C-10) Number of Pedestrian Fatalities (FARS)	In Progress
C-11) Number of Bicyclists Fatalities (FARS)	In Progress
B-1) Observed Seat Belt Use for Passenger Vehicles, Front Seat Outboard Occupants (survey)	Achieved
Distracted driving fatalities	In Progress
Unique Viewers on TNTrafficSafety.org	In Progress
EMS Grants	Achieved
Classroom Attendance	In Progress
ARIDE Trained	In Progress
SFST Trained	In Progress
DRE Trained	In Progress
LEADS Trained	Achieved
Paid Media Impressions	In Progress
Earned Media Engagements	In Progress
Counties Deployed	Not Met
Paper vs. Electronic	Met

Performance Measure: C-1) Number of Traffic Fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

That THSO and its partner agencies are trending towards meeting the shared target set for the number of traffic fatalities. The shared performance target for FFY 2020 was to increase traffic fatalities by 4.52 percent, from 996.2 (2013-2017 average) to 1,043.4 (2016-2020 average). Preliminary data shows that the state averaged 1,039.8 traffic fatalities for 2015-2019 (average).

Performance Measure: C-2) Number of Serious Injuries in Traffic Crashes (state crash data files)

Progress: **In Progress**

Program-Area-Level Report

The THSO and its partner agencies are trending towards meeting the shared target set for the number of serious injuries in traffic crashes. The shared performance target for FFY 2020 was to decrease serious injuries by 12.10 percent from 7,227.0 (2013-2017 average) to 6,352.4 (2014-2020 average). Preliminary data shows that the state averaged 6,725.4 serious injuries for 2015-2019 (average).

Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)

Progress: **In Progress**

Program-Area-Level Report

The THSO and its partner agencies will strive to meet the shared target set for fatalities/VMT. The shared performance target for FFY 2020 was to decrease fatalities per vehicle miles traveled (VMT) by 4.78 percent from 1.319 percent (2013-2017 average) to 1.256 (2014-2020 average). Preliminary data shows that the state has a current 5-year fatality rate of 1.300 (2015-2019).

Performance Measure: C-4) Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO will strive to meet the target measure for the number of unrestrained passenger vehicle occupant fatalities, all seat positions. The FFY 2020 HSP set a target of 279, a 7.60 percent reduction from 2017. As of May 27, 2020, Tennessee has seen 140 unrestrained vehicle occupant fatalities.

Performance Measure: C-5) Number of Fatalities in Crashes Involving a Driver or Motorcycle Operator with a BAC of .08 and Above (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for the number of fatalities in crashes involving a driver or operator with a BAC of .08 and above. The FFY 2020 HSP set a target of 222, a 13.9 percent reduction from a 2013-2017 baseline. As of June 9, 2020, Tennessee has seen 63 fatalities in crashes involving a driver or operator with a BAC of .08 and above.

Performance Measure: C-6) Number of Speeding-Related Fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for the number of speeding-related fatalities. The FFY 2020 HSP set a target of 163, an 18.2 percent reduction from a 2013-2017 baseline. As of May 27, 2020, Tennessee has seen 67 speeding-related fatalities.

Performance Measure: C-7) Number of Motorcyclist Fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for the number of motorcycle fatalities. The FFY 2020 HSP set a target of maintaining 134 fatalities from 2017. As of May 27, 2020, Tennessee has seen 42 motorcycle fatalities.

Performance Measure: C-8) Number of Unhelmeted Motorcyclist Fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for unhelmeted motorcyclist fatalities. The FFY 2020 HSP set a target of 10, a 9.3 percent reduction from a 2015-2017 baseline. As of May 27, 2020, Tennessee has seen three unhelmeted motorcycle fatalities.

Performance Measure: C-9) Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO will strive to meet the target measure for the number of drivers age 20 or younger involved in fatal crashes. The FFY 2020 HSP set a target of 98, a 14.4 percent reduction from a 2015-2017 baseline. As of May 27, 2020, Tennessee has seen 53 young drivers involved in fatal crashes.

Performance Measure: C-10) Number of Pedestrian Fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO will strive to meet the target measure for the number of pedestrian fatalities. The FFY 2020 HSP set a target of 148, a 16.2 percent increase from 2017. As of May 27, 2020, Tennessee has seen 55 pedestrian fatalities.

Performance Measure: C-11) Number of Bicyclists Fatalities (FARS)

Progress: **In Progress**

Program-Area-Level Report

The THSO will strive to meet the target measure for the number of bicyclists fatalities. The FFY 2020 HSP set a target to maintain eight bicycle fatalities from 2017. As of May 27, 2020, Tennessee has seen four bicyclists fatalities.

Performance Measure: B-1) Observed Seat Belt Use for Passenger Vehicles, Front Seat Outboard Occupants (survey)

Progress: **Achieved**

Program-Area-Level Report

The THSO achieved the target measure for observed seat belt use for passenger vehicles. The FFY 2020 HSP set a target of 91.65 percent, a .75 percent increase from 2018. The final survey results from 2019 showed a 91.75 percent usage rate for Tennessee.

Performance Measure: Distracted Driving

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for the number of distracted driving fatalities. The FFY 2020 HSP set a target to maintain 48 distracted driving fatalities from 2017. As of June 2, 2020, Tennessee has seen 23 distracted driving fatalities.

Performance Measure: Unique Viewers on TNTrafficSafety.org

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for unique viewers on TNTrafficSafety.org. The FFY 2020 HSP set a target of 102,500. As of May 27, 2020, Tennessee has seen 83,337 unique viewers.

Performance Measure: EMS Grants

Progress: **Achieved**

Program-Area-Level Report

The THSO achieved the target measure for EMS grants. The FFY 2020 HSP set a target of awarding four grants, one per law enforcement liaison region. This target measure was achieved by awarding the following grants in the following regions:

- East - Campbell County Rural Fire Service
- East - Scott County Emergency Management Agency
- Cumberland - Baxter Fire Department
- Cumberland - Van Buren County Fire Department
- Middle - Children's Emergency Care Alliance
- Middle - Perry County Emergency Management Agency
- West - Jackson Madison Emergency Management Agency
- West - Selmer Fire Department

Performance Measure: Classroom Attendance

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for classroom attendance. The FFY 2020 HSP set a target of maintaining classroom attendance at 83 percent participation or higher during the federal fiscal year. As of May 27, 2020, Tennessee has a classroom attendance rate of 97.64 percent.

Performance Measure: ARIDE Trained

Progress: **In Progress**

Program-Area-Level Report

The THSO will strive to meet the target measure for the number of individuals trained in ARIDE. The FFY 2020 HSP set a target of 240 individuals to be trained. As of May 27, 2020, the THSO has trained 154 individuals in ARIDE. Due to the impact of COVID-19, 25 training classes as of May 27, 2020, have had to be canceled thus far.

Performance Measure: SFST Trained

Progress: **In Progress**

Program-Area-Level Report

The THSO will strive to meet the target measure for the number of individuals trained in SFST. The FFY 2020 HSP set a target of 300 individuals to be trained. As of May 27, 2020, the THSO has trained 288 individuals in SFST. Due to the impact of COVID-19, 25 training classes as of May 27, 2020, have had to be canceled thus far.

Performance Measure: DRE Trained

Progress: **In Progress**

Program-Area-Level Report

The THSO will strive to meet the target measure for the number of individuals trained as DRE. The FFY 2020 HSP set a target of 75 individuals to be trained. As of May 27, 2020, the THSO has trained 31 individuals as DRE, with 18 passing the final knowledge. Due to the impact of COVID-19, 25 training classes as of May 27, 2020, have had to be canceled thus far, which has also delayed the remaining individuals from taking the final knowledge.

Performance Measure: L.E.A.D.S. Trained

Progress: **Achieved**

Program-Area-Level Report

The THSO has achieved the target measure for the number of individuals trained as L.E.A.D.S. (Law Enforcement Aging Driver Specialist). The FFY 2020 HSP set a target of 30 individuals to be trained. As of May 27, 2020, Tennessee has trained 67 individuals.

Performance Measure: Paid Media Impressions

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for paid media impressions. The FFY 2020 HSP set a target of 66 million impressions, a 65 percent increase, during the calendar year. As of May 27, 2020, the THSO has had 40,155,716 impressions over five campaigns.

Performance Measure: Earned Media Engagements

Progress: **In Progress**

Program-Area-Level Report

The THSO is trending towards meeting the target measure for earned media engagements. The FFY 2020 HSP set a target of 224,000 engagements, a 40 percent increase, during the calendar year. As of May 27, 2020, the THSO has had 101,233 engagements.

Performance Measure: Counties Deployed

Progress: **Not Met**

Program-Area-Level Report

The THSO, through the THP, did not meet this target for the number of counties deployed. The FFY 2020 HSP set a target of 98.95 percent, a 1.06 percent increase by March 31, 2020. According to the TRCC strategic plan, eCitation has been deployed to 93 of the 95 counties (97.89 percent).

Performance Measure: Paper vs. Electronic

Progress: **Met**

Program-Area-Level Report

The THSO, through the THP, met this target for the number of eCitation vs. paper citations issued. The FFY 2020 HSP set a target of 50.00 percent, a 5.08 percent increase by March 31, 2020. According to the TRCC strategic plan, 65.45 percent of the THP citations issued, were issued electronically.

Performance Plan

Performance Measure Name	Target Period	Target Start Year	Target End Year	Target Value
C-1) Number of Traffic Fatalities (FARS)	5-Year	2017	2021	1,078.8
C-2) Number of Serious Injuries in Traffic Crashes (state crash data files)	5-Year	2017	2021	6,227.1
C-3) Fatalities/VMT (FARS, FHWA)	5-Year	2017	2021	1.355
C-4) Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)	3-Year	2019	2021	263.00
C-5) Number of Fatalities in Crashes Involving a Driver or Motorcycle Operator with a BAC of .08 and Above (FARS)	4-Year	2018	2021	241.00
C-6) Number of Speeding-Related Fatalities (FARS)	5-Year	2017	2021	149.00
C-7) Number of Motorcyclist Fatalities (FARS)	5-Year	2017	2021	161.00
C-8) Number of Unhelmeted Motorcyclist Fatalities (FARS)	5-Year	2017	2021	10.00
C-9) Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)	5-Year	2017	2021	98.00
C-10) Number of Pedestrian Fatalities (FARS)	5-Year	2017	2021	167.00
C-11) Number of bicyclists fatalities (FARS)	4-Year	2018	2021	6.00
B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	Annual	2021	2021	92.25
Citation Timeliness, Completeness, Uniformity – Counties Deployed	Annual	2020	2021	98.95
Paper vs. Electronic	Annual	2020	2021	75.00
Distracted Driving Fatalities	Annual	2018	2021	53.00

Paid Media Impressions	Annual	2021	2021	70,000,000.00
Earned Media Engagements	Annual	2021	2021	227,000.00
Unique Visitors on TNTrafficSafety	Annual	2021	2021	105,000.00
EMS Grants	Annual	2020	2021	4.00
L.E.A.D.S. Trained	Annual	2021	2021	60.00
Class Attendance	Annual	2020	2021	85.00
ARIDE Trained	Annual	2020	2021	240.00
SFST Trained	Annual	2020	2021	400.00
DRE Trained	Annual	2020	2021	50.00

Performance Measure: C-1) Number of Traffic Fatalities (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-1) Number of Traffic Fatalities (FARS)	Numeric	1,078.8	5-Year	2017

Performance Target Justification

The number of traffic fatalities in Tennessee for 2019 remained high, marking the 4th consecutive year of 1,000 fatalities or more. Current year-to-date fatalities as of May 20, 2020, show no change over the same date in 2019. This stable performance occurred despite drastic reductions in traffic volumes caused by school closures, workforce closures and shifts, and a Safer at Home order issued by the governor to combat the COVID-19 pandemic. This order was in effect from March 31, 2020, to April 30, 2020. However, many businesses chose to close or have employees work from home before that date. Many businesses have elected to extend those conditions beyond the expiration of the order.

Generally, as travel increases, so do the chances of drivers being involved in crashes. Factors contributing to increased travel typically include population increases, travel related to tourist activities, low fuel prices, and a good economy. While Tennessee's population continued to rise (0.85 percent from 2018 to 2019) and fuel prices are low, the abrupt shutdown of Tennessee's economy has significantly impacted traffic volumes in the Volunteer State. Traffic volumes have been reduced as much as 60 percent in some areas after the Safer at Home order was put into effect.

A state funding increase (IMPROVE Act) occurred in 2017 and requires TDOT to complete 962 projects over an unspecified period. However, declines in fuel tax revenue may slow the ability for the state to complete projects. Bloomberg reports that state transportation departments are expecting a 30 percent decline in fuel tax revenues over the next 18 months. Some of the IMPROVE Act projects include safety improvements; however, there is a lag between the time safety projects are implemented to completion and additional time needed for those projects to then have an impact on results.

One year of low fatalities (962 in 2015) will drop from the target period but will remain in the baseline period, keeping the baseline lower than the projected moving average. As previously stated, the number of fatalities has been over 1,000 during each of the three years of available data included in this target setting cycle (2017-2019).

Additional factors provided by the TDOSHS, and which may contribute to fatality numbers in Tennessee, include geography, tourism, and freight. While tourism is Tennessee's second-largest industry, it is theorized that travel to the Volunteer State will be impacted by the COVID-19 pandemic, as evidenced by Nashville having canceled 835 conventions and approximately 26 million people canceling trips to Music City through the end of 2020.

Work to increase traffic safety in Tennessee is ongoing. In addition to implementing the Highway Safety Manual, utilizing the predictive analysis to provide further enforcement at high crash

locations, and providing various training programs, a bill banning handheld cell phones or standalone electronic devices took effect on July 1, 2019. This bill also requires the TDOSHS to include distracted driving as part of the information presented in driver education training. Additionally, Tennessee's calendar year 2019 seatbelt usage rate (91.75 percent) was higher than the national average (90.7 percent). This marks the second year Tennessee's usage rate surpassed 90 percent.

TDOT has also been updating the state's Strategic Highway Safety Plan during the current performance cycle. Once implemented, strategies identified in the updated plan should help to reduce traffic fatalities and serious injuries. The Data Driven Safety Analysis implementation plan was developed to quantify the effectiveness of safety countermeasures used in TDOT processes using the Highway Safety Manual.

Targeted enforcement campaigns, such as Operation Hands Free, are being conducted around the state. Some Metropolitan Planning Organizations are using crash and speed data to identify areas for increased enforcement activities.

TDOT and Tennessee's MPOs are consistently working to improve safety through projects. These projects include intersection improvements, retro-reflective sign projects, and bicycle/pedestrian safety improvements. The Chattanooga – Hamilton Regional Planning Agency is working to develop a methodology for analyzing the 2016-2020 crash data by contributing factors that may be related to infrastructure. The development of this methodology should help to identify projects that will improve safety.

Targets were set by consensus among working group participants, which consisted of members of the THSO, TDOSHS, Tennessee Division Office of Federal Highway, and various divisions within TDOT. Input from the Knoxville Regional Transportation Planning Organization, the Greater Nashville Regional Council, Chattanooga – Hamilton Regional Planning Agency, Bristol Urban Area MPO, and the Memphis Metropolitan Planning Organization was included in the target decision making process.

Leadership approved a target of 1,078.8 for the 2017-2021 target setting performance cycle. This target is consistent with the 3-year linear trend line and assumes that the number of fatalities for both 2020 and 2021 will decrease by approximately 37 from the 2019 total.

It is always the intent of the THSO and our partner agencies to reduce traffic fatalities on our roadways. These targets are performance projections based on historical data and influencing factors.

Performance Measure: C-2) Number of serious injuries in traffic crashes (State crash data files)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-2) Number of Serious Injuries in Traffic Crashes (state crash data files)	Numeric	6,227.1	5-Year	2017

Performance Target Justification

Tennessee has been experiencing a decrease in serious injuries since 2015. A 19 percent decrease in serious injuries occurred in Tennessee from 2017 to 2018. In compliance with the Federal Highway Administration's (FHWA) Safety Performance Management Measures Final Rule (23 CFR 490), Tennessee revised the crash report in December 2017 to reflect the Model Minimum Uniform Crash Criteria Fourth Edition (MMUCC, 4th edition) "Suspected Serious Injury (A)" attribute found in the "Injury Status" element. All states were required to comply with the new definition by April 15, 2019. While it is thought that the drastic decrease in serious injuries in 2018 is likely an effect of updating the crash report to meet FHWA's requirement, the number of serious injuries continued to decrease from 2018 to 2019 by three percent.

Generally, as travel increases, so do the chances of drivers being involved in crashes. Factors contributing to increased travel typically include population increases, travel related to tourist activities, low fuel prices, and a good economy. While Tennessee's population continued to rise (0.85 percent from 2018 to 2019) and fuel prices are low, the abrupt shutdown of Tennessee's economy has significantly impacted traffic volumes in the Volunteer State with volumes reduced as much as 60 percent in some areas after the Safer at Home order was put into effect.

A state funding increase (IMPROVE Act) occurred in 2017 and requires TDOT to complete 962 projects over an unspecified period. However, declines in fuel tax revenue may slow the ability for the state to complete projects. Bloomberg reports that state transportation departments are expecting a 30 percent decline in fuel tax revenues over the next 18 months. Some of these projects include safety improvements; however, there is a lag between the time safety projects are implemented to completion and additional time needed for those projects to then have an impact on results.

Additional factors provided by the TDOSHS, and which may contribute to fatality numbers in Tennessee, include geography, tourism, and freight. Tennessee is bordered by eight other states and has 42 of 95 counties bordering another state. This may draw non-residents from out of state, which could contribute to safety issues due to varying laws and traffic operations between states. While tourism is Tennessee's second largest industry, it is theorized that travel to the Volunteer State will be impacted by the COVID-19 pandemic, as evidenced by Nashville having canceled 835 conventions and approximately 26 million people canceling trips to Music City through the end of 2020.

Work to increase traffic safety in Tennessee is ongoing. In addition to implementing the Highway Safety Manual, utilizing the predictive analysis to provide further enforcement at high crash

locations, and providing various training programs, a bill banning handheld cell phones or standalone electronic devices took effect on July 1, 2019. This bill also requires the TDOSHS to include distracted driving as part of the information presented in driver education training. Additionally, Tennessee's 2019 seatbelt usage rate (91.75 percent) was higher than the national average (90.7 percent). This marks the second year Tennessee's usage rate surpassed 90 percent.

TDOT has also been updating the state's Strategic Highway Safety Plan during the current performance cycle. Once implemented, strategies identified in the updated plan should help to reduce traffic fatalities and serious injuries. The Data Driven Safety Analysis implementation plan was developed to quantify the effectiveness of safety countermeasures used in TDOT processes using the Highway Safety Manual.

Targeted enforcement campaigns, such as Operation Hands Free, are being conducted around the state. Some Metropolitan Planning Organizations are using crash and speed data to identify areas for increased enforcement activities.

TDOT and TN's MPOs are consistently working to improve safety through projects. These projects include intersection improvements, retro-reflective sign projects, and bicycle/pedestrian safety improvements. The Chattanooga – Hamilton Regional Planning Agency is working to develop a methodology for analyzing the 2016- 2020 crash data by contributing factors that may be related to infrastructure. The development of this methodology should help to identify projects that will improve safety.

Targets were set by consensus among working group participants, which consisted of members of the THSO, TDOSHS, Tennessee Division Office of Federal Highway, and various divisions within TDOT. Input from the Knoxville Regional Transportation Planning Organization, the Greater Nashville Regional Council, Chattanooga – Hamilton Regional Planning Agency, Bristol Urban Area MPO, and the Memphis Metropolitan Planning Organization was included in the target decision making process.

The working group selected a target of 6,227.1 for the 2017-2021 target setting performance cycle. This target conforms to the 3-year linear trend line with a coefficient of determination value of 0.9992. The target is lower than the estimated baseline (2015-2019) identified for the current performance period.

It is always the intent of the THSO and our partner agencies to reduce serious injuries on our roadways. These targets are performance projections based on historical data and influencing factors.

Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-3) Fatalities/VMT (FARS, FHWA)	Numeric	1.355	5-Year	2017

Performance Target Justification

Generally, as the number of vehicle miles traveled (VMT) increases, the opportunity for severe vehicle crashes to occur also rises. Factors contributing to increases in VMT include population growth, low fuel prices, and a healthy economy. Since March, Tennessee has seen drastic reductions in traffic volumes caused by school and business closures, shift to remote work and a Safer at Home order issued by the governor to combat the COVID-19 pandemic. This order was in effect from March 31, 2020, to April 30, 2020. However, many businesses chose to close or have employees work from home before that date. Many companies have elected to extend those conditions beyond the expiration of the order.

While Tennessee's population continued to rise (0.85 percent from 2018 to 2019) and fuel prices are low, the abrupt shutdown of Tennessee's economy has significantly impacted traffic volumes in the Volunteer State. Traffic volumes have been reduced as much as 60 percent in some areas after the Safer at Home order was put into effect.

It is possible that a long-term reduction in VMT may be experienced as the state encounters an economic downturn. The Safety Working Group theorized that some employers are likely not to return to a standard office setting if telework performance has effectively provided continuity of services. Tennessee's second-largest industry is tourism, and, according to one report, Nashville has already canceled 835 conventions, with approximately 26 million people canceling trips through the end of 2020. Finally, there are conflicting views that a second wave of the pandemic may occur later in the fall, which would likely reduce traffic again.

Targets were set by consensus among working group participants, which consisted of members of the THSO, TDOSHS, Tennessee Division Office of Federal Highway, and various divisions within TDOT. Input from the Knoxville Regional Transportation Planning Organization, the Greater Nashville Regional Council, Chattanooga – Hamilton Regional Planning Agency, Bristol Urban Area MPO, and the Memphis Metropolitan Planning Organization was included in the target decision making process.

Published VMT from Federal Highway's Office of Highway Policy Information (OHPI) Highway Statistics Series Table VM-23 were used for calendar years 2018 and prior. TDOT's Long Range Planning Division estimates the 2019 calendar year VMT at 82,892 million miles. This estimate represents the preliminary VMT amount TDOT submitted to the Highway Performance and Monitoring System as of May 18, 2019.

Based upon the uncertainty of travel patterns as a result of the COVID-19 pandemic, the team reviewed travel data available for March, April, and early May and considered several scenarios before opting to take a conservative approach for identifying the fatality rate target. The team

estimates Tennessee will have declines in regular traffic as follows: 40 percent in March and April 2020, 20 percent in May, 10 percent in June, and will hold at 5 percent below regular traffic for the remainder of 2020 and 2021. (VMT for 2021 was estimated using an average of VMT from 2018, 2019, and projected 2020 values). Once the VMT estimates for calendar years 2020 and 2021 were agreed upon, the rate was then calculated using the 1,078.8 fatality number target to obtain the 1.355 target for the 2017-2021 target setting performance cycle.

It is always the intent of the THSO and our partner agencies to reduce traffic fatalities on our roadways. These targets are performance projections based on historical data and influencing factors.

Performance Measure: C-4) Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-4) Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)	Numeric	263.00	3-Year	2019

Performance Target Justification

The THSO will decrease unrestrained fatalities by 14.7 percent, from a multi-year baseline (2016-2018) of 308 to 263 by December 31, 2021 (three-year alternate baseline analysis). This will be accomplished through education and enforcement efforts in awarded grants, along with advertising efforts in alignment with the integrated communications plan.

Three Year Alternative Baseline Analysis

Baseline Period		Comparison Year		% Change
2011 - 2013 Avg.	371	2016	337	-9.2%
2012 - 2014 Avg.	367	2017	298	-18.9%
2013 - 2015 Avg.	345	2018	290	-16.0%
Current Multi-Year Base		Target Year	Estimate	Avg % Change
2016 - 2018 Avg.	308	2021	263	-14.7%

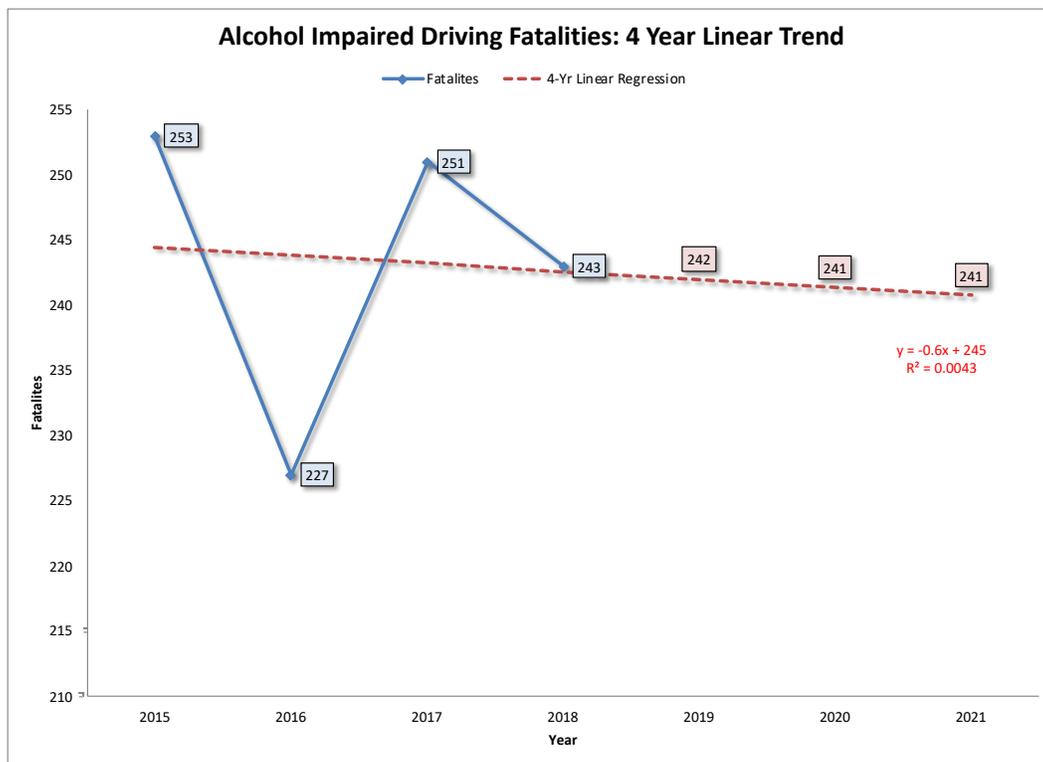
Performance Measure: C-5) Number of Fatalities in Crashes Involving a Driver or Motorcycle Operator with a BAC of .08 and Above (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-5) Number of Fatalities in Crashes Involving a Driver or Motorcycle Operator with a BAC of .08 and Above (FARS)	Numeric	241.00	4-Year	2018

Performance Target Justification

The THSO will decrease impaired fatalities by 0.82 percent, from a 2018 baseline of 243 to 241 by December 31, 2021 (four-year linear trend). This will be accomplished through education and enforcement efforts in awarded grants, along with advertising efforts in alignment with the integrated communications plan.



Performance Measure: C-6) Number of Speeding-Related Fatalities (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-6) Number of Speeding-Related Fatalities (FARS)	Numeric	149.00	5-Year	2017

Performance Target Justification

The THSO will decrease speed-related fatalities by 20.1 percent, from a multi-year baseline (2014-2018) of 186 to 149 by December 31, 2021 (five-year alternate baseline analysis). This will be accomplished through education and enforcement efforts in awarded grants, along with advertising efforts in alignment with the integrated communications plan.

Five Year Alternative Baseline Analysis

Baseline Period		Comparison Year		% Change
2009 - 2013 Avg.	218	2016	183	-16.2%
2010 - 2014 Avg.	220	2017	170	-22.7%
2011 - 2015 Avg.	212	2018	167	-21.2%
Current Multi-Year Base		Target Year	Estimate	Avg % Change
2014 - 2018 Avg.	186	2021	149	-20.1%

Performance Measure: C-7) Number of Motorcyclist Fatalities (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-7) Number of Motorcyclist Fatalities (FARS)	Numeric	161.00	5-Year	2017

Performance Target Justification

The THSO will limit the increase of motorcyclist fatalities by 16.4 percent, from a multi-year baseline (2014-2018) of 139 to 161 by December 31, 2021 (five-year alternate baseline analysis). While it is always the intent of the THSO to decrease the number of serious injuries and fatalities on Tennessee roadways, this target is a performance projection based on historical data and influencing factors. The THSO will attempt to decrease fatalities through education and enforcement efforts in awarded grants along with advertising efforts in alignment with the integrated communications plan.

Five Year Alternative Baseline Analysis

Baseline Period		Comparison Year		% Change
2009 - 2013 Avg.	130	2016	147	12.9%
2010 - 2014 Avg.	130	2017	135	4.0%
2011 - 2015 Avg.	127	2018	168	32.3%
Current Multi-Year Base		Target Year	Estimate	Avg % Change
2014 - 2018 Avg.	139	2021	161	16.4%

Performance Measure: C-8) Number of Unhelmeted Motorcyclist Fatalities (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-8) Number of Unhelmeted Motorcyclist Fatalities (FARS)	Numeric	10.00	5-Year	2017

Performance Target Justification

The THSO will decrease unhelmeted motorcyclist fatalities by 12.9 percent, from a multi-year baseline (2014-2018) of 11 to 10 by December 31, 2021 (five-year alternate baseline analysis). This will be accomplished through education and enforcement efforts in awarded grants, along with advertising efforts in alignment with the integrated communications plan.

Five Year Alternative Baseline Analysis

Baseline Period		Comparison Year		% Change
2009 - 2013 Avg.	15	2016	13	-12.2%
2010 - 2014 Avg.	12	2017	9	-25.0%
2011 - 2015 Avg.	12	2018	12	-1.6%
Current Multi-Year Base		Target Year	Estimate	Avg % Change
2014 - 2018 Avg.	11	2021	10	-12.9%

Performance Measure: C-9) Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-9) Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)	Numeric	98.00	5-Year	2017

Performance Target Justification

The THSO will decrease young driver fatalities by 13.6 percent, from a multi-year baseline (2014-2018) of 114 to 98 by December 31, 2021 (five-year alternate baseline analysis). This will be accomplished through education and enforcement efforts in awarded grants, along with advertising efforts in alignment with the integrated communications plan.

Five Year Alternative Baseline Analysis

Baseline Period		Comparison Year		% Change
2009 - 2013 Avg.	139	2016	129	-6.9%
2010 - 2014 Avg.	133	2017	113	-15.0%
2011 - 2015 Avg.	126	2018	102	-18.8%
Current Multi-Year Base		Target Year	Estimate	Avg % Change
2014 - 2018 Avg.	114	2021	98	-13.6%

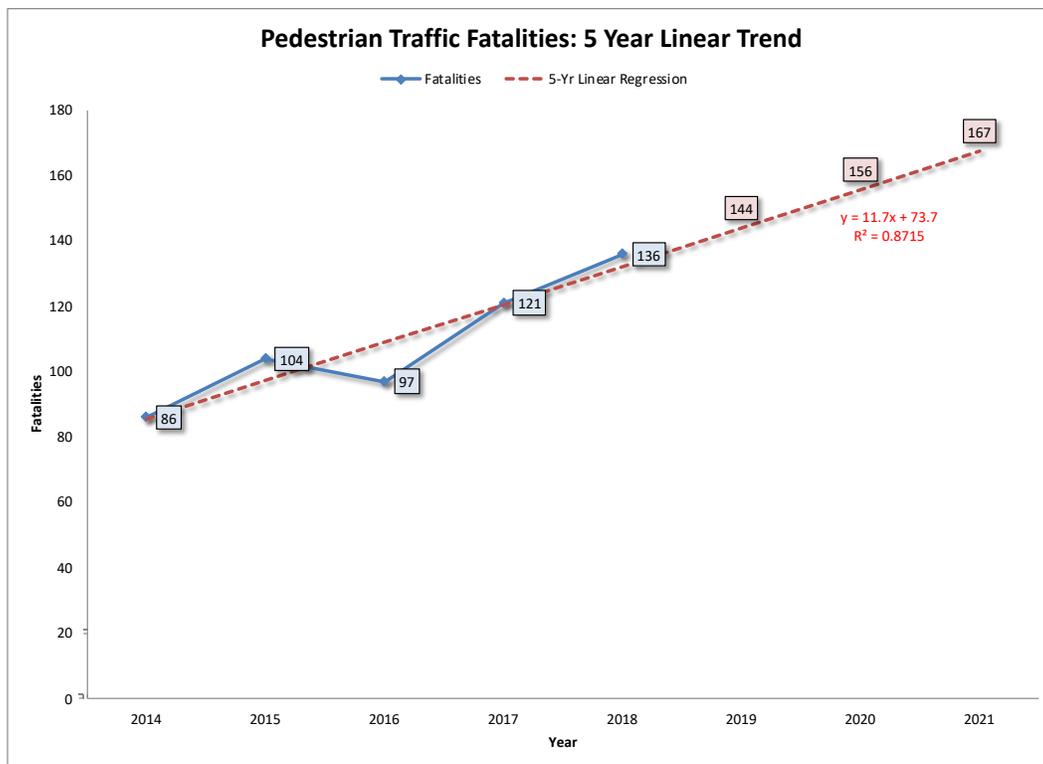
Performance Measure: C-10) Number of Pedestrian Fatalities (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-10) Number of pedestrian fatalities (FARS)-2020	Numeric	167.00	5-Year	2017

Performance Target Justification

The THSO will limit the increase of pedestrian fatalities by 22.8 percent, from a calendar year baseline (2018) of 136 to 167 by December 31, 2021 (five-year linear regression). While it is always the intent of the THSO to decrease the number of serious injuries and fatalities on Tennessee roadways, this target is a performance projection based on historical data and influencing factors. The THSO will attempt to decrease fatalities through education and enforcement efforts in awarded grants along with advertising efforts in alignment with the integrated communications plan.



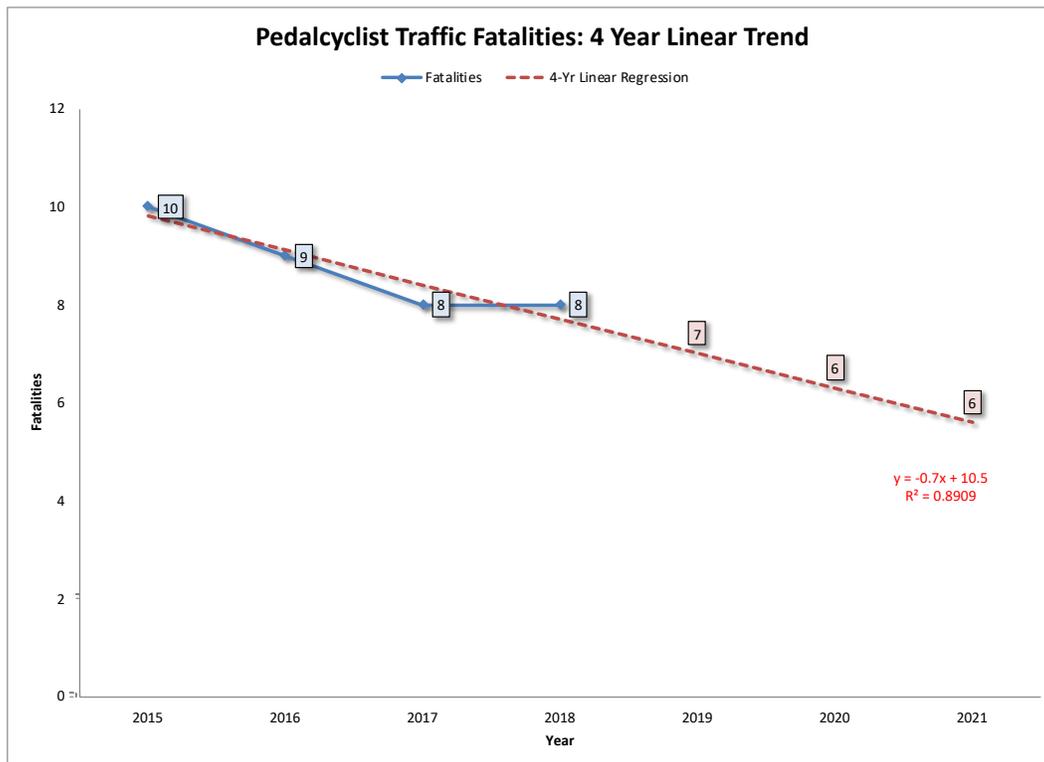
Performance Measure: C-11) Number of bicyclists fatalities (FARS)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-11) Number of bicyclists fatalities (FARS)-2020	Numeric	6.0	4-Year	2018

Performance Target Justification

The THSO will decrease bicyclist fatalities by 25.0 percent, from a calendar year baseline (2018) of 8 to 6 by December 31, 2021 (four-year linear regression). This will be accomplished through education and enforcement efforts in awarded grants, along with advertising efforts in alignment with the integrated communications plan.



Performance Measure: B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)-2020	Percentage	92.25	Annual	2021

Performance Target Justification

The THSO will increase the observed seat belt usage by 0.50 percent from 91.75 percent in 2019 to 92.25 percent by December 31, 2021. Recent increases in the observed seat belt usage rate lead the THSO to believe this is attainable.

Performance Measure: Citation Timeliness, Completeness, Uniformity – Counties Deployed

Primary performance attribute: **Uniformity**

Core traffic records data system to be impacted: **Citation/Adjudication**

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Citation Timeliness, Completeness, Uniformity – Counties Deployed	Percentage	98.95	Annual	2020

Performance Target Justification

The THP will increase the percentage of counties in Tennessee where citations are issued electronically by 1.06 points to 98.95 percent by March 31, 2021.

Performance Measure: Paper vs Electronic

Primary performance attribute: **Timeliness**

Core traffic records data system to be impacted: **Citation/Adjudication**

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Paper vs. Electronic	Percentage	75.00	Annual	2020

Performance Target Justification

The THP will increase the percentage of citations issued electronically versus paper by 8.55 points to 75.00 percent by March 31, 2021.

Performance Measure: Distracted Driving Fatalities

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Distracted Driving Fatalities	Numeric	53.00	3-Year	2018

Performance Target Justification

The THSO will decrease distracted driving fatalities by 12.79 percent, from a calendar year baseline (2018) of 61 to 53 by December 31, 2021. Distracted driving fatalities have fluctuated over the years with 2018 and then 2016 being the highest years in recent history. With the new hands-free legislation, a decrease in fatalities is attainable.

Performance Measure: Paid Media Impressions

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Paid Media Impressions	Numeric	70,000,000.00	Annual	2021

Performance Target Justification

The THSO will increase paid media impressions to over 70 million impressions by December 31, 2021. Due to recent activity on other paid media campaigns, this is achievable. Impressions are generally defined as any interaction with a piece of media content and an audience member.

Performance Measure: Earned Media Engagements

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
DRE Trained	Numeric	227,000.00	Annual	2021

Performance Target Justification

The THSO will increase earned media engagements to 227,000 engagements by December 31, 2020. Media engagements translate to a visitor on a social media site clicking on an image or video.

Performance Measure: Unique Visitors to TNTrafficSafety

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Unique Visitors to TNTrafficSafety	Numeric	105,000.00	Annual	2021

Performance Target Justification

The THSO will increase public awareness among Tennessee constituents, program providers, educators, law enforcement, and other safety advocates through the www.TNTrafficSafety.org website by having more than 105,000 unique visitors by December 31, 2020.

Performance Measure: EMS Grants

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
EMS Grants	Numeric	4.00	Annual	2020

Performance Target Justification

The THSO will provide at least four training grants, one to each LEL region in the state, to emergency medical professionals by September 30, 2021. Since Tennessee is mostly rural, response times for an ambulance can range from 10-30 minutes. By receiving effective training to treat and transport crash victims within the “Golden Hour,” these grants can make the difference in the prevention of another fatality on Tennessee roadways

Performance Measure: L.E.A.D.S. trained

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
LEADS Trained	Numeric	60.00	Annual	2021

Performance Target Justification-

The THSO will train 60 individuals as L.E.A.D.S. by September 30, 2021. L.E.A.D.S. is a POST-certified training designed to help law enforcement identify and maximize the safety needs of high-risk senior drivers at the local community level in Tennessee.

Performance Measure: Classroom Attendance

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Classroom Attendance	Percentage	85.00	Annual	2020

Performance Target Justification

The THSO will maintain classroom attendance of 85 percent participation or higher throughout FFY 2021. The training program offers a diverse series of classes to target highway safety issues throughout the fiscal year. While the THSO and its partners offer many classes, having a good attendance in each class maximizes the effective use of money spent.

Performance Measure: ARIDE Trained

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
ARIDE Trained	Numeric	240.00	Annual	2020

Performance Target Justification

The THSO will train 240 individuals in ARIDE by September 30, 2021. Once an officer has completed an ARIDE course, the officer is then eligible to attend more advanced training in the impaired driving field. This course provides the necessary tools for the detection, apprehension, and successful prosecution of drugged impaired drivers. As more officers are educated in impaired driving countermeasures, more impaired drivers will be removed from the roads, thereby decreasing the number of impaired driving crashes, injuries, and fatalities. A greater number of properly trained officers will increase the number of impaired driving convictions.

Performance Measure: SFST Trained

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
SFST Trained	Numeric	400.00	Annual	2020

Performance Target Justification

The THSO will train 400 individuals in SFST and as a SFST Instructor by September 30, 2021. An important element of the training program is the interest in impaired driving detection training. Officers who received this training found it to be very beneficial in conducting their assigned DUI-related duties. This course provides the necessary tools for the detection, apprehension, and successful prosecution of alcohol-impaired drivers. As more officers are educated in alcohol-impaired driving countermeasures, more alcohol-impaired drivers will be removed from the roads, thereby decreasing the number of alcohol-impaired driving crashes, injuries, and fatalities. A greater number of properly trained officers will increase the number of impaired driving convictions.

Performance Measure: DRE Trained

Performance target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
DRE Trained	Numeric	50.00	Annual	2020

Performance Target Justification

The THSO will train 50 DREs by September 30, 2021. DRE training is the highest level of impaired driving training offered. Once an individual has completed DRE training, the officer is considered an expert in the detection of impairment. NHTSA's *Countermeasures That Work, Ninth Edition*, indicates the effectiveness of DRE training as a countermeasure against impaired driving.

Certification

State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP.

I certify: **Yes**

Grant Funded Activity	Citations	Fiscal Year
A-1) Number of seat belt citations issued during grant-funded enforcement activities	15,555	2019
A-2) Number of impaired driving arrests made during grant-funded enforcement activities	2,941	2019
A-3) Number of speeding citations issued during grant-funded enforcement activities	73,464	2019

Program Areas

Program Area: Planning & Administration

Description of Highway Safety Problems

In an effort to reduce fatalities and serious injuries on Tennessee roads, the THSO administers programs focusing upon the behavioral aspects of highway safety through partnerships with law enforcement, judicial personnel, and community advocates. The objectives of the THSO are to:

1. Develop and prepare the Highway Safety Plan (HSP) along with developing and preparing additional plans as required.
2. Establish priorities for highway safety funding.
3. Develop and prepare the Annual Report.
4. Provide information and assistance to prospective grantees on program benefits, procedures for participation, and development plans.
5. Coordinate and facilitate training and public information activities for grantees.
6. Encourage and assist local political subdivisions in improving their highway safety planning and administrative efforts. Review and evaluate the implementation of state and local highway safety funds contained in the approved HSP. Coordinate the HSP with other federally and non-federally funded programs related to highway safety.
7. Assess program performance through analysis of data relevant to highway safety planning.
8. Utilize all available means for improving and promoting Tennessee's highway safety program. Complete the monitoring of contracts and grants.
9. Produce annual operating budgets and develop biennial budget strategies.
10. Deliver programs that are effective in changing the knowledge, attitude, and behavior of drivers to reduce crashes, injuries, and deaths.

A 50 percent state match is provided for state employee resources to complete the above objectives. An organizational chart of the highway safety office as of June 1, 2020, can be found on the following page.

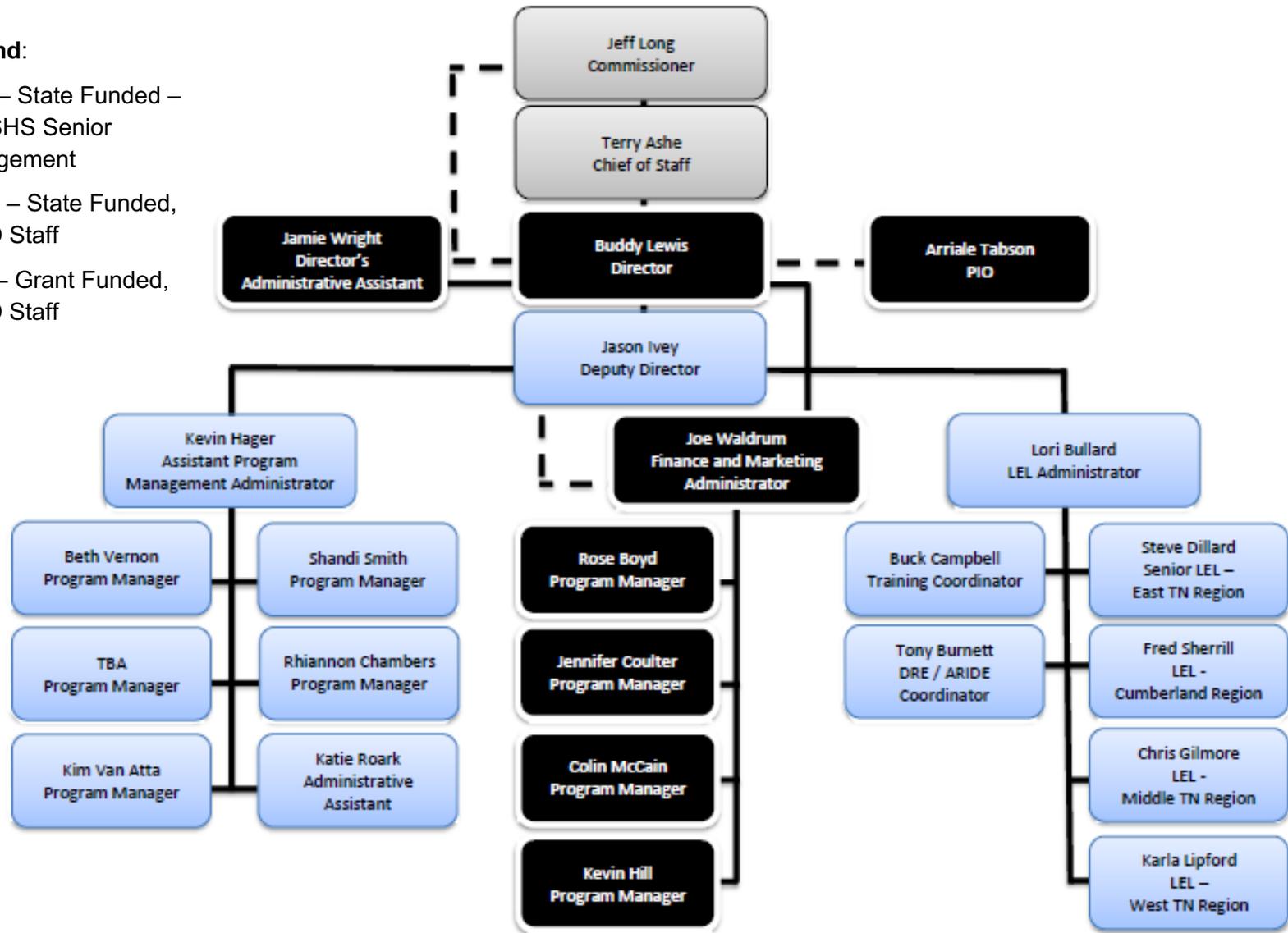
Tennessee Highway Safety Office Organizational Chart

Legend:

Gray – State Funded – TDOSHS Senior Management

Black – State Funded, THSO Staff

Blue – Grant Funded, THSO Staff



Planned Activities

Planned Activities in the program area

Unique Identifier	Planned Activity Name
PA-21-00	Planning and Administration
UT-21-00	UT Program Administration

Planned Activity: Planning and Administration

Planned activity number: **PA-21-00**

Planned Activity Description

Planning and administration funds provide the staff and resources to implement and manage highway safety programs to meet the goals and objectives of the highway safety office to reduce crashes, injuries, and fatalities on Tennessee roadways. Further, staff identify their highway safety problems using data, evaluate safety programs and activities, and provide technical assistance and training to grantees across the state. The commissioner of the TDOSHS serves as the designated governor's highway safety representative, while the director of the THSO fulfills the role of the state's coordinator of activity. The THSO employs a planning and administration staff of eight full-time state employees.

Intended Subrecipients

The intended subrecipient will be the State of Tennessee. The state will provide a 50 percent match of these funds.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Planning and Administration (FAST)	\$400,000.00	\$400,000.00	\$0.00

Planned Activity: UT Program Administration

Planned activity number: **UT-21-00**

Planned Activity Description

Planning and administration funds provide the staff and resources to implement and manage highway safety programs to meet the goals and objectives of the highway safety office to reduce crashes, injuries, and fatalities on Tennessee roadways. Further, staff identify their highway safety problems using data, evaluate safety programs and activities, and provide technical assistance and training to grantees across the state. The THSO employs eight full-time positions funded by the University of Tennessee grant.

Intended Subrecipients

The intended subrecipient of this planned activity will be the University of Tennessee, Knoxville.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	154 Transfer Funds-AL	154 Alcohol	\$300,000.00		\$0.00
2020	FAST Act 405d Impaired Driving Mid	405d Mid Other Based on Problem ID (FAST)	\$200,000.00	\$40,000.00	
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	\$700,000.00	\$140,000.00	\$0.00

Program Area: Police Traffic Services

Description of Highway Safety Problems

Police Traffic Services program grants are highly effective in reducing traffic-related injuries and fatalities through prevention efforts, public information and education, selective enforcement countermeasures, and use of the community's public or private resources to identify and address all of its significant traffic safety problems. These comprehensive programs achieve a significant and long-lasting impact in reducing fatal and injury crashes. To maximize program effectiveness, law enforcement agencies must organize an effective community-based program by involving public agencies, private sector organizations, and private citizens.

Major police traffic services grants include the following:

- Enforcement of traffic laws;
- Training in traffic enforcement skills;
- Crash and injury prevention activities such as leadership and outreach in communities to encourage seat belt and child safety seat use, use of helmets, and use of protective gear; and
- Support for community-based efforts to address impaired driving, occupant protection, speed violations, distracted driving, aggressive drivers, and other unsafe driving behaviors.

Grants will be awarded in the following areas:

- Targeted Traffic Law Enforcement (multiple violations),
- Program Administration (LEL Program),
- Network Coordinator Program,
- High Visibility Enforcement,
- Distracted Driving Enforcement (see Distracted Driving section),
- Specialized Motorcycle Safety Enforcement,
- Emergency Medical Services (see Emergency Medical Services section), and
- Training Program (see Training section).

Targeted Traffic Law Enforcement (multiple violations)

Aggressive Driving

Aggressive drivers are high-risk drivers. They are more likely to drink and drive, speed, or drive unbelted even when not being aggressive. They often behave as though their vehicle provides anonymity, allowing them to take out driving (and non-driving related) frustrations on others. Their frustration levels are high, and their concern for other motorists is low; they consider vehicles as objects and fail to consider the human element involved. Roadway congestion is a major contributing factor to driver frustration and a trigger to aggressive driving behaviors.

Aggressive driving is generally considered to consist of combinations of several high-risk behaviors, which, taken individually, do not represent aggression. These behaviors include the following:

- Disregarding traffic signs and signals,
- Following too closely or tailgating,
- Erratic and improper passing,
- Improperly signaling lane changes,
- Disobeying red lights and flashing lights,
- Reckless, careless, or inattentive driving, and
- Driving with a suspended license.

Speeding

NHTSA considers a crash to be speeding-related if the driver was charged with a speeding-related offense or if a police officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash (Traffic Safety Facts). Nationally, there were 9,378 fatalities that occurred in speeding-related crashes in 2018, a six percent increase from 2017. Further, 31 percent of 15- to 20-year-old and 21-24-year old male drivers involved in fatal crashes in 2018 were speeding at the time, the highest among the age groups represented.

The following table shows fatalities caused by speed in Tennessee.

Tennessee Speeding Related Fatalities

	2014	2015	2016	2017	2018
Total Fatalities	963	962	1,037	1,024	1,041
Speeding Related Fatalities	220	189	183	170	167

Source:

2014 - 2018 data, NHTSA. State Traffic Safety Information. Online at <https://cdan.nhtsa.gov/stsi.htm#>, accessed 19 May 2020.

After 2018, TN Dept. of Safety and Homeland Security, TITAN Business Unit, 19 May 2020. (FTS)

Law Enforcement Liaison (LEL) Program

The LEL program provides short and long-term planning, along with management practices from the Police Traffic Services program in Tennessee. The program includes an LEL Administrator that supervises the LEL program and reports directly to the deputy director of the highway safety office. There are four LELs located regionally throughout the state, along with a Statewide Training Coordinator and a Statewide DRE and ARIDE Training Coordinator. One of the regional LELs also serves as the Senior LEL. The THSO offers a wide range of traffic safety training to law enforcement officers and other traffic safety advocates and stakeholders. The program provides coordination for all major campaigns funded by federal, state, and local resources. Each LEL and the training coordinators have a training responsibility related to highway safety

enforcement and/or prevention. The program also assists grantee agencies in meeting their goals within highway safety and maintains a communication link between the agencies and program managers within the THSO.

The regional LELs conduct network meetings within their respective regions to communicate trends, progress, and other information related to highway safety. Network coordinators (see the following section) assist their LELs with this endeavor. LELs and network coordinators regularly emphasize the importance of enforcement countermeasures during network meetings as a way of encouraging them to be a part of the agency's culture. Strategies discussed include stationary patrols, mobile patrols, high visibility enforcement, corridor safety programs, and neighborhood speed watch. Those strategies and implementation of the proposed projects will increase driver awareness regarding certain behaviors, leading to a reduction in the number of fatalities, injuries, and crashes on Tennessee roads.

Network Coordinator Program

The local area network coordinators are called upon to make a major investment of time and effort. Contacting and following up with network members, recruiting support and new members in the communities, planning meetings, recruiting speakers for pertinent programs, and coordinating THSO initiatives all require an extensive time commitment on the part of the network coordinator. Network coordinators have several responsibilities:

- Provide assistance to the regional LEL as required;
- Participate in the national/state campaigns as directed by the THSO;
- Solicit network agencies to participate in national campaigns;
- Conduct monthly/quarterly network meetings;
- Participate in THSO-sponsored press events;
- Participate in THSO training events (to be available as an instructor if qualified);
- Personally contact each chief of police and sheriff or representative in the local area network in order to explain the THSO campaigns and solicit agency participation;
- Serve as data collectors for law enforcement statistics for each THSO campaign;
- Attend THSO meetings as directed;
- Attend at least one regional LEL meeting during the grant period; and
- Other duties as may be assigned by the THSO / LEL.

Network meetings provide a venue for law enforcement professionals to receive training and learn about new initiatives and best practices. Network coordinators will continue to assist agencies with daily operations and provide technical assistance when needed.

The networks will continue to strengthen highway safety partnerships and encourage participation in enforcement campaigns to decrease the number of crashes, injuries, and fatalities on Tennessee's roadways.

High Visibility Enforcement (HVE)

HVE combines law enforcement, visibility elements, and a publicity strategy to educate the public and promote voluntary compliance with the law. Checkpoints, saturation patrols, roving patrols, and other HVE strategies enable these efforts to be successful. Measured outcomes included increased publicity and written warnings to the public.

The HVE concept is a departure from traditional law enforcement traffic enforcement tactics. HVE incorporates enforcement strategies, such as enhanced patrols using visibility elements (e.g., electronic message boards, road signs, command posts, mobile sobriety checkpoint operations, etc.) designed to make enforcement efforts obvious to the public. It is supported by a coordinated communication strategy and publicity. HVE may also be enhanced through multi-jurisdictional efforts and partnerships between people and organizations dedicated to the traffic safety of their community.

This is a one-year grant award of approximately \$5,000. Agencies that receive a programmatic grant are typically ineligible to receive the HVE grant.

High visibility enforcement should be conducted in locations that are chosen based on data. Enforcement should be in areas that are easily visible to the motoring public and indicate specific enforcement need due to crashes or crime. Using geo-mapping to identify “hot spots” – areas of a high incidence of crimes and crashes – helps target locations where law enforcement can play two roles: deter criminal activity and reduce crashes.

Choosing a location that is a high-volume traffic area will assist with the visibility of enforcement efforts; people will see officers enforcing traffic laws. This helps create general deterrence and voluntary compliance with laws.

Enforcement activities can include, but are not limited to, the following:

- Saturation Patrols - Increased officers conducting enforcement in a targeted area to gain voluntary compliance of traffic laws and create general deterrence to prevent traffic violations. *Note: increased enforcement must be visible to the motoring public; they need to see officers making traffic stops.*
- DUI Checkpoints - One purpose of a DUI checkpoint is to increase the perceived risk of detection and arrest for individuals who might otherwise decide to engage in unsafe driving behavior. This is a checkpoint’s general deterrence effect. The fact that all, or a proportion of, vehicles are stopped reduces the impaired driver’s confidence that he/she can avoid detection by concealing or compensating for alcohol or drug impairment.
- Wave Enforcement - Includes increased enforcement of a specific traffic violation in a targeted location for a short period of time that occurs periodically. Wave enforcements should coordinate with specialized campaigns such as Booze It and Lose It and NHTSA’s Drive Sober or Get Pulled Over.
- Multi-Jurisdictional - The multi-jurisdictional approach is a critical countermeasure in traffic safety. By having more participating agencies, a greater police presence is created, which in turn creates general deterrence because it increases the risk (or perceived risk) that the motoring public will be caught. The enforcement must be highly visible and include an equal balance of enforcement and publicity.

Distracted Driving Enforcement

Distracted driving occurs when a driver's attention is diverted from driving. According to *Countermeasures That Work, Ninth Edition*, "Two in five drivers (42.3%) admitted to reading text messages while driving in the past 30 days, and nearly one-third (31.5%) has sent text messages." In order to combat distracted driving in Tennessee, a hands-free law was adopted, which makes it illegal for a driver to hold a cellphone or mobile device with any part of their body. This will make enforcement easier and Tennessee's roadways safer. For more information about distracted driving in Tennessee, along with funding for this project, see the distracted driving section.

Specialized Motorcycle Safety Enforcement

The THSO, utilizing TITAN data, determined that the State of Tennessee had a targeted problem with motorcycle fatalities and crashes. A pilot program was initiated in 2019. Data was used to determine the counties, as well as local agencies, that would benefit the greatest from this initiative. A three-year data set was utilized to determine the locations, as well as the most effective months, for targeted, specialized enforcement to occur. May, June, August, and September averaged out to be the most extensive months where the state saw both crashes and fatalities occurring for motorcycles.

Note, these grants are for motorcycle safety, which means that it does not only focus on motorcyclists that perform risky behaviors, but also focuses on motorists that endanger motorcyclists.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2020	C-1) Number of Traffic Fatalities (FARS)	2021	5-Year	1,078.8
2020	C-2) Number of Serious Injuries in Traffic Crashes (state crash data files)	2021	5-Year	6,227.1
2020	C-3) Fatalities/VMT (FARS, FHWA)	2021	5-Year	1.355
2020	C-6) Number of Speeding-Related Fatalities (FARS)	2021	5-Year	149.00

Countermeasures and Planned Activities

Countermeasure Strategy: Enforcement

Program Area: **Police Traffic Services**

Project Safety Impacts

Police traffic services program grants are highly effective in reducing traffic-related injuries and fatalities through prevention efforts, public information and education, selective enforcement countermeasures, and use of the community's public or private resources to identify and address all of its significant traffic safety problems. These comprehensive programs achieve a significant and long-lasting impact in reducing fatal and injury crashes. To maximize program effectiveness,

law enforcement agencies must organize an effective community-based program by involving public agencies, private sector organizations, and private citizens.

Police traffic services include the following:

- Enforcement of traffic laws;
- Training in traffic enforcement skills;
- Crash and injury prevention activities such as leadership and outreach in communities to encourage seat belt and child safety seat use, use of helmets, and use of protective gear; and
- Support for community-based efforts to address impaired driving, occupant protection, speed violations, distracted driving, aggressive drivers, and other unsafe driving behaviors.

HVE combines law enforcement, visibility elements, and a publicity strategy to educate the public and promote voluntary compliance with the law. Checkpoints, saturation patrols, roving patrols, and other HVE strategies enable these efforts to be successful. Measured outcomes included increased publicity and written warnings to the public.

Linkage Between Program Area

The police traffic services program focuses on support for community-based efforts to address impaired driving, occupant protection, work zone safety, speed violations, distracted driving, aggressive driving, motorcycle safety, and other unsafe driving behaviors. The grants are highly effective in reducing traffic crashes through selective enforcement and education. The HVE concept is a departure from traditional law enforcement traffic enforcement tactics. HVE incorporates enforcement strategies, such as enhanced patrols using visibility elements (e.g., electronic message boards, road signs, command posts, mobile sobriety checkpoint operations, etc.) designed to make enforcement efforts evident to the public. It is supported by a coordinated communication strategy and publicity. HVE may also be enhanced through multi-jurisdictional efforts and partnerships between people and organizations dedicated to the traffic safety of their community.

Rationale

Targeted traffic law enforcement has been shown to be effective. According to NHTSA's *Countermeasures That Work, Ninth Edition*, deterrence through law enforcement is the basic behavioral strategy that has been used to control speeding and aggressive driving actions. Consequently, specialized enforcement projects such as speed enforcement waves, aggressive driving patrols, impaired driving saturation patrols, and the like may contribute to the public's awareness of specific types of unsafe driver behaviors at the same time that the presence of traffic patrols serves as a general deterrent to the wide variety of undesirable behaviors that are not being targeted. For instance, detecting a law enforcement presence is oftentimes enough for a driver to ease off the vehicle's accelerator.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PT-21-00	Enforcement

Planned Activity: Enforcement

Planned activity number: **PT-21-00**

Planned Activity Description

The planned activity is to fund police traffic services safety projects, including high visibility enforcement of traffic laws. Funding can be used for overtime and equipment to help state and local law enforcement sustain traffic enforcement efforts. Funding will be based on the following criteria:

- County ranking in overall crash rates provided by the Tennessee Department of Safety & Homeland Security,
- Population served by the agency and agency size,
- Number of qualifying applicants for each level of funding, and
- THSO funding availability.

Intended Subrecipients

The intended subrecipients will be determined after all application reviews and data analysis has been completed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	\$2,418,466.02	\$483,693.20	\$2,418,466.02
2020	154 Transfer Funds-AL	154 Alcohol	\$590,000.00		\$590,000.00

Major Purchases and Dispositions

Equipment with a useful life of more than one year and an acquisition cost of \$5,000 or more

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Radar Customization Message Sign	1	\$9,200.00	\$9,200.00	\$9,200.00	\$9,200.00
Lidar with Video and Tri-pod	1	\$6,017.00	\$6,017.00	\$6,017.00	\$6,017.00
7 x 12 V-Nose Enclosed Trailer	1	\$5,500.00	\$5,500.00	\$5,500.00	\$5,500.00
Nova-Lite with Generator	2	\$5,219.95	\$10,439.90	\$5,219.95	\$10,439.90
Radar Trailer	1	\$16,604.00	\$16,604.00	\$16,604.00	\$16,604.00
Radar Units	1	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00
In-car Video	1	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
Speed trailer with Solar Panels and Data Collection	1	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00
Speed Alert Trailers	2	\$7,690.00	\$15,380.00	\$7,690.00	\$15,380.00

Countermeasure Strategy: LEL Program

Program Area: **LEL-21-00**

Project Safety Impacts

Networks are the foundation of the LEL program to garner participation in national and state campaigns. Each LEL is required to conduct network meetings regularly in their respective regions. Each of these meetings provides a clearinghouse for all communications related to highway safety. Also, each county is reviewed concerning its fatality and injury trends using data provided by TITAN, and strategies are discussed for proper and specific intervention. The LELs also facilitate the collaboration of multiple jurisdictional enforcement activities to include media activity and addressing problems to the public.

Linkage Between Program Area

The LEL program encourages widespread participation in national and state traffic safety campaigns. Increased traffic enforcement positively impacts driver awareness and behavior on the roads. This program administers the police traffic services program, including project development and implementation, training development, and coordination of special projects. It promotes law enforcement technology, resources, and tools; participation in conferences; conducts training; and is involved with various highway safety subcommittees. Additionally, responsibilities include promoting traffic enforcement strategies and related best practice policies with state and local law enforcement to strengthen the THSO's mission and make the roadways safer.

Rationale

The program enhances communications between law enforcement agencies. It allows for greater coordination of regional and statewide enforcement activities. Along with this, it also allows agencies to share best practices along with policies and programs that have positive effects on traffic safety.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
LEL-21-00	LEL Program

Planned Activity: LEL Program

Planned activity number: **LEL-21-00**

Planned Activity Description

The LEL program provides short-term and long-term planning, along with management practices from the Police Traffic Services program in Tennessee. The program utilizes four LELs, inclusive of a Senior LEL, located regionally throughout the state along with a Statewide Training Coordinator, a Statewide DRE/ARIDE Training Coordinator, and an LEL Administrator. The THSO offers a wide range of traffic safety training to law enforcement officers and other traffic safety advocates and stakeholders. The program provides coordination for all major campaigns funded by federal, state, and local resources including, but not limited to, the Holiday Impaired Driving Campaign, the Memorial Day Click It or Ticket Campaign, and the Labor Day Booze It or Lose It Campaign. The Statewide Training Coordinator, Statewide DRE and ARIDE Training Coordinator, and each regional LEL have training responsibilities related to highway safety enforcement and prevention:

- SFST,
- ARIDE,
- DRE,
- Law Enforcement Challenge Program,
- Other law enforcement trainings,
- Child passenger safety,
- “Below 100” instructors,
- Southern Shield, and
- Operation Hands Free

The LELs conduct network meetings within their respective regions to convey trends, progress, and other highway safety-related information to law enforcement and other highway safety advocates across the state. The program also assists grantee agencies in meeting their goals within highway safety and maintains a communication link between the agencies and program managers within the THSO.

Intended Subrecipients

The intended subrecipient of this planned activity is The University of Tennessee, Knoxville.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	154 Transfer Funds-AL	154 Alcohol	\$300,000.00		\$0.00

Major Purchases and Dispositions

Equipment with a useful life of more than one year and an acquisition cost of \$5,000 or more

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Vehicle	1.00	\$43,000.00	\$43,000.00	\$43,000.00	\$43,000.00

Countermeasure Strategy: Network Coordinator

Program Area: **Police Traffic Services**

Project Safety Impacts

To strengthen state safety initiatives on the local level and to achieve community support for them, the LELs in Tennessee established 18 law enforcement networks across the state. These networks are made up of 22 law enforcement officers from agencies in groups of adjacent counties who hold regular meetings to discuss safety initiatives in their areas.

Linkage Between Program Area

By bolstering, strengthening, and encouraging the growth of the law enforcement networks currently in place, the network program significantly encourages and strengthens response to the THSO's highway safety programs. Network meetings serve as an important tool in training area law enforcement officials to implement the safety programs. In addition, the increased cooperation and communication among neighboring communities benefit the counties, the networks, and the state.

Rationale

The networks will continue to strengthen highway safety partnerships and encourage participation in enforcement campaigns to decrease the number of crashes, injuries, and fatalities on Tennessee's roads.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC-21-00	Network Coordinator

Planned Activity: Network Coordinator

Planned activity number: **NC-21-00**

Planned Activity Description

To strengthen state safety initiatives on the local level and to achieve community support for them, the LELs in Tennessee established 18 law enforcement networks across the state. These networks are made up of 21 law enforcement officers from agencies in groups of adjacent counties who hold regular meetings to discuss safety initiatives in their areas.

Intended Subrecipients

The following agencies are intended to receive funding for this planned activity:

- Belle Meade Police Department
- Benton Police Department
- Blount County Sheriff's Department
- Brownsville Police Department
- Cocke County Sheriff's Department
- Cookeville Police Department
- Greene County Sheriff's Department
- Kimball Police Department
- Kingsport Police Department
- Lexington Police Department
- Madison County Sheriff's Department
- Memphis Police Department
- Metro Moore County Sheriff's Department
- Oak Ridge Police Department
- Rhea County Sheriff's Department
- Rutherford County Sheriff's Department
- Shelby County Sheriff's Office
- Soddy-Daisy Police Department
- Union City Police Department
- Wayne County Sheriff's Office
- White House Police Department

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	\$420,000.00	\$84,000.00	\$420,000.00

Countermeasure Strategy: Specialized Motorcycle Safety Enforcement

Program Area: **Police Traffic Services**

Project Safety Impacts

In 2018, 168 motorcycle fatalities occurred on Tennessee roadways. Along with these fatalities, a total of 3,059 motorcycle crashes and 2,112 people were injured. To combat this problem, the THSO will provide grant funding for specialized motorcycle enforcement that will be conducted in jurisdictions identified through data analysis as having a high occurrence of fatal and serious injury motorcycle crashes. Through data from TITAN, it was found that the state sees a majority of motorcycle crashes occurring during the summer months (May-September), specifically during the weekends. This is an opportunity for the THSO to utilize selective, targeted enforcement to truly focus on the counties in which motorcycle crashes are occurring. Along with this targeted

enforcement campaign and the media campaigns (both paid and earned), the THSO training program will host classes for motorcycle safety and enforcement.

Linkage Between Program Area

Targeting the areas that data has shown to be a "hot spot" for motorcycle crashes and fatalities, the THSO will be able to make the roadways safer for both motorists and motorcyclists alike. By adding in a paid and earned media component to educate the general public about motorcycle operators, this will educate everyone on the roadways about the vulnerability of motorcyclists.

Rationale

The State of Tennessee utilizes many strategies to decrease the number of motorcycle fatalities and serious injuries on our roadways. For this countermeasure, the following is utilized from NHTSA's *Countermeasures That Work, Ninth Edition*:

- 1.3 Motorcycle Helmet Law Enforcement: Noncompliant Helmets
- 4.2 Communications and Outreach: Motorist Awareness of Motorcyclists

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
MC-21-00	Specialized Motorcycle Safety Enforcement

Planned Activity: Specialized Motorcycle Safety Enforcement

Planned activity number: **MC-21-00**

Planned Activity Description

The planned activity is to fund no more than eight local law enforcement agencies for specialized motorcycle enforcement projects that will reduce fatalities and injuries through targeted enforcement efforts.

Intended Subrecipients

Funding for FFY 2021 will be determined at a later date once data from previous years can be analyzed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	\$100,000.00	\$20,000.00	\$100,000.00

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Description of Highway Safety Problems

Occupant protection (OP) refers to the use of seat belts and child safety seats in vehicles. Seat belt use is the most effective way to save lives and reduce injuries in crashes. However, NHTSA indicated in the publication *Traffic Safety Facts Key Findings, 2018*, “Forty-eight percent of passenger vehicle occupants who were killed in traffic crashes in 2016 were unrestrained”. In 2018, 299 unrestrained fatalities out of a recorded 706 occurred on Tennessee’s roadways.

Yet millions of adults still do not wear their seat belts every time on every trip. Of additional and arguably more significant concern is the use, or lack thereof, of child restraint seats, as this population cannot belt themselves, nor advocate on their own behalf. Ultimately, the continuation of OP education and resources will decrease the childhood injury rate due to the non-use or misuse of child seat restraints in vehicles as well as decrease fatal crash rates throughout the nation. Most importantly, as states continue to enact primary seat belt enforcement laws, the seat belt usage rate could successfully reach the 100 percent national goal.

The following table shows Tennessee’s seat belt use and compares it to the nation’s usage.

Percent Restraint Use: Observed Overall and Among Fatally Injured Passenger Vehicle Occupants

Observed Restraint Use (State Survey)					
	2014	2015	2016	2017	2018
Tennessee	88%	86%	89%	89%	91%
USA	87%	89%	90%	90%	90%
Daytime Front Seat (Outboard Only) Passenger Vehicle Occupant Fatality Aged 5 and Over, by Percent Restraint Use					
	2014	2015	2016	2017	2018
Tennessee	53%	57%	59%	61%	60%
USA	61%	62%	61%	61%	62%

Source:

2014 - 2018, NHTSA. *State Traffic Safety Information*. Online at <https://cdan.nhtsa.gov/stsi.htm#>, accessed 01 Jun 2020.

After 2018, Center for Transportation Research. *Annual Surveys of Safety Belt and Motorcycle Helmet Usage*. Knoxville, TN: University of Tennessee, 2003 - 2019.

Since 2008, the THSO has participated in NHTSA’s Click it or Ticket safety campaign. In addition to Click it or Ticket, the THP, in conjunction with the THSO, conducted safety enforcement campaigns entitled One Hundred Days of Summer Heat. While the One Hundred Days of Summer Heat effort targets speeding and impaired drivers, it does complement the Click it or Ticket program by providing high visibility traffic enforcement across the state.

The following table depicts Tennessee seat belt usage rates for passenger cars, pickup trucks, vans, sport utility vehicles, and all vehicles for years 2013-2018.

Tennessee Seat Belt Usage Rates

	2014	2015	2016	2017	2018
Passenger Cars	90.3%	87.8%	91.4%	91.2%	93.5%
Pickup Trucks	79.1%	78.3%	81.8%	81.3%	84.2%
Vans	91.2%	86.4%	90.4%	89.4%	93.5%
Sport Utility Vehicles	90.3%	90.6%	92.5%	91.0%	93.4%
All Vehicles	87.7%	86.2%	89.0%	88.5%	90.9%

Source: Center for Transportation Research. Annual Surveys of Safety Belt and Motorcycle Helmet Usage. Knoxville, TN: University of Tennessee, 2003 - 2019.

The lowest percent of seat belt users were observed to be in the pickup truck category; however, there was an increase in this category, from 79.1 percent in 2014 to 84.2 percent in 2018. While the seat belt usage rate for pickup truck drivers remains lower than other classes of vehicles, the trend leads us to believe that through enforcement and education, behavior change has occurred among pickup truck drivers.

CPS is another essential component of occupant protection. NHTSA's *Countermeasures That Work, Ninth Edition*, states, "Abundant research has shown that correctly using an appropriate child restraint or seat belt is the single most effective way to save lives and reduce injuries in crashes. Lap and shoulder combination seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%." While Tennessee's child passenger restraint laws requiring a car seat or booster seat use for children ages eight and under have resulted in more children being buckled up, more education is required

The TNTrafficSafety Resource Service CPS Checkpoint Report from October 1, 2018 – September 30, 2019, indicates a misuse rate of 83 percent in the State of Tennessee. While this is an improvement from 95 percent in 2004, this misuse rate is higher than the national average and is a concerning constant. In FFY 2021, The TN Traffic Safety Resource Service will expand the data collection tool to include misuse categories to gain a better understanding of actual misuse and identify strategies to improve education to caregivers to promote best practice and compliance with car seat manufacturer installation and use instructions. The following is a summary of the report.

TNTrafficSafety Resource Service CPS Checkpoint Report from October 1, 2018 – September 30, 2019	
Number of check-up events	285
Number of new seat installations	775
Number of unsafe seats	226
Number of seats distributed	428
Number of unrestrained children	226
Number of seats checked	2,565
Number of seats misused	2,118
Number of seats used correctly	397

NOTE: Only children under 4 years old are required per T.C.A. 55-9-603 to use a child safety seat. When you restrict the data to this subset of occupants, the variable exhibits highly random characteristics, because the number of fatalities under age four is extremely low, and of course, the number using the child restraint devices is even lower. The 3- and 5- year moving averages have remained near 50 percent since 2004, and the variance in the data is very high (Std. Error +/- 20 percent).

NOTE: Tennessee's Child Restraint law T.C.A. 55-9-602 ss55-9-603 requires children through age eight and measuring less than four feet, nine inches in height require the use of a belt-positioning booster seat system meeting fmvss213 standards.

Much work remains, and the occupant protection work in FFY 2021 will include children, teens, and older adult drivers.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2020	C-4) Number of Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (FARS)	2021	3-Year	263.00
2020	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	2021	Annual	92.25

Countermeasures and Planned Activities

Countermeasure Strategy: Education, Communication, and Training

Program Area: **Occupant Protection (Adult and Child Passenger Safety)**

Project Safety Impacts

The THSO works with NHTSA to implement programs focusing on occupant protection.

The following table shows the number of child restraint inspection stations, the county in which the inspection station is located, whether the population is urban or rural, and if the inspection station is within at-risk communities.

Child Restraint Inspection Stations and At-Risk Populations FFY 2020 - 2021

Certified CPS	Agency	County	Population Served	Above Average Poverty	African American	Latino
Staffed	Clinton Fire Dept.	Anderson	U	P		
Staffed	Anderson County Sheriff's Office	Anderson	U	P		
Staffed	Norris Police Dept.	Anderson	U	P		
Staffed	Oak Ridge Fire Dept.	Anderson	U	P		
Lt. Shannah Newman	Oak Ridge Police Dept.	Anderson	U	P		
Staffed	Joyner Fire Dept.	Anderson	U	P		
Staffed	Rocky Top Police Dept.	Anderson	U	P		
Brock Horner	Shelbyville Police Department	Bedford	R	P		
Holly Hatcher	Alcoa Police Department	Blount	U			
Staffed	Alcoa Fire Dept.	Blount	U			
Tim Ogle	Blount County Fire Dept. Station 2	Blount	U			
Staffed	Blount County Sheriff's Office	Blount	U			
Staffed	Maryville Fire Dept.	Blount	U			
Daniel Marlow	Bradley County Sheriff's Office	Bradley	U	P		
Jennifer Samples	Cleveland Police Department	Bradley	U	P		
Staffed	Campbell County Sheriff's Office	Campbell	R	P		
Staffed	LaFollette Police Dept.	Campbell	R	P		
Eric Campbell	Mooretown Vol. Fire Department	Cannon	R			
Eric Campbell	Cannon County Fire Department	Cannon	R			
Chris Adams	Carroll County Sheriff's Office	Carroll	R	P		
Angie Barker	Huntingdon Police Department	Carroll	R	P		
Tracey Knack	Ashland City Fire Department	Cheatham	R	P		
Mark Stone	Pleasant View Volunteer Fire Department	Cheatham	R	P		
Staffed	Newport Police Dept	Cocke	R	P		

Michael Whitmer	Cocke County Sheriff's Department	Cocke	R	P		
Chris Patterson, Dale Robertson	Manchester Police Department	Coffee	U	P		
Sgt. Phil Henderson	Tullahoma Police Department	Coffee	U	P		
Donnie King	Bells Police Department	Crockett	R			L
Matthew Berry	Crockett County Sheriff Department	Crockett	R			L
Shelly Brown	Cumberland County Sheriff's Department	Cumberland	R	P		
Chuck Williams, Keith Samol, and Wes Bowker	Belle Meade Police Department	Davidson	U	P	A	L
Zach Waters	Metro Nashville Police Department	Davidson	U	P	A	L
Destini Burns	Metro Nashville Public School-Community Achieves	Davidson	U	P	A	L
Ryan Storm	Midtown Hills Community Engagement Team	Davidson	U	P	A	L
Jennifer Caruthers	Dickson County Sheriff's Office	Dickson	R	P		
Julia Holt	Dickson Fire Department	Dickson	R	P		
Lt. David Cole	Dickson Police Department	Dickson	R	P		
Heather Defoe	Dyersburg Police Department	Dyer	R	P		
Shannon Powell	Life Choices Dyersburg	Dyer	R	P		
J. Michaels and Jacob Jenkins	Fayette County Sheriff's Department	Fayette	R	P	A	
Gus Salto	Somerville Police Department	Fayette	R	P	A	
William Duncan	Fentress County Sheriff's Office	Fentress	R			
SGT Joshua Bomer	Humboldt Police Department	Gibson	U		A	

Miranda Rogers/ Scruggs	Grainger County Ambulance Authority	Grainger	R	P		
Staffed	Grainger County Rescue Squad	Grainger	R	P		
Deputy Carolyn Crabtree	Sullivan County Sheriff's Office	Grainger	R	P		
Staffed	Greene County Sheriff's Office	Greene	R	P		
Staffed	Morristown Fire Dept	Hamblen				
Staffed	Morristown Police Dept.	Hamblen				
Alexis Edwards	Hamilton County Health Dept.	Hamilton	U	P	A	
Becky Campbell	Safe Journey- Hamilton County Sheriff's Office	Hamilton	U	P	A	
Chris Wilkerson	Bolivar Police Department	Hardeman	R		A	
Eddie Henson	Bolivar Police Department	Hardeman	R		A	
Michael Pitts	Savannah Police Department	Hardin	R	P		
Brian Gibbs	Hardin County Emergency Communications	Hardin	R	P		
Vicki Spears	Hardin County Sheriff Department	Hardin	R	P		
Staffed	Brownsville Police Department	Haywood	U	P	A	
Jeff Middleton	Lexington Police Department	Henderson	R	P		
Staffed	Jefferson City Fire Department	Jefferson				
Darrell Turley	Jefferson City Police Department	Jefferson				
Staffed	Tennessee Highway Patrol- District 1	Knox	U	P		
Alexis Keiser	SafeKids of Greater Knox Area/ET Children's Hospital	Knox	U	P		
Stephen Spoon and Kevin Abercrombie	Lenoir City Fire Department	Loudon	U		A	L
Staffed	Lenoir City Police Department	Loudon	U		A	L

Staffed	Loudon County Sheriff's Office	Loudon	U		A	L
Staffed	Loudon County Fire and Rescue	Loudon	U		A	L
Jeremy Richter	SAFEDAWG	Macon	R	P		
Ashley DeLoach	West Tennessee Healthcare	Madison	U	P	A	
Katherine Cothorn	Southwest Tennessee Child Care Resource and Referral Agency	Madison	U	P	A	
Jeremy Smith	University of Memphis Lambuth Police	Madison	U	P	A	
Kenneth Stone	Jackson Police Department	Madison	U	P	A	
Farah Morrison	Marion County Health Department	Marion	R	P		
John Compton	Chapel Hill Police Department	Marshall	R			
Captian Donnie Knoepfel	Columbia Fire Department	Maury	U			L
Jenny Frost	Mount Pleasant Police Department	Maury	U			L
John Tallent	Madisonville Fire Dept.	Monroe	R	P		
Staffed	Monroe County Sheriff's Dept.	Monroe	R	P		
Jessica Ferrell	Center for Family Development	Montgomery	U		A	L
Jimmy Brown and Denis Bowles II	Montgomery Co. Sheriff's Office	Montgomery	U		A	L
Lisa McClain	Montgomery County Driver Safety	Montgomery	U		A	L
Staffed	Coalfield Fire Dept.	Morgan	R			
Scott Duncan	Union City Police Department	Obion	R			
Dylan Ashlock	Overton County Sheriff Department	Overton	R	P		
Staffed	Pickett County Sheriff's Office	Pickett	R	P		
Malissa Davis; Katrina Bazzell	Polk County Health Dept.	Polk	R			
Sgt. Teeters; Lt. Johnson	Cookeville Police Department	Putnam	U	P		L

Leah Thomas	Putnam County Emergency Medical Services	Putnam	U	P		L
Elena Neff	Algood Police Department	Putnam	U	P		L
Staffed	Harriman Fire Dept.	Roane	U	P		
Staffed	Rockwood Police Dept.	Roane	U	P		
Lt. Karen Joseph	Harriman Police Dept.	Roane	U	P		
David King	Robertson County EMS	Robertson	R			L
David King	Coopertown Police Department	Robertson	R			L
Sheree Robertson	La Vergne Police Department	Rutherford	U			L
Don Fanning	Murfreesboro Police Department	Rutherford	U			L
Jimmy Cassidy/Raym ond Shew	Rutherford County Sherriff's Office	Rutherford	U			L
Staffed	Oneida Police Dept.	Scott County	R			
Farrah Morrison	Sequatchie County Health Department	Sequatchie	R	P		
Jackie Clark	Seymour Fire Department	Sevier	R	P		L
Donnie Mashburn	Pigeon Forge Police Department	Sevier	R	P		L
Staffed	Pigeon Forge Fire Department	Sevier	R	P		L
Staffed	Pittman Center Police Dept.	Sevier	R	P		L
Staffed	Sevierville Fire Department	Sevier	R	P		L
Staffed	Sevier County Sheriff's Office	Sevier	R	P		L
Rebecca Cowan	Sevierville Police Department	Sevier	R	P		L
Kristi Davis	Baptist Memorial Hospital for Women	Shelby	U	P	A	L
Matt Robinson	Bartlett Police Department	Shelby	U	P	A	L
Susan Helms	Le Bonheur Children's Hospital	Shelby	U	P	A	L
Sheperd Taylor	Collierville Police Department	Shelby	U	P	A	L
Staffed	Germantown Police Department	Shelby	U	P	A	L

April Colbert	Memphis Police Department - Airways Station	Shelby	U	P	A	L
LeCharra Yarbrough	Memphis Police Department - Tillman Station	Shelby	U	P	A	L
Chester Aldridge and Ruth Horne	Memphis Police Department - Traffic Station	Shelby	U	P	A	L
Lester Haynes	Shelby County Sheriff's Office (Crime Prevention)	Shelby	U	P	A	L
Staffed	Bluff City Police Dept.	Sullivan	U	P		
Samuel Jones	Bristol's Promise	Sullivan County	U	P		
Melissa Bullock	Department of Children Services - Mid-Cumberland	Sumner	U			
James Stinson	Gallatin Police Department	Sumner	U			
Edilberto Hernandez	Hendersonville Police Department	Sumner	U			
Tammy Weatherford	Sumner County Sheriff's Office	Sumner	U			
Mark Hall	Gallatin Fire Department	Sumner	U			
Tremaine Reed, Daniel Walls, and Tonia Bruno	Tipton County Sheriff's Office	Tipton	R	P	A	
Staffed	Union County Sheriff's Office	Union	R			
Demeatrise Givens	Best Practice	Union	U	P	A	L
Lt. Mark Mara	McMinnville Police Department	Warren	R	P		L
Mark Mara	McMinnville Fire Department #1	Warren	R	P		L
Phillip Mitchell	McMinnville Fire Department #2	Warren	R	P		L
Staffed	Warren County Sheriff's Department	Warren	R	P		L
Staffed	Washington County Sheriff's Office	Washington	U	P		
Tim Hensley	Johnson City Police Department	Washington	U	P		
Ray Stubblefield	Tennessee Highway Patrol-District 5	Washington	U	P		

Kory Green	Martin Fire Department	Weakley	R			
Chris Finch and Kory Green	Martin Police Department	Weakley	R			
Chief Kenny Dobson	White County Sheriff Department	White	R	P		
Mary Beth Lovett	Spring Hill Police Department	Williamson	U			
Jeremy Giroux, Robin Forte	Brentwood Fire & Rescue Department	Williamson	U			
Joanne Finn/Jamie Melton	Franklin Fire Department	Williamson	U			
Mark Sutton	Fairview Police Department	Williamson	U			
Dawna Gutierrez	Lebanon Police Department	Wilson	U			
Emy Bates	Wilson County Sheriff's Office	Wilson	U			

Table Legend

(R) Rural Area – Rural areas are determined by the state highway departments and approved by the Federal Highway Administration

(U) Urban Area – Urban areas are determined by the state highway departments and approved by the Federal Highway Administration

(P) Above Poverty Rate – Counties that have a poverty rate higher than the national average of 14.3 percent

(A) Counties with African American populations larger than the state average

(L) Counties with Latino/Hispanic populations larger than the state average

During the FFY 2021, the THSO anticipates hosting 24 CPS trainings to train a total of 380 CPS technicians. The THSO CPS program will conduct check-ups during the Click It or Ticket campaigns, National CPS Week, and Hands Across the Border events to distribute educational materials. The check-ups will track the following:

- The number of child safety seats checked;
- The number of child safety seats that were misused;
- The number of children who did not arrive with child safety seats; and
- The number of child safety seats that were replaced because they were deemed unsafe.

The Occupant Protection Center will promote the use of the National Digital Car Seat Check Form (NDCF), a resource provided by the National Safety Council, funded by NHTSA and certified by the National Child Passenger Safety Board. The use of the NDCF will be voluntary but encouraged to capture statewide data for car seat check activity. The NDCF provides a paper format for use in place of electronic field reporting and can be uploaded to the digital database at the site agency. This reporting tool will facilitate standardized data collection and provide better

insight into child restraint misuse. TN Traffic Safety Resource Service will still house the electronic seat check reporting form to collect summarized data for analysis.

In FFY 2021, the THSO will work on the following items for the child passenger safety program:

- Increase the use of child restraints in Tennessee;
- Collect safety data on child safety seat usage on 100 percent of participants;
- Certify technicians and maintain/recertify currently certified technicians; and
- Maintain an active coalition of fitting stations throughout the state.

To certify CPS technicians, the THSO will host classes statewide to reach all types of at-risk populations using the National Child Passenger Safety Certification Curriculum, which was updated in January 2020. These classes will be promoted through different avenues including, but not limited to, social media, email blasts, and network meetings held by regional LELs. With the recent CPS Curriculum update, the Renewal Course structure has been updated. Implementation of Renewal Courses is under consideration at this time. Efforts to maintain certified technician status will be emphasized and supported through CEU course offerings to help CPST independent maintenance and compliance with recertification requirements. These CEU resources will be promoted through the same methods, as stated above. By promoting these trainings, and maintaining the individuals who are already trained, the THSO will maintain a sufficient number of CPS technicians.

In FFY 2021, the THSO occupant protection program will work on the following items for young drivers with the teen traffic safety program:

- Create positive messages and activities geared toward teen seat belt use and safe driving habits;
- Partner with teen driver educational programs to conduct activities (e.g., Reduce TN Crashes, Battle of the Belt, Checkpoints Program, and ThinkFast) to engage teens and change teen driver behavior;
- Work with law enforcement and school resource officers across the state to provide interventions in high-risk areas of increased injuries and fatalities; and
- Collect and analyze data on teen driver injuries and fatalities.

In FFY 2021, the THSO occupant protection program will work on the following items for older drivers with the older driver traffic safety program:

- Conduct safety training activities, including CarFit;
- Develop resources and educational materials that will assist in delivering the safety message;
- Encourage and facilitate regular collaboration among agencies and organizations responsible for, or impacted by, older driver safety issues; and
- Collect and analyze data on older driver injuries and fatalities.

In FFY 2021, the THSO will conduct at least one education program quarterly for a total of at least four trainings that will target children, teens, or older drivers including:

- New technician training, renewal training, CPS workshop, or CEU for CPS technicians and/or parent/community partners.

- Offer Pre School and Elementary age education programs utilizing established intervention programs. (Ollie Otter Booster Seat & Seat Belt Education)
- Teen driver presentation and/or activity. (Reduce TN Crashes, etc.)
- Older driver CarFit activity and/or safety presentation.

Linkage Between Program Area

Occupant protection education, enforcement, and outreach work in partnership to change driver behavior. The THSO and its partnering agencies will continue to highlight NHTSA’s safety precautions to the driving public to minimize occupant protection issues in the State of Tennessee.

Implementing this countermeasure strategy will increase driver awareness, which in turn will decrease the number of fatalities, injuries, and crashes.

Further, the Occupant Protection Task Force will be diligent in completing the goals and objectives of the OP strategic plan to increase the seat belt rate as well as raise awareness of the importance of occupant protection in rural areas to help further the state’s goals in FFY 2021.

Rationale

Several components within NHTSA’s *Countermeasures That Work, Ninth Edition* are listed as effective methods to help with an occupant protection program. Tennessee utilizes the following:

- 3.1 Communications and Outreach – supporting enforcement -targeting adults
- 3.2 Communications and Outreach – strategies for low-belt-use groups -targeting adults
- 4.1 Child/Youth Occupant Restraint Laws – strengthening Child/Youth Occupant Restraint Laws
- 5.1 Child Restraint/Booster Seat Law Enforcement – Short High-Visibility CR Law Enforcement
- 6.1 Communication and outreach – strategies for older children
- 6.2 Communication and outreach – strategies for child restraint and booster seat use
- 7.1 Other strategies – school programs
- 7.2 Other strategies – inspection stations

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
LEL-21-00	Law Enforcement Liaison (LEL) Program
M2CPS-21-00	Education, Training, Communication

Planned Activity: Law Enforcement Liaison (LEL) Program

Planned activity number: **LEL-21-00**

Planned Activity Description

The LEL program provides short and long-term planning, along with management practices from the Police Traffic Services program in Tennessee. The program utilizes four LELs, inclusive of a Senior LEL, located regionally throughout the state along with a Statewide Training Coordinator, a Statewide DRE/ARIDE Training Coordinator, and an LEL Administrator. The THSO offers a wide range of traffic safety training to law enforcement officers and other traffic safety advocates and stakeholders. The program provides coordination for all major campaigns funded by federal, state, and local resources including, but not limited to, the Holiday Impaired Driving Campaign, the Memorial Day Click It or Ticket Campaign, and the Labor Day Booze It or Lose It Campaign. The Statewide Training Coordinator, Statewide DRE and ARIDE Training Coordinator, and each regional LEL have training responsibilities related to highway safety enforcement and prevention:

- SFST,
- ARIDE,
- DRE,
- Law Enforcement Challenge Program,
- Other law enforcement trainings,
- Child passenger safety,
- “Below 100” instructors,
- Southern Shield, and
- Operation Hands Free

The LELs conduct network meetings within their respective regions to convey trends, progress, and other highway safety-related information to law enforcement and other highway safety advocates across the state. The program also assists grantee agencies in meeting their goals within highway safety and maintains a communication link between the agencies and program managers within the THSO

Intended Subrecipients

The intended subrecipient of this planned activity is The University of Tennessee, Knoxville. The funding for this planned activity, along with the requested major purchases and dispositions, can be found in the Police Traffic Services section.

Planned Activity: Education, Training, Communication

Planned activity number: **M2CPS-21-00**

Planned Activity Description

The planned activity is to fund child passenger safety training along with community education projects and child passenger safety seat checkpoints

Intended Subrecipients

Intended subrecipients will be determined at a later date once all FFY 2021 grant application reviews have been completed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405b OP High	405b High Community CPS Services (FAST)	\$157,510.35	\$31,502.07	

Countermeasure Strategy: Enforcement

Program Area: **Occupant Protection (Adult and Child Passenger Safety)**

Project Safety Impacts

Tennessee continues to support the enforcement of seat belt and child passenger safety laws. Highly publicized and visible waves of enforcement of seat belt laws are necessary for increasing the public's perception of the risk of a citation, which is a critical component toward increased seat belt compliance by those risk-takers who are least likely to buckle up.

Occupant protection is a priority for law enforcement across the state. State and local agencies actively engage in enforcement and education as part of the agencies' mission to ensure that their communities stay safe. Several of the THSO's police traffic services grants include a seat belt enforcement component.

Nighttime enforcement is an emphasis area for many states, and Tennessee is no exception. Across the country, it's not uncommon for nighttime seat belt usage to be lower than during the daytime. The THSO recognizes that increasing seat belt usage among those traveling at night could decrease injury and fatality rates.

Tennessee implements a strong media and enforcement campaign to target occupant protection use. Three groups are targeted: male drivers, drivers in rural counties, and drivers on local roads. The media campaign includes radio and TV advertising during the NHTSA-sponsored Click It or Ticket campaign. National and locally produced media are used during each of these specified time frames. The THSO provides signage at local sporting and similar events to display the CIOT message. The signage is strategically placed to reach our targeted demographic.

Mobilizations are high-profile law enforcement programs, combined with paid and earned media, and they are evaluated in terms of observations of belt use and surveys of public awareness and public changes in behavior. These mobilizations are a 5-step process:

1. Two weeks of high-intensity traffic law enforcement to also include year-round seat belt education;
2. Intense publicity, both paid and earned, utilizing messages that increase the perception of dangers that are associated with not using the seat belt in a daily positive manner;
3. Pre-observational surveys to include current data; and
4. Immediate reporting of enforcement and media activity within specific mobilization areas of local jurisdictions.

Law enforcement participation is critical in reducing fatalities and injury crashes on Tennessee roads.

For the planned Memorial Day, Click It or Ticket Mobilization, the following agencies are anticipated to participate:

- Adamsville Police Department
- Alcoa Police Department
- Alexandria Police Department
- Anderson County Sheriff's Department
- Ardmore Police Department
- Athens Police Department
- Atoka Police Department
- Austin Peay State University Police Department
- Baileyton Police Department
- Bartlett Police Department
- Baxter Police Department
- Bean Station Police Department
- Bedford County Sheriff's Department
- Bell Buckle Police Department
- Belle Meade Police Department
- Benton County Sheriff's Department
- Benton Police Department
- Bethel Springs Police Department
- Blaine Police Department
- Blount County Sheriff's Department
- Bolivar Police Department
- Bradley County Sheriff's Department
- Brighton Police Department
- Bristol Police Department
- Brownsville Police Department
- Bruceton Police Department
- Burns Police Department
- Campbell County Sheriff's Department
- Cannon County Sheriff's Department
- Carroll County Sheriff's Department
- Caryville Police Department
- Chapel Hill Police Department
- Charleston Police Department
- Chattanooga Police Department
- Cheatham County Sheriff's Office
- City of Paris Police Department
- Claiborne County Sheriff's Office
- Clarksburg Police Department
- Clarksville Police Department
- Clay County Sheriff's Department
- Cleveland Police Department
- Clifton Police Department
- Clinton Police Department
- Cocke County Sheriff's Department
- Collegedale Police Department
- Collierville Police Department
- Collinwood Police Department
- Columbia Police Department
- Cookeville Police Department
- Coopertown Police Department
- Covington Police Department
- Cowan Police Department
- Crossville Police Department
- Cumberland County Sheriff's Department
- Dandridge Police Department
- Dayton Police Department
- Decatur County Sheriff's Office
- Decatur Police Department
- Decherd Police Department
- Dickson County Sheriff's Office
- Dickson Police Department
- Dover Police Department
- Dresden Police Department
- Dunlap Police Department
- Dyer Police Department
- Eagleville Police Department

- East Ridge Police Department
- Elkton Police Department
- Englewood Police Department
- Erin Police Department
- Estill Springs Police Department
- Ethridge Police Department
- Etowah Police Department
- Fairfield Glade Police Department
- Fairview Police Department
- Fayette County Sheriff's Office
- Fentress County Sheriff's Department
- Franklin County Sheriff's Office
- Franklin Police Department
- Gainesboro Police Department
- Gallatin Police Department
- Gallaway Police Department
- Gatlinburg Police Department
- Germantown Police Department
- Giles County Sheriff's Department
- Gleason Police Department
- Goodlettsville Police Department
- Grainger County Sheriff's Department
- Grand Junction Police Department
- Graysville Police Department
- Greene County Sheriff's Department
- Greeneville Police Department
- Greenfield Police Department
- Grundy County Sheriff's Department
- Halls Police Department
- Hamilton County Sheriff's Office
- Hancock County Sheriff's Department
- Hardeman County Sheriff's Department
- Hardin County Sheriff's Department
- Hawkins County Sheriff's Department
- Haywood County Sheriff's Department
- Henderson Police Department
- Hendersonville Police Department
- Henry County Sheriff's Department
- Hickman County Sheriff's Department
- Hohenwald Police Department
- Hollow Rock Police Department
- Houston County Sheriff's Department
- Humphreys County Sheriff's Office
- Jacksboro Police Department
- Jackson County Sheriff's Department
- Jackson Police Department
- Jasper Police Department
- Jefferson City Police Department
- Jefferson County Sheriff's Department
- Johnson City Police Department
- Johnson County Sheriff's Department
- Jonesborough Police Department
- Kenton Police Department
- Kimball Police Department
- Kingsport Police Department
- Kingston Police Department
- Kingston Springs Police Department
- Knox County Sheriff's Office
- Knoxville Police Department
- Lafayette Police Department
- LaFollette Police Department
- Lake County Sheriff's Office
- Lauderdale County Sheriff's Department
- LaVergne Police Department
- Lawrence County Sheriff's Department
- Lebanon Police Department
- Lenoir City Police Department
- Lewis County Sheriff's Department
- Lexington Police Department
- Lincoln County Sheriff's Department
- Livingston Police Department

- Lookout Mtn. Police Department
- Loretto Police Department
- Loudon County Sheriff's Department
- Macon County Sheriff's Department
- Madison County Sheriff's Department
- Madisonville Police Department
- Manchester Police Department
- Marion County Sheriff's Department
- Martin Police Department
- Maryville Police Department
- Mason Police Department
- Maury County Sheriff's Department
- McKenzie Police Department
- McMinn County Sheriff's Department
- McMinnville Police Department
- McNairy County Sheriff's Department
- Meigs County Sheriff's Department
- Memphis Police Department
- Metro Moore County Sheriffs Department
- Metropolitan Nashville Police Department
- Milan Police Department
- Millersville Police Department
- Millington Police Department
- Minor Hill Police Department
- Monroe County Sheriff's Department
- Monterey Police Department
- Montgomery County Sheriff's Department
- Morgan County Sheriff Department
- Morristown Police Department
- Moscow Police Department
- Mount Carmel Police Department
- Mount Pleasant Police Department
- Mt. Juliet Police Department
- Munford Police Department
- Murfreesboro Police Department
- New Johnsonville Police Department
- New Tazewell Police Department
- Newbern Police Department
- Newport Police Department
- Niota Police Department
- Nolensville Police Department
- Oak Ridge Police Department
- Oakland Police Department
- Obion County Sheriff's Office
- Oliver Springs Police Department
- Overton County Sheriff's Department
- Parrottsville Police Department
- Parsons Police Department
- Perry County Sheriff's Office
- Pickett County Sheriff's Office
- Pigeon Forge Police Department
- Pikeville Police Department
- Plainview Police Department
- Pleasant View Police Department
- Polk County Sheriff's Department
- Portland Police Department
- Red Bank Police Department
- Red Boiling Springs Police Department
- Rhea County Sheriff's Department
- Ridgely Police Department
- Ripley Police Department
- Roane County Sheriff's Office
- Robertson County Sheriff's Department
- Rockwood Police Department
- Rocky Top Police Department
- Rutherford County Sheriff's Office
- Rutledge Police Department
- Saint Joseph Police Department
- Saltillo Police Department
- Savannah Police Department
- Scott County Sheriff's Department
- Scotts Hill Police Department
- Selmer Police Department
- Sequatchie County Sheriff's Department
- Sevier County Sheriff's Office

- Sevierville Police Department
- Sharon Police Department
- Shelby County Sheriff's Office
- Shelbyville Police Department
- Signal Mountain Police Department
- Smith County Sheriff's Office
- Smithville Police Department
- Smyrna Police Department
- Soddy-Daisy Police Department
- Somerville Police Department
- South Fulton Police Department
- South Pittsburg Police Department
- Spencer Police Department
- Spring Hill Police Department
- Springfield Police Department
- Stewart County Sheriff's Office
- Sullivan County Sheriff's Department
- Sumner County Sheriff's Department
- Sweetwater Police Department
- Tazewell Police Department
- Tipton County Sheriff's Department
- Townsend Police Department
- Tracy City Police Department
- Trenton Police Department
- Trezevant Police Department
- Tullahoma Police Department
- Tusculum Police Department
- Unicoi Police Department
- Union City Police Department
- Union County Sheriff's Department
- University of Tennessee Health Science Center Campus Police Department
- University of Tennessee Police Department
- Van Buren County Sheriff's Department
- Vonore Police Department
- Walters State Campus Police
- Warren County Sheriff's Department
- Wartburg Police Department
- Wartrace Police Department
- Washington County Sheriff's Department
- Watertown Police Department
- Wayne County Sheriff's Department
- Waynesboro Police Department
- Weakley County Sheriff's Department
- Westmoreland Police Department
- White Bluff Police Department
- White County Sheriff's Department
- White House Police Department
- White Pine Police Department
- Whiteville Police Department
- Whitwell Police Department
- Williamson County Sheriff's Department
- Wilson County Sheriff's Department
- Winchester Police Department
- Woodbury Police Department

Linkage Between Program Area

Occupant protection education, enforcement, and outreach work in partnership to change driver behavior. The THSO and its partnering agencies will continue to highlight NHTSA's safety precautions to the driving public to minimize occupant protection issues in the State of Tennessee. Implementing this countermeasure strategy will increase driver awareness, which in turn will decrease the number of fatalities, injuries, and crashes.

Rationale

According to NHTSA's Countermeasures That Work, Ninth Edition, enforcement is a strong and effective method to be a part of an occupant protection program.

- 2.1 Seat belt law enforcement - short-term, high-visibility seat belt law enforcement
- 2.2 Seat belt law enforcement - integrated nighttime seat belt enforcement
- 2.3 Seat belt law enforcement - sustained enforcement

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
LEL-21-00	Law Enforcement Liaison Program
M2HVE-21-00	Enforcement

Planned Activity: Law Enforcement Liaison (LEL) Program

Planned activity number: **LEL-21-00**

Planned Activity Description

The LEL program provides short and long-term planning, along with management practices from the Police Traffic Services program in Tennessee. The program utilizes four LELs, inclusive of a Senior LEL, located regionally throughout the state along with a Statewide Training Coordinator, a Statewide DRE/ARIDE Training Coordinator, and an LEL Administrator. The THSO offers a wide range of traffic safety training to law enforcement officers and other traffic safety advocates and stakeholders. The program provides coordination for all major campaigns funded by federal, state, and local resources including, but not limited to, the Holiday Impaired Driving Campaign, the Memorial Day Click It or Ticket Campaign, and the Labor Day Booze It or Lose It Campaign. The Statewide Training Coordinator, Statewide DRE and ARIDE Training Coordinator, and each regional LEL have training responsibilities related to highway safety enforcement and prevention:

- SFST,
- ARIDE,
- DRE,
- Law Enforcement Challenge Program,
- Other law enforcement trainings,
- Child passenger safety,
- "Below 100" instructors,
- Southern Shield, and
- Operation Hands Free.

The LELs conduct network meetings within their respective regions to convey trends, progress, and other highway safety-related information to law enforcement and other highway safety advocates across the state. The program also assists grantee agencies in meeting their goals within highway safety and maintains a communication link between the agencies and program managers within the THSO

Intended Subrecipients

The intended subrecipient of this planned activity is The University of Tennessee, Knoxville. The funding for this planned activity, along with the requested major purchases and dispositions, can be found in the Police Traffic Services section.

Planned Activity: Enforcement

Planned activity number: **M2HVE-21-00**

Planned Activity Description

Local and state law enforcement agencies will utilize these grants to enforce daytime and nighttime seatbelt enforcement laws throughout the State of Tennessee.

Intended Subrecipients

Intended subrecipients will be determined after all FFY 2021 application reviews have been completed as well as data analysis.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405b OP High	405b High HVE (FAST)	\$160,000.00	\$32,000.00	

Countermeasure Strategy: Evaluation Surveys and Studies

Program Area: **Occupant Protection (Adult and Child Passenger Safety)**

Project Safety Impacts

According to *Countermeasures That Work, Ninth Edition*, “Abundant research has shown that correctly using an appropriate child restraint or seat belt is the single most effective way to save lives and reduce injuries in crashes.” The results of these studies help the THSO determine what communication and enforcement strategies are effective along with the sub-group to target the communication messages towards (i.e., Buckle Up in Your Truck).

Linkage Between Program Area

This is a highway safety program management responsibility. The annual survey of seat belt usage is mandated by NHTSA. The results of this annual survey are used to determine the effectiveness of occupant protection-related education, awareness, and enforcement activities throughout the year.

Rationale

This project will ultimately provide a statistically adjusted statewide average usage rate for seat belt usage. These average rates will be computed using field observations collected at 190 sites

in 16 counties across Tennessee. Evaluation data is compiled into a research report, which is utilized to provide interpretation and synthesis of information into annual and semi-annual reports.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M2OP-21-00	Survey

Planned Activity: Survey

Planned activity number: **M2OP-21-00**

Planned Activity Description

The planned activity is to fund the evaluation surveys and studies for seat belt usage, following the 2012 Uniform Criteria for State Observational Surveys of Seat Belt Use.

Intended Subrecipients

The intended subrecipient of this planned activity will be The University of Tennessee, Knoxville.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405b OP High	405b High OP Information System (FAST)	\$90,300.00	\$18,060.00	

Program Area: Traffic Records

Description of Highway Safety Problems

According to NHTSA, analyzing reliable and accurate traffic records data is central to identifying traffic safety problems and designing effective countermeasures to reduce injuries and deaths caused by crashes.

In the past decade, Tennessee's traffic records data systems have undergone NHTSA-sponsored assessments to identify areas for improvement. As a result of these assessments, Tennessee has developed traffic records data system projects designed to address the assessment recommendations. The 2009 traffic records assessment team reported that the Crash File contained an unacceptably high rate of errors. The THSO and the Tennessee Traffic Records Coordinating Committee (TRCC) sponsored the TITAN project. The TITAN crash module deployment significantly improved the quality, accuracy, and timeliness of Tennessee traffic crash data.

In the first half of the 2017 calendar year, the THSO and the TRCC undertook an effort to improve the state's traffic records strategic planning efforts. These efforts consisted of:

- Updating system descriptions to reflect current systems,
- Revisiting the assessment results and recommendations,
- Holding workshops with data system managers and stakeholders,
- Identifying goals for improvements, and
- Developing strategies to achieve those goals.

This approach to the traffic records strategic plan is still being used.

In the 2019 calendar year, the strategic planning document was updated based on the 2019 traffic records assessment to reflect plans to address the findings of the assessors. The result is an updated strategic planning document that reflects current progress. It can be used by the TRCC, data system managers, and decision-makers to guide the prioritization and funding of improvements to Tennessee's traffic records data systems.

Recent improvements to the State's traffic records data systems include the following:

1. An improved Tennessee Roadway Information Management System (TRIMS) Crash Location import process is under development. The new process will allow for a fully automated import of TITAN crash records into the TRIMS system using the latitude and longitude on the crash report and road names to determine location. The new import process will provide a much larger subset of crash data than the previous extract.
2. The Tennessee TRCC completed a strategic goal derived from the NHTSA Traffic Records Assessment by developing a Traffic Records Inventory document that is intended to be a consolidated reference of the Tennessee Traffic Records Data Systems. The TRCC, state agencies, and highway safety stakeholders can reference this document when planning improvements to the component data systems that will provide increased highway safety analysis capabilities. The document will provide the reader with data governance information and will be a reference for system documentation, data dictionaries, and user documentation. The document will be used as part of the TRCC's

efforts to improve the accessibility, completeness, uniformity, accuracy, integration, and timeliness of Tennessee’s traffic records data.

3. TITAN fatal crash data is now available via a THSO website that provides crash geo-analysis by county. Primary users are traffic safety professionals, law enforcement, and the general public. This project has increased the accessibility of fatal crash data within the state. This data continues to be updated bi-monthly. The state also deployed several web-facing crash data dashboards in 2019 and is continuing to develop dashboards for various traffic safety needs.
4. In 2019, the THP expanded its eCitation program from the three-county pilot program started in 2014 to 93 counties as of April 2019. Also, all 93 counties are auto-importing eCitation data and ticket images to the court clerks electronically. This saves THP, and the court clerks, countless hours of hand-keying citation data into law enforcement and court records management systems, and has substantially increased timeliness, data accuracy, and completeness.
5. In 2019, a discovery and documentation process was carried out on the TITAN crash system. This was prompted by a change in the vendor that develops the TITAN system and the outstanding need for a thorough documentation of the system. In the process, many bug fixes and upgrades were implemented, and improvements to the system based on the discovery findings are still underway.

Model Minimum Uniform Crash Criteria (MMUCC) Standards

Tennessee’s crash repository is currently designed according to MMUCC V3 guidelines. Tennessee completed a MMUCC V5 compliance review and will use the review results to guide the planned MMUCC V5 TITAN Upgrade.

Tennessee adopted the MMUCC Version 4 definition for the “Suspected Serious Injury (A)” in July 2018, and complies with FHWA requirements, including:

- Collecting and accurately aggregating MMUCC V4 attribute “Suspected Serious Injury (A).”
- The state’s crash database, data dictionary, and crash report user manual employs the verbatim terminology and definitions for this attribute from the MMUCC V4 standard.
- The state’s crash form employs the verbatim MMUCC V4 “Suspected Serious Injury (A)” attribute.
- Ensure the seven serious injury types covered by the attribute are not included in the other attributes listed in the state’s injury status data elements.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	Citation Timeliness, Completeness, Uniformity – Counties Deployed	2021	Annual	98.98
2021	Paper vs. Electronic	2021	Annual	70.00

Countermeasure Strategy: Traffic Records Improvement

Program Area: **Traffic Records**

Project Safety Impacts

The State of Tennessee must develop and implement effective programs that improve the timeliness, accuracy, completeness, uniformity, integration, and accessibility of state safety data. This data is used for policy development and the allocation of funding for cost-effective projects and programs. Traffic records are core components of public safety, public health, and public security decision support.

Linkage Between Program Area

A “performance plan” such as the HSP requires accurate data for program and project selection and for measuring the effectiveness of selected programs and projects. This planning function is highly dependent upon the availability and use of quality data from Tennessee’s traffic records data systems.

Rationale

A complete and comprehensive state traffic records system is essential for effective traffic-related injury control efforts. Traffic records provide the necessary information for:

- Tracking of trends,
- Planning,
- Problem identification,
- Operational management and control, and
- Implementation and evaluation of highway safety programs.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M3DA-21-00	Traffic Records Improvement

Planned Activity: Traffic Records Improvement

Planned activity number: **M3DA-21-00**

Planned Activity Description

Using data to support highway safety decisions allows the THSO and its partnering agencies to focus upon saving lives and preventing injuries. The work conducted by the TRCC ensures that Tennessee has a multi-year strategic plan to identify high-level goals, objectives, and strategies. Further, members of the TRCC consider and evaluate new technologies to keep the highway safety data and traffic records systems complete and up to date. The planned activity is to fund traffic safety information system improvement projects.

Intended Subrecipients

The intended subrecipients for this planned activity are:

- Tennessee Department of Safety and Homeland Security, and
- Tennessee Department of Health

Funding Sources

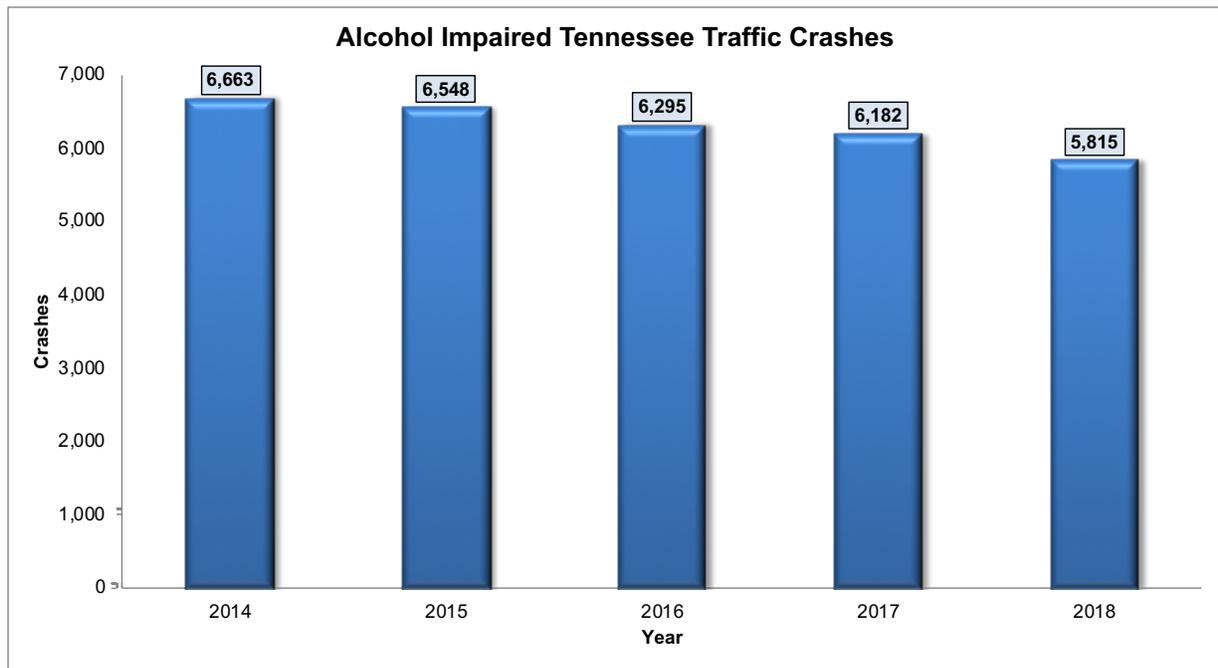
Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405c Data Program	405c Data Program (FAST)	\$973,325.73	\$194,665.15	

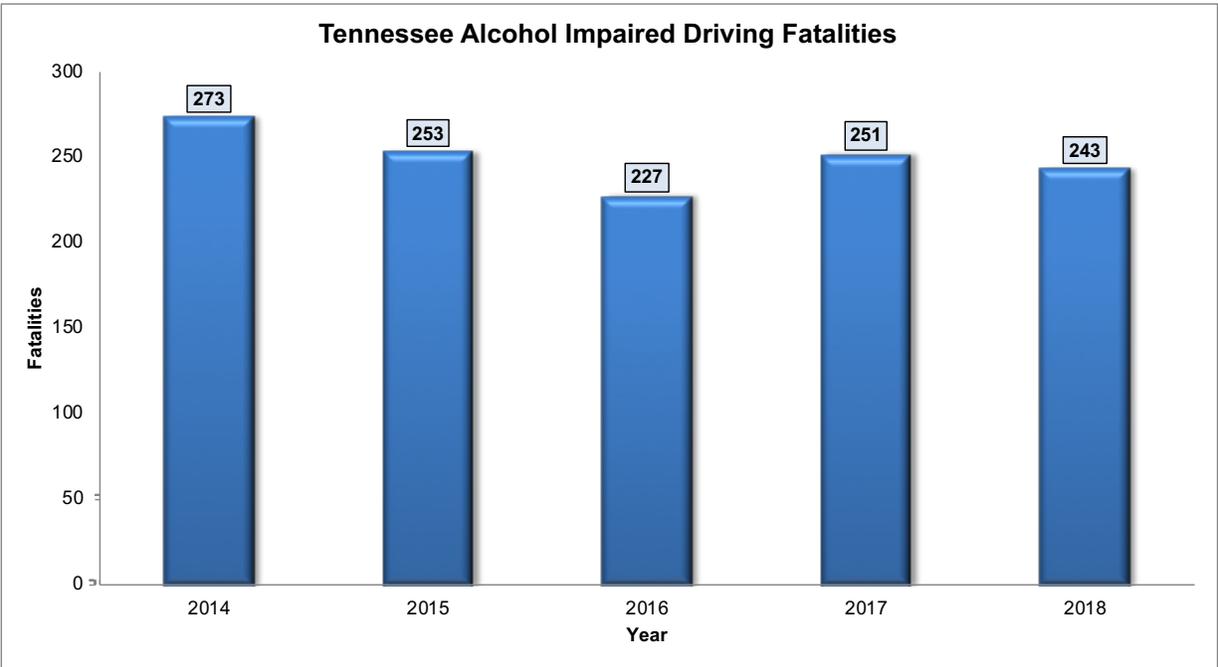
Program Area: Impaired Driving (Alcohol and Drug)

Description of Highway Safety Problems

Based on NHTSA's Traffic Safety Facts Sheet on Alcohol-Impaired Driving, which uses 2018 data, all 50 states, the District of Columbia, and Puerto Rico have laws that make it illegal to drive with a BAC of .08 g/dL or higher. In 2018, there were 10,511 people killed nationwide in alcohol-impaired driving crashes with BACs of .08 g/dL or higher. These alcohol-impaired-driving fatalities with BACs of .08 g/dL or higher accounted for 29 percent of all motor vehicle traffic fatalities in the United States in 2018. This is a slight decrease in actual fatalities from the previous year; however, it accounts for the same percentage as 2017.

Driving under the influence (DUI) of alcohol and/or drugs is a significant problem in Tennessee. In 2018, there were 5,815 alcohol-impaired driving crashes resulting in 243 fatalities, which accounts for 23.3 percent of the total roadway fatalities. This is a slight increase, however, well below the national average.





Unfortunately, impairment continues to be the single greatest contributing cause of fatal crashes among drivers in Tennessee. Even small amounts of alcohol can affect driver performance.

Legislation passed in 2012 permitted the use of search warrants in any DUI case. No Refusal Weekends are a model that permits agencies to detect high-risk times and places to implement No Refusal strategies. In addition to No Refusal Weekends, some counties have become No Refusal Counties. In those locations, any chemical test refusal results in a search warrant application to procure chemical test evidence.

Effective July 1, 2019, the Tennessee Legislature amended the Implied Consent Statute (TCA 55-10-406) and established a process that can be summarized as follows:

If an officer has probable cause to believe that the operator of a motor vehicle is driving while under the influence of any intoxicant, controlled substance, controlled substance analogue, drug, substance affecting the central nervous system or any combination thereof, the officer may request the operator of the vehicle to submit to a test or tests for the purpose of determining the alcohol or drug content, or both of the operator's blood.

Blood testing

The officer would ask for consent to obtain a sample of the operator's blood. If consent is granted, then the officer and the operator would go directly to the hospital and have a blood draw performed.

If there is a refusal, then the officer would need to get a search warrant or show exigent circumstances as to why the officer could not get a search warrant.

If the operator were informed of the implied consent law, then a refusal would carry all the administrative, civil, and evidentiary penalties in Tennessee.

Breath Testing

The officer would ask for consent to obtain a sample of the operator's breath. If consent is granted, then the officer and the operator would go directly to the location where the breath test will be performed.

An officer can request a breath test, even without consent, incident to a lawful arrest.

If the operator was informed of the implied consent law, then a refusal would carry all the administrative, civil, and evidentiary penalties in Tennessee.

The problem is finding the most effective way to improve traffic safety by improving the enforcement of vehicular crimes. Improving enforcement will result in the reduction of the number of crashes caused by impaired drivers, which will result in fewer injuries and fatalities in Tennessee. These resources will target the State of Tennessee and will assist law enforcement officers, prosecutors, and other traffic safety organizations. Due to the costs of conducting legal research and providing education, training, advice, legal updates, additional funding will be needed so that the enforcement of vehicular crimes will continue to be improved, the traffic safety community will continue to stay current on traffic safety issues, and the number of driver impaired crashes will continue to be reduced, thereby preventing future injuries and fatalities.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	C-5) Number of Fatalities in Crashes Involving a Driver or Motorcycle Operator with a BAC of .08 and Above (FARS)	2021	4-Year	241.00

Countermeasures and Planned Activities

Countermeasure Strategy: Blood/Breath Testing Devices

Program Area: Impaired Driving (Alcohol and Drugs)

Project Safety Impacts

The strategy is to increase capacity to address Tennessee Bureau of Investigation's (TBI) crime lab's backlog of casework due to the high number of driving under the influence, motor vehicle crash, and vehicular homicide cases and improve the quality and scope of the lab's toxicology testing of casework and on cases that require additional drug screen testing. This will improve the reliability and consistency of breath/alcohol instruments being utilized by local and state law enforcement throughout the state. It will also maintain expertise through continued training and education for scientists in the breath alcohol and toxicology sections of the TBI labs, keeping scientists up to date on new technologies and new defense issues.

Linkage Between Program Area

Implementing the proposed projects will support the THSO and partnering agencies' mission to decrease the number of impaired driving fatalities, injuries, and crashes.

The TBI's efforts do not directly impact the reduction of alcohol-related crashes and fatalities in the State of Tennessee; however, they have an impact on enforcing alcohol and impaired driving through the conducting of breath and blood alcohol testing and expert testimony utilized in DUI court cases.

Rationale

These strategies are foundational under NHTSA's *Countermeasures That Work, Ninth Edition*, under the following sections:

- Alcohol-and Drug-Impaired Driving, 1. Deterrence: Laws, 1.1 Administrative License Revocation or Suspension, 1.2 Open Container, 1.3 High-BAC Sanctions, 1.4 BAC Test Refusal Penalties
- Deterrence: Enforcement, 2.3 Breath Test Devices, 2.4 Passive Alcohol Sensors
- Deterrence: Prosecution and Adjudication, 3.1 DWI Courts, 3.2 Limits on Diversion and Plea Agreements

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
5BAC-21-00	TBI

Planned Activity: TBI

Planned activity number: **5BAC-21-00**

Planned Activity Description

The planned activity is to fund projects that will update equipment and provide training that will greatly reduce the toxicology backlog at the Tennessee Bureau of Investigation crime lab.

Intended Subrecipients

Tennessee Bureau of Investigation (TBI)

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405d Impaired Driving Mid	405d Mid BAC Testing/Reporting (FAST)	\$500,000.00	\$100,000.00	
2020	154 Transfer Funds-AL	154 Alcohol	\$183,208.53		\$0.00

Major Purchases and Dispositions

Equipment with a useful life of more than one year and an acquisition cost of \$5,000 or more

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Hydrogen Generators	5	\$10,230.08	\$51,150.40	\$9,718.58	\$48,592.88
LC System to connect with existing Sciex 3200 Qtrap LC-MS/MS	4	\$44,203.14	\$176,812.56	\$41,992.98	\$167,971.93
Large Nitrogen Generators	2	\$22,283.30	\$44,566.60	\$21,169.14	\$42,338.27
Large Zero Air Generator	1	\$29,322.07	\$29,322.07	\$27,855.97	\$27,855.97

Countermeasure Strategy: DUI Training of the Prosecutorial/Judicial Community and DUI Prosecution

Program Area: **Impaired Driving (Alcohol and Drugs)**

Project Safety Impacts

Training of the Prosecutorial/Judicial Community

Disseminating and sharing information are formidable tasks, especially with statute changes, new case law, and ever-changing technology. Supplying correct information to judges, prosecutors, law enforcement, defense attorneys, legislators, and educators is an ongoing challenge, as is changing behavior. Two Tennessee Traffic Safety Resource Prosecutors (TSRP), which are funded through the District Attorneys General Conference (TNDAGC), perform the following:

- Provide legal research and write articles and a quarterly distributed newsletter
- Provide seminars, meetings, a website, a blog site for prosecutors, information and consultation about impaired driving issues, and
- Provide information to judges, prosecutors, defense attorneys, legislators, and educators

The law regularly changes due to new legislation, recent decisions by the Tennessee Supreme Court/Court Criminal of Appeals, new technological advances, and from changes in societal attitudes and conduct. Continued research of these many changes is necessary to keep the legal community informed and aware of the greater context and nuances of traffic safety. It is the goal of the DUI Training Department to meet these needs. This will be accomplished in a variety of ways.

1. By providing statewide training and education for prosecutors concerning traffic safety-related issues and the current legal environment, to improve their ability to prosecute vehicular crimes and thereby reduce the number of crashes caused by impaired drivers.
2. Provide research, writing, and advice, including resource materials, to prosecutors across the state to increase their effectiveness in prosecuting vehicular crimes and thereby reducing the number of crashes caused by impaired drivers.

3. To provide training and education for law enforcement officers across the state, to improve their ability to investigate vehicular crimes, to improve their skills at communicating effectively in court, and to assist them in understanding all evolving traffic safety and vehicular crime issues.
4. To provide research, legal updates, and advice, including resource materials, to law enforcement officers across the state, to improve their effectiveness in the enforcement of vehicular crimes and thereby reducing the number of crashes caused by impaired drivers.
5. To provide legal updates, education, training, and advice to various organizations involved in traffic safety across the state.

This can be provided through a variety of steps:

- Provide training and education seminars to 150 prosecutors throughout the grant year.
- Advise and inform 500 prosecutors regarding the most recent legal updates and issues involving vehicular crimes through the provision and use of resource materials, trial manuals, a quarterly newsletter, a DUI focused website, and a DUI focused internet discussion group.
- Provide training and education seminars to 1,500 law enforcement officers throughout the grant year, to improve their ability to investigate vehicular crimes, to improve their skills at communicating in court, and to enhance their understanding of traffic safety issues
- Advise and inform 1,500 law enforcement officers regarding the most recent legal updates and issues involving vehicular crimes through the provision and use of resource materials, a quarterly newsletter, a DUI focused website, and by presenting at law enforcement meetings.
- Advise and inform 500 prosecutors, 250 judges, 1,500 law enforcement officers, and various other traffic safety organization of all current legal updates, along with any important safety issues, through the use of a quarterly newsletter, a DUI focused website and by presenting at local meetings.

Along with these positions, Tennessee has a Judicial Outreach Liaison (JOL). The JOL was hired in 2015 and begins its seventh year in 2021. The function of the JOL is to provide information to judges at all levels, Judicial Commissioners, Clerks, and Magistrates concerning best practices in the area of traffic safety. Such practices include instruction regarding the use of treatment courts, effective sentencing procedures, Fourth Amendment issues, new statutes, and case law reviews. The ultimate goal is to help members of the Judiciary gain quick and helpful access to information about best practices, which will help reduce the number of drug and alcohol crashes, resulting in decreased injuries and fatalities in Tennessee. He consults on a regular basis with National Judicial Fellow and, if applicable, the Regional JOL regarding the promotion of outreach efforts and opportunities as it applies to impaired driving. He will assist the THSO with program planning and strategies regarding outreach to judges and the courts. Participate, at the request of the state, in training and large group meetings, conferences, workshops, and media events focusing on impaired driving. This activity includes consulting assistance in the development of such events upon request. He will work with the THSO to address roadblocks that hamper effective outreach to the courts and finding alternative methods to address these issues and concerns as well as work LELs and the TSRPs to help identify and assist in efforts to promote,

strategize and help formulate new ideas involving the criminal justice system as it pertains to impaired driving.

Lastly, he will continue to develop a network of contacts with judges, judicial educators, and State Drug Court Coordinators and various professional organizations to provide educational materials and information and to help support educational efforts in traffic safety, particularly as they apply to impaired driving as well as serve on the state's Impaired Driving Advisory Council. (This was formerly named the Impaired Driving Task Force. The name change became effective in 2020.)

DUI Prosecution

Prosecutors trained in handling DUI cases are better able to make provable cases that withstand defense motions that can negatively impact the administration of justice. Funding for DUI prosecution activity will allow for the handling of all DUI-related cases, at a minimum, in criminal/circuit courts (required) and general sessions (if applicable), ensuring that all DUI offenders are charged correctly and in accordance with their criminal history; monitored from initial charge to conviction; and evaluated to determine the most appropriate intervention/treatment to reduce recidivism and societal costs. These are carried out through grants funding specialized DUI prosecution activity. There is an opportunity for the expansion of four districts in FFY 2021.

The charge of this DUI prosecution activity is to make provable cases that result in the prosecution of (in rank order):

1. DUI death or serious bodily injury cases, criminal/circuit cases for multiple and felony DUI offenses (not excluding general session's court);
2. First DUI offenses in criminal court; and
3. All DUI offenses in general session's court (if times permits).

They should also ensure timely prosecution of multiple-offenders, by adhering to a written policy that calls for the criminal circuit court to resolve or a set a trial date for these cases within 120 days of defense council's appointment or retention. They are required to ensure accurate and timely entry of data into the DUI Tracker in TITAN and retrieval of that data to determine how cases are being handled within (County/Judicial District) during the project period. They are to seek out and actively promote proven interventions, when possible, that reduce DUI recidivism rates such as DUI courts, victim impact panels, drug addiction programs, rehabilitation, transdermal alcohol monitoring, GPS tracking and monitoring, and ignition interlock devices.

Court Monitoring

The Court Monitoring Program is designed and intended to create transparency within the judicial system, encourage accountability among court officials, and educate the key individuals within the system and support the officers enforcing the laws. The goal of the Court Monitoring Program is to analyze the criminal justice system to determine where breakdowns are occurring in the trials and adjudications of impaired driving defendants and offer solutions. Also, another goal is to partner with law enforcement to educate the general public on the dangers of impaired driving as a deterrent to reduce impaired driving in Tennessee. Partnering with law enforcement will offer much-needed support to DUI prosecutors and Law Enforcement officers as well as encourage the court system to adjudicate impaired driving offenses in a tough and consistent manner.

Linkage Between Program Area

Swift prosecution of a DUI offense is critical for ensuring the motorist does not commit another offense while awaiting resolution of the existing charge and that punishment is meted in a timely fashion. As for a prosecution/treatment model, studies indicate that it is associated with lower recidivism rates and costs. Court Monitoring can help victims find a more victim sensitive court system, and ultimately, court monitoring helps reduce the rate of repeat offenses and fatal crashes among DUI offenders.

Rationale

These strategies are foundational under NHTSA's *Countermeasures That Work, Ninth Edition*, under the following sections:

- Alcohol-and Drug-Impaired Driving, 1. Deterrence: Laws, 1.1 Administrative License Revocation or Suspension, 1.2 Open Container, 1.3 High-BAC Sanctions, 1.4 BAC Test Refusal Penalties
- Deterrence: Enforcement, 2.3 Breath Test Devices, 2.4 Passive Alcohol Sensors
- Deterrence: Prosecution and Adjudication, 3.1 DWI Courts, 3.2 Limits on Diversion and Plea Agreements

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
DUIP-21-00	DUI Prosecution
MADDCS-21-00	MADD
TSRP/JOL-21-00	TSRP/JOL

Planned Activity: DUI Prosecution

Planned activity number: **DUIP-21-00**

Planned Activity Description

To combat this problem, the THSO is providing grant funding to ensure the timely and accurate disposition of DUI cases through DUI prosecution activity and coordinators in their respective judicial districts, and the provision of training necessary to make provable cases. The THSO recognizes that prosecution is one component of a comprehensive approach to addressing impaired driving.

Intended Subrecipients

Grant funding will be provided to 25 of the 31 judicial districts across the state. There is an opportunity for the expansion of 4 additional districts in FFY 2021.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	154 Transfer Funds-AL	154 Alcohol	\$6,250,000.00		\$6,250,000.00

Planned Activity: MADD

Planned activity number: **MCM-21-00**

Planned Activity Description

Mothers Against Drunk Driving (MADD) Tennessee administers a court monitoring program. This program relies heavily on volunteers to observe, track, and report on all court activities as it relates to impaired driving cases. Throughout the monitoring of these court cases, from arrest to adjudication, all information is logged into MADD's Court Monitoring Database. This database allows for the THSO and MADD to run reports on specific areas to determine if there are any breakdowns in the adjudication process.

Intended Subrecipients

The intended subrecipient of this grant will be MADD Tennessee.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	154 Transfer Funds-AL	154 Alcohol	\$130,574.95		\$0.00

Planned Activity: TSRP/JOL

Planned activity number: **TPJL-21-00**

Planned Activity Description

This project will target the State of Tennessee and will assist law enforcement officers, prosecutors, judges, and other traffic safety organizations. Due to the costs of conducting legal research and providing education, training, advice, legal updates, additional funding will be needed so that the enforcement of vehicular crimes will continue to be improved. The traffic safety community will continue to stay current on traffic safety issues, and the number of driver impaired crashes will continue to be reduced, thereby preventing future injuries and fatalities.

Intended Subrecipients

The intended subrecipients of the grants for this planned activity will be:

- Tennessee District Attorneys General Conference (Traffic Safety Resource Prosecutor)
- The University of Tennessee, Knoxville (Judicial Outreach Liaison)

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405d Impaired Driving Mid	405d Mid Other Based on Problem ID (FAST)	\$759,321.00	\$151,864.20	

Countermeasure Strategy: DUI/Drug Courts

Program Area: **Impaired Driving (Drug and Alcohol)**

Project Safety Impacts

Traditional methods of dealing with impaired driving offenders have not been successful in lowering crash rates or reducing the incidence of impaired driving. In the past, court systems punished the DUI offender in multiple ways:

- Placing him/her in jail for a mandated period of time;
- Taking away the offender's driver's license;
- Requiring litter pick up along the streets;
- Participation in an alcohol and drug education class; and,
- If being arrested again for another DUI, participation in residential treatment for 21 to 28 days.

Although these might deter some people, repeat offenders need treatment.

Linkage Between Program Area

Research indicates that long-term treatment, combined with judicial supervision, is working to reduce recidivism with multiple offenders. DUI Court programs provide such treatment.

Rationale

The DUI Court is based on the Drug Court model, which has been used successfully in the court system throughout the United States for the past 20 years. Using the Drug Court's ten guiding principles and adhering to them should produce a program that will successfully rehabilitate a repeat DUI offender and reduce the recidivism rate for multiple DUI offenses, thereby ensuring fewer victims and a safer community.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
M5CS-21-00	DUI/Drug Courts

Planned Activity: DUI/Drug Courts

Planned activity number: **M5CS-21-00**

Planned Activity Description

The planned activity is to fund the screening, assessment, treatment, and rehabilitation of DUI offenders. This includes the administration of DUI courts through one central grant.

Intended Subrecipients

The intended subrecipient will be the Tennessee Department of Mental Health and Substance Abuse Services.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)	\$300,000.00	\$60,000.00	

Countermeasure Strategy: Enforcement

Program Area: **Impaired Driving (Drug and Alcohol)**

Project Safety Impacts

Enforcement is a strategy within Section 3 of Highway Safety Program Guideline No. 8, Criminal Justice System. All alcohol grants for law enforcement activity require that participating officers be trained in SFST and that participating agencies coordinate their traffic patrols with other local safety activities and with state and national mobilizations or waves of enforcement.

Saturation patrols are law enforcement efforts that combine a high level of sustained enforcement with intense enforcement mobilizations around the Memorial Day weekend (typically May is one of Tennessee's deadliest months for traffic fatalities), the July 4th weekend, Labor Day (September), and December holiday period. Mobilizations are high-profile law enforcement programs combined with paid and earned media, and they are evaluated in terms of public awareness and public changes in behavior.

These saturation patrols will consist of three actions:

1. Sustained enforcement of monthly DUI operations by agencies serving at least 50 percent of the state's population;
2. Intense publicity, paid, earned, owned; and
3. Monthly reporting of enforcement and media activity.

Tennessee will organize a December holiday alcohol enforcement mobilization and a mid-summer traffic law enforcement mobilization concentrating on alcohol on 16 consecutive nights spanning three consecutive weekends by agencies serving at least 85 percent of the population. The agencies participating in the mobilizations will be required to maintain a high level of sustained enforcement by deploying monthly patrols combined with speed and other high-risk behavior enforcement efforts funded through the Police Traffic Services program.

Linkage Between Program Area

Highly visible impaired driving enforcement will be conducted at "hot spot" locations identified through analysis of the crash, citation, crime, and other data. This is a proven traffic safety

approach designed to create deterrence and change unlawful behavior. It combines highly visible and proactive law enforcement (e.g., saturation patrols, checkpoints, waves, multi-jurisdiction) with visibility elements (e.g., roadside signage, marked vehicles, mobile command posts) and publicity (e.g., press releases, billboards, flyers, social media) that educates the public about the danger of impaired driving and increased enforcement of DUI laws to promote voluntary compliance with the law.

Roadways with high traffic volumes will be targeted to ensure that the motoring public sees not only law enforcement, but also officers making traffic stops. One or more saturation patrols and/or DUI checkpoints will be conducted monthly for this project. Enforcement will also be conducted in support of the NHTSA impaired driving mobilizations during the July 4, Labor Day, and Christmas/New Year's Day holiday period.

The following visibility elements will be used during this project:

- Road signs (electronic message boards, pop-up road signs)
- Marked patrol vehicles (includes magnetic HVE signs or window clings)
- High visibility vests
- Handouts (flyers, brochure, etc.)
- Other visibility elements as deemed appropriate

The following public outreach activities highlighting the danger of impaired driving, Tennessee's DUI laws, and increased enforcement will be conducted in support of this project. This includes:

- Press releases (includes results of the enforcement)
- Press Events
- Public Service Announcements/Ads (includes radio, TV, newspapers)
- Letters to the Editor/Op-Eds
- Community Presentations
- Social Media Messaging
- Other public outreach activities as deemed appropriate

Grant funds will be allocated for over-time enforcement conducted by officers trained and certified in SFST (required), ARIDE (recommended), and DRE (recommended). Grant funds may also be allocated to purchase the supplies and equipment for use in conducting DUI-related enforcement. Equipment costing over \$5,000 will be approved by the THSO and NHTSA before it is acquired.

Rationale

This is a proven traffic safety approach designed to create deterrence and change unlawful behavior. It combines highly visible and proactive law enforcement (e.g., saturation patrols, checkpoints, waves, multi-jurisdiction) with visibility elements (e.g., roadside signage, marked vehicles, mobile command posts) and publicity (e.g., press releases, billboards, flyers, social media) that educates the public about the danger of impaired driving and increased enforcement of DUI laws to promote voluntary compliance with the law.

This countermeasure is foundational under NHTSA's *Countermeasures That Work, Ninth Edition*, Chapter 1, Alcohol and Drug-Impaired Driving, 2. Deterrence Enforcement (2.1 and 2.2)

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL/ID-21-00	Enforcement
LEL-21-00	Law Enforcement Liaison Program

Planned Activity: Enforcement

Planned activity number: **AL/ID-21-00**

Planned Activity Description

To combat this problem, the THSO is providing grant funding for alcohol saturation patrols, roadside sobriety checkpoint projects, and HVE that is conducted in jurisdictions identified through data analysis as having a high occurrence of alcohol-related fatal and serious injury crashes.

Intended Subrecipients

The intended subrecipients will be finalized after all application reviews and data analysis has been completed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	154 Transfer Funds-AL FAST Act	154 Alcohol 405d Mid	\$3,011,785.64		\$3,011,785.64
2020	405d Impaired Driving Mid	HVE (FAST)	\$550,000.00	\$110,000.00	

Program Area: Distracted Driving

Description of Highway Safety Problems

Distracted driving is any activity that could divert a person's attention away from the primary task of driving. These distractions shift the focus on another activity instead. They endanger driver, passenger, and even bystander safety. Some of these distractions include the following:

- Eating and drinking,
- Texting,
- Using a cell phone,
- Talking to passengers,
- Grooming,
- Reading (including maps),
- Using a navigation system,
- Watching a video, and
- Adjusting the radio, CD player, or Bluetooth.

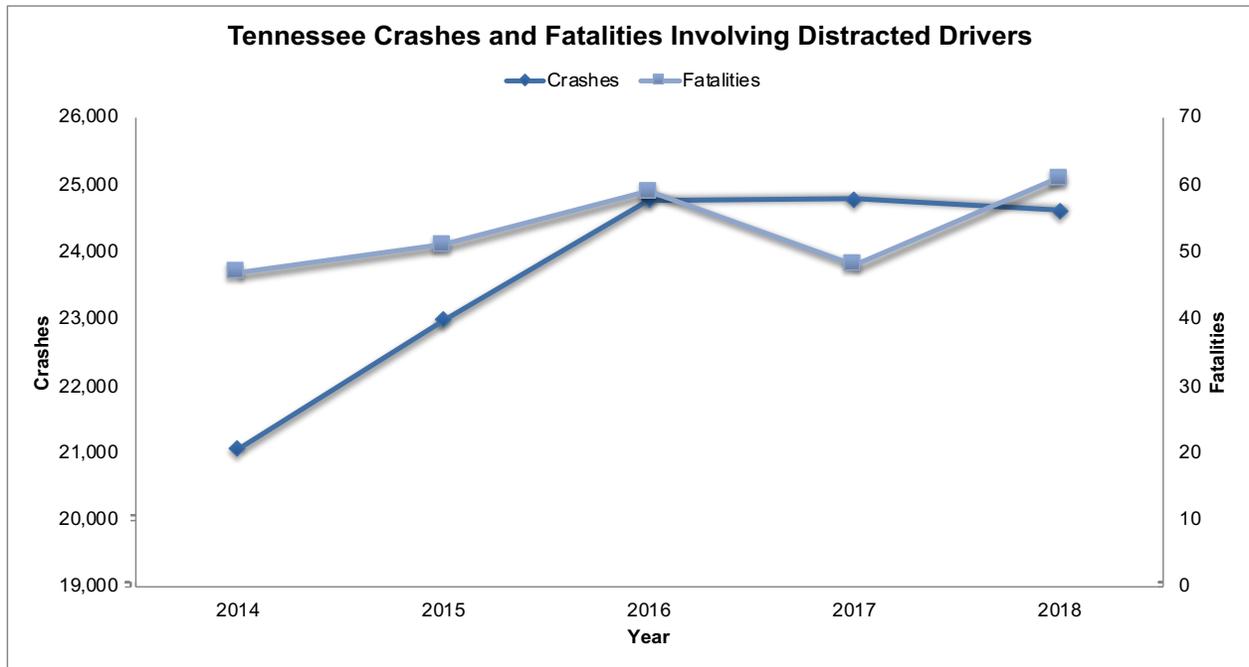
These distractions can be categorized as visual, auditory, manual, or cognitive.

- Visual distractions include tasks that require the driver to look away from the roadway to obtain information visually.
- Auditory distractions include functions that require the driver to hear something not related to driving.
- Manual distractions include tasks that require the driver to take a hand off the steering wheel and manipulate a device.
- Cognitive distractions include functions that require the driver to make his/her mind off driving and think about something else other than the driving task.

Texting is by far the worst of all the tasks that distract drivers. That is because text messaging requires visual, manual, and cognitive attention from the driver.

According to NHTSA's Traffic Safety Facts, nine percent of fatal crashes nationally in 2017 were reported as distraction-affected crashes. Nationwide, eight percent of all drivers 15 to 19 years old involved in fatal crashes were reported as distracted at the time of the crashes. This age group has the most significant proportion of drivers who were distracted at the time of the fatal crashes.

Distracted driving in Tennessee continues to be a problem, as seen from the chart on the following page. In 2018, more than 24,500 distracted driving crashes occurred. In the same year, there were 38 fatal crashes reported due to distracted driving.



Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	Distracted Driving Fatalities	2018	3-Year	53.00

Countermeasures and Planned Activities

Countermeasure Strategy: Communication and Enforcement

Program Area: Distracted Driving

Project Safety Impacts

According to NHTSA’s *Countermeasures That Work, Ninth Edition*, the obvious way to reduce distracted driving is to convince or require drivers to pay closer attention to their driving. This may be difficult to do. Most drivers view some distractions like eating, drinking, listening to the radio, and talking on the phone as everyday activities and most likely won’t refrain from doing them while they drive. Behavior strategies that promote awareness of the risks of distracted driving are recommended. Ultimately, the role of communication and enforcement could be useful in raising awareness for distracted driving issues among high-risk populations.

High visibility cell phone and text message enforcement’s “objective is to actively seek out cell phone users through special saturations, patrols, and a variety of enforcement techniques.” Tennessee implemented in July of 2019 a restricted cell phone usage law aimed at eliminating cell phone usage among all drivers. The new law is called “Hands Free Tennessee.” During April’s National Distracted Driving Awareness Month, “Hands Free Tennessee” is supported through an enforcement and communication initiative via a statewide bus tour. Hands Free Tennessee Bus Tour is executed annually by local law enforcement, the THP, and the THSO. Officers purposely

target cell phone users with a spotter technique from the bus, then radio ahead to another officer when a driver using a cell phone is detected. Officers have reported the higher vantage point, and unmarked vehicles, are strategies useful in identifying violators. Owned, earned, and paid media are launched to inform the public of this enforcement initiative. This strengthens the awareness that if you are observed with your phone in hand while driving, you are likely to be ticketed.

Cracking down on distracted driving through a similar enforcement campaign, Operation Incognito, was hugely successful in catching drivers not making good decisions behind the wheel. Operation Incognito, which also utilized a spotting technique to find distracted drivers behind the wheel, resulted in over 10,408 tickets in the State of Tennessee over five separate bus tour initiatives.

Linkage Between Program Area

Distracted driving enforcement and communication work in partnership to change driver behavior according to NHTSA's *Countermeasures That Work, Ninth Edition*. The THSO and its partnering agencies will continue to highlight NHTSA's safety precautions to the driving public to minimize distraction while driving. Implementing proposed projects, along with utilizing the integrated communications plan, will increase driver awareness, which in turn will decrease the number of fatalities, injuries, and crashes caused by distracted driving. To find more information on the integrated communications plan, please see the communications section.

Rationale

The State of Tennessee utilizes many strategies to decrease the number of people killed or seriously injured as a result of distracted driving on the roadways. For this countermeasure, the following is utilized from NHTSA's *Countermeasures That Work, Ninth Edition*:

- 1.3 High-Visibility Cell Phone and Text Messaging Enforcement
- 2.2 Communications and Outreach on Distracted Driving

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
DD-21-00	Enforcement

Planned Activity: Enforcement

Planned activity number: **DD-21-00**

Planned Activity Description

The planned activity is to fund agencies to educate and enforce Tennessee distracted driving laws, including Tennessee's new hands-free legislation.

Intended Subrecipients

Intended subrecipients will be determined at a later date after all FFY 2021 applications have been reviewed, and data has been analyzed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Distracted Driving (FAST)	\$185,000.00	\$37,000.00	\$105,000.00

Program Area: Motorcycle Safety

Description of Highway Safety Problems

Motorcycle safety continues to be a key area of concern in Tennessee. Based on the State Traffic Safety Information (STSI), 168 people died in 2018 as the result of a motorcycle crash, an increase from the previous year by approximately 20 percent. The THSO's mission is to reduce the human and economic toll associated with motorcycle-related crashes. This is accomplished by implementing proven strategies to reduce motorcycle-related fatalities and serious injuries.

A motorcyclist is a combined reference to motorcycle operators and passengers. The tables below provide an overview of motorcycle-involved crashes in Tennessee and how that compares to fatalities by age.

Tennessee Motorcyclist Fatalities by Age

Age	2014	2015	2016	2017	2018
Under 21 Years Old	4	7	13	7	8
21 to 44 Years Old	56	56	70	65	74
45 and Older	60	60	64	63	86
Unknown	0	0	0	0	0
Total	120	123	147	135	168

Source:

2014 - 2018 data, NHTSA. State Traffic Safety Information. Online at <https://cdan.nhtsa.gov/stsi.htm#>, accessed 13 May 2020.

After 2018, TN Dept. of Safety and Homeland Security, TITAN Business Unit, 13 May 2020. (FTS)

Tennessee law requires motorcyclists to wear a helmet. Despite the law, some fatalities still occur where the operator or passenger was not wearing a helmet. The following graph illustrates motorcycle fatalities in Tennessee based on helmet use.

Tennessee Motorcyclist Fatalities by Helmet Use

Age	2014	2015	2016	2017	2018
Used	109	109	133	123	153
Not Used	10	12	13	9	12
Unknown	1	2	1	3	3
Total	120	123	147	135	168

Source: 2014 - 2018 data, NHTSA. State Traffic Safety Information. Online at <https://cdan.nhtsa.gov/stsi.htm#>, accessed 08 Apr 2020.

After 2018, TN Dept. of Safety and Homeland Security, TITAN Business Unit, 08 Apr 2020. (FTS)

Based on the graph above, 2017 was the first year that Tennessee has seen in which less than ten fatalities were recorded where a helmet was not utilized. In 2014, precisely ten fatalities were observed in which a helmet was not used. Unfortunately, 2018 did show an increase of 3 from 2017 in regards to unhelmeted fatalities.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	C-7) Number of Motorcyclists Fatalities (FARS)	2021	5-Year	161.00
2021	C-8) Number of Unhelmeted Motorcyclist Fatalities (FARS)	2021	5-Year	10.00

Countermeasures and Planned Activities

Countermeasure Strategy: Training

Program Area: **Motorcycle Safety**

Project Safety Impacts

Tennessee has a public motorcycle rider education program that is run through the TDOSHS THP division. As stated in *Countermeasures That Work, Ninth Edition*, “A motorcycle is inherently more difficult to operate than a passenger vehicle because it requires more physical skill and strength.” The Tennessee Motorcycle Rider Education Program offers two intensive courses to prepare motorcycle operators for the challenges that the streets offer; one is for beginners, the other for more experienced riders. This allows students with similar skill levels to learn together. The funding for this program comes from Tennessee Code Annotated (TCA) 55-51-104. The TCA that corresponds to this program is attached in the appendix.

Along with general public training, the THSO hosts four regional trainings annually for law enforcement to attend to help educate officers on situations unique to the enforcement of motorcycle laws. These include the following:

- Required motorcycle equipment;
- Motorcycle licensing and speeding issues;
- Strategies for traffic stops;
- Strategies to avoid pursuit situations;
- Detection of impaired motorcyclists;
- Detection of non-compliant helmets;
- Latest on enforcement & public relations campaigns; and
- Officer and motorcyclist safety.

The following table shows the Tennessee counties that will have motorcycle rider training courses conducted during FFY 2021 along with the number of registered motorcycles in the county.

County	Registered # of Motorcycles
Blount	10,112
Coffee	2,883
Davidson	18,108
Dickson	2,507
Dyer	1,471
Franklin	2,297
Hamblen	3,231
Hamilton	17,338
Knox	15,778
Madison	3,683
Maury	4,496
Montgomery	15,759
Obion	1,589
Putnam	4,593
Rutherford	12,243
Shelby	19,069
Sullivan	9,321
Sumner	8,158
Total	152,636

Tennessee has a total of 293,077 registered motorcycles in the state.

No planned activities will be funded by utilizing this countermeasure directly. The training provided by the THSO will be funded under the LEL grant (see training section for more information). However, this is still an effective aspect of the THSO's overall countermeasure strategy as it pertains to motorcycle safety.

Linkage Between Program Area

As recommended by the Motorcycle Safety Program Plan (NHTSA, *Countermeasures That Work, Ninth Edition*), Tennessee offers training at various sites across the state. These training sites are located within counties that have a large number of registered motorcycles in order to reach the greatest number of motorcyclists.

Rationale

The State of Tennessee utilizes many of the strategies listed in the NHTSA's *Countermeasures That Work, Ninth Edition*, in regards to motorcycle safety. For this countermeasure, the following is utilized:

- 3.2 Motorcycle rider training

Countermeasure Strategy: Laws

Program Area: **Motorcycle Safety**

Project Safety Impacts

Tennessee, as stated in the problem identification, requires a helmet to be utilized by both passengers and operators of motorcycles, regardless of age.

The State of Tennessee requires that a valid motorcycle license be issued to all operators of a motorcycle. The THSO does not oversee the licensing process. The Driver's License Administration within the TDOSHS oversees all licensing, including motorcycle operation.

No planned activities will be funded by utilizing this countermeasure. However, this is still an effective aspect of the THSO overall countermeasure strategy as it pertains to motorcycle safety.

Linkage Between Program Area

According to NHTSA's *Countermeasures That Work, Ninth Edition*, "State universal coverage helmet-use laws are effective at increasing helmet use. A study of states with universal helmet laws found that these states showed 29% fewer fatalities than those that did not have a universal helmet law."

While Tennessee does require a license to operate a motorcycle, *Countermeasures That Work* states that nationwide, 27 percent of all motorcycle fatalities in 2015 were not properly licensed. With proper licensing and the benefits that come with it, there could be fewer fatalities as individuals would have the knowledge and training necessary to ride on the roadways.

Rationale

The State of Tennessee utilizes many of the strategies listed in the NHTSA's *Countermeasures That Work, Ninth Edition*, in regards to motorcycle safety. For this countermeasure, the following is utilized:

- Tennessee Code Annotated (Laws)
 - 1.1 Universal coverage state motorcycle helmet use laws
 - 3.1 Motorcycle rider licensing

Countermeasure Strategy: Communication

Program Area: **Motorcycle Safety**

Project Safety Impacts

Widely used by many agencies, including the THSO, is a communication strategy to increase the general motoring public's awareness of the vulnerability of motorcycle operators. Within the THSO's integrated communications plan (see the communications section for more information) is the Look Twice messaging campaign. This is a statewide campaign that is used in conjunction with NHTSA's Share the Road message

Linkage Between Program Area

Multiple studies completed by NHTSA (*Countermeasures That Work*) state that in multi-vehicle crashes in which a motorcycle is involved, the other vehicle is frequently cited for violating the motorcycle operator's right-of-way. By utilizing a communication strategy, the THSO can inform the general motoring community about the vulnerability of a motorcycle operator.

Rationale

The State of Tennessee utilizes many of the strategies listed in the NHTSA's *Countermeasures That Work, Ninth Edition*, in regards to motorcycle safety. For this countermeasure, the following is utilized:

- 4.2 Communications and outreach: motorist awareness of motorcyclists

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
MCCM-21-00	Communications (MC)

Planned Activity: Communications (MC)

Planned activity number: **MCCM-21-00**

Planned Activity Description

The planned activity is to fund a motorcycle awareness campaign directed towards the general motoring public. The motorcycle awareness campaign will utilize the Look Twice for Motorcycles behavioral message during Motorcycle Safety Awareness Month and designated enforcement periods taking place through September. The specific age category is adults 25 - 54 years old. The measure for advertising outreach will be within the goals and guidelines of frequency and reach set by NHTSA for national paid media campaigns.

The areas targeted will utilize crash data and include the cities and counties with the highest motorcycle crash rates and raw numbers.

Intended Subrecipients

Intended paid media organizations will be determined at a later date, but could include the following aspects of advertising:

- Audio spots (radio and streaming),
- Social media,
- Digital advertising (display, pre-roll), and
- Out-of-Home (gas station advertising).

No funding will be associated with this planned activity as it is a part of the complete integrated communications plan. Funding for this activity can be found within the communications program area under the integrated communications countermeasure's paid media planned activity.

Program Area: Teen Traffic Safety Program

Description of Highway Safety Problems

Motor vehicle crashes continue to be the leading cause of death for teenagers in the United States. In 2017, 2,526 teens between the ages of 15-20 were killed in traffic crashes (Teen Distracted Driving Data, 2019). In comparison with adult drivers, the number of young drivers involved in crashes is substantially higher. In 2017, drivers between the ages of 15-20 made up 5.4 percent of licensed drivers in the United States (Traffic Safety Facts, 2019). In 2018, Tennessee saw 67 teens between the ages of 15-19 killed on the roadways. According to the table below, approximately two-thirds of these fatalities were young drivers, while the other one-third were young passengers.

Persons Age 15 to 19 Killed in Tennessee Traffic Crashes

	2014	2015	2016	2017	2018
Drivers	36	37	43	30	41
Others	29	28	23	31	26
Total	65	65	66	61	67

Source:

2014 - 2018 data, NHTSA. *State Traffic Safety Information*. Online at <https://cdan.nhtsa.gov/stsi.htm#>, accessed 13 May 2020.

After 2018, TN Dept. of Safety and Homeland Security, TITAN Business Unit, 13 May 2020. (FTS)

According to NHTSA's *Countermeasures That Work, Ninth Edition*, young drivers have high crash risks for two main reasons. These reasons include inexperience and risk-taking. Alone, each of these characteristics can make young drivers at risk for crashes; together, they make young drivers particularly at-risk.

Inexperience makes certain circumstances more dangerous for young drivers. Novice drivers focus much of their attention on the mechanics of driving. Since safety considerations are often secondary, they do not recognize potentially risky situations, nor do they react appropriately and control their vehicles according to *Countermeasures That Work*. Young drivers are often immature and are not able or willing to think ahead about the harmful consequences of risky behaviors and/or actions. Technical ability, good judgment, and experience are all needed to make all the continuous decisions, large and small properly, that add up to safe driving. According to the research efforts of Dahl, Keating, and Steinberg in *Countermeasures That Work*, on adolescent development, key areas of the brain involved in judgments and decision making are not fully developed until the mid-20s.

NHTSA has identified five areas of concern in relation to younger drivers. These areas include the following:

- Nighttime driving,
- Drinking and driving,
- Passenger interactions,
- Belt use, and
- Cell phone use.

The table below illustrates the reduction of both the number and percentage of drivers between the ages of 15-19 involved in fatal crashes in Tennessee between the years 2014-2018.

Representation of Drivers Between Ages 15 and 19 in Fatal and Injury Crashes, Tennessee

	2014	2015	2016	2017	2018	Change
Drivers Between Ages 15 & 19 in Fatal & Injury Crashes	8,191	9,000	9,338	8,983	8,125	-0.8%
Percentage of Drivers in Fatal & Injury Crashes Between Ages 15 & 19	10.1%	10.1%	9.9%	9.7%	9.1%	-9.6%
Licensed Drivers Between Ages 15 & 19	263,174	263,415	265,767	248,125	268,220	1.9%
Percentage of Licensed Drivers Between Ages 15 & 19	5.6%	5.6%	5.6%	5.2%	5.4%	-4.1%
Representation of Drivers Between Ages 15 & 19	1.80	1.81	1.76	1.87	1.69	-5.8%

Representation is percentage of drivers in fatal and injury crashes divided by percentage of licensed drivers. Source: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 13 May 2020. (TITAN)

According to *Countermeasures That Work*, “GDL provides a structure in which beginning drivers gain substantial driving experience in less-risky situations.” Tennessee has had a GDL program since July 2001. Tennessee’s GDL program is a multi-tiered program designed to ease young novice drivers into full driving privileges as they become more mature and develop their driving skills. By requiring more supervised practice and instituting traffic laws that apply only to young drivers, the state hopes to save lives and prevent tragic injuries. Tennessee’s GDL program places certain restrictions on teens under the age of 18 who have learner permits and driver licenses. The program requires parent/legal guardian involvement and emphasizes the importance of a good driving record.

The Tennessee GDL law provides for three phases of licensing for teens under 18 years of age. These phases include:

- Learner Permit,
- Intermediate Restricted License, and
- Intermediate Unrestricted License.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	C-9) Number of Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)	2021	5-Year	98.00

Countermeasures and Planned Activities

Countermeasure Strategy: Graduated Driver Licensing

Program Area: Teen Traffic Safety Program

Project Safety Impacts

Tennessee GDL is a system for phasing in on-road driving, allowing beginners to get their initial experience under conditions that involve lower risk and introducing them in stages to more complex driving situations. Tennessee's GDL program places certain restrictions on teens under the age of 18 who have learner permits and driver licenses, such as limiting nighttime driving hours. By limiting nighttime driving hours in phases 1 and 2 of the Tennessee GDL process, the State of Tennessee hopes to prevent tragic injuries and save lives. No planned activities will be funded by utilizing this countermeasure. However, this is still an effective aspect of the THSO overall countermeasure strategy as it pertains to teen drivers.

Linkage Between Program Area

The GDL system addresses both the inexperience and immaturity of young drivers. GDL provides a structure in which beginning drivers gain substantial driving experience in less-risky situations. GDL raises the minimum age of full licensure and helps parents manage their teenage drivers. GDL's effectiveness in reducing young driver crashes has been demonstrated many times (Masten, Foss, & Marshall, 2013; Russell, Vandermeer, & Hartling, 2011; Shope, 2007; Simpson, 2003; Williams, Tefft, & Grabowski, 2012 Rationale).

Rationale

The State of Tennessee utilizes many strategies to decrease the number of teens killed and seriously injured on the roadways. For this countermeasure, the following is utilized from NHTSA's *Countermeasures That Work, Ninth Edition*:

- 1.1 Graduated Driver Licensing (GDL)
- 1.2 Learner's Permit Length, Supervised Hours
- 1.3 Intermediate – Nighttime Restrictions
- 1.4 Intermediate – Passenger Restrictions
- 1.5 Cell Phone Restrictions
- 1.6 Belt Use Requirements
- 1.7 Intermediate – Violation Penalties

Countermeasure Strategy: Communication

Program Area: Teen Traffic Safety Program

Project Safety Impacts

Through collaboration with the Tennessee Teen Safe Driving Coalition, statewide partners, TDOSHS, school systems, and local law enforcement agencies across the state, the THSO wants to bring together youth and adult leaders to develop and steward resources to support teen drivers. The work with the TDOSHS will help educate teens and parents on GDL laws and requirements by providing wallet-sized cards and rack cards at all driver licensing centers in the

state. The continued partnership with statewide communication programs will serve as a positive support network for teens who wish to change the way their friends act behind the wheel, as well as other issues that teens face in their daily lives. Interactive programs will provide teens with a better understanding of GDL and state laws by allowing them to see, hear, and do. Questions are tailored to present information on both highway and alcohol safety awareness. They include current Tennessee teen crash data and statistics, GDL policies, and information about risky driving behaviors, as well as minimum drinking age laws. The THSO will also utilize technology to promote the ReduceTNCrashes.org website. Reduce TN Crashes is designed to increase awareness of safe driving practices amongst teens by facilitating and rewarding activities that are rooted in promoting teen traffic safety. Reduce TN Crashes combines innovative branding and basic marketing to create a campaign for increasing traffic safety activities in all public and private high schools throughout Tennessee. By providing teen crash rate data and a growing list of safe driving activities, Reduce TN Crashes raises awareness of the need for safe driving programs, provides the tools to find crash reduction activities, and awards points to schools for completing and submitting pictures of their experiences. Local partners will help communicate the need for young drivers to follow GDL laws, the importance of not driving distracted, wearing a seatbelt, and the consequences of driving impaired.

Linkage Between Program Area

According to the NHTSA’s Guideline No. 4, Driver Education, “States should develop and implement communication strategies directed at supporting policy and program elements.” Teen driver education programs will continue to change driver behavior. The THSO and its partnering agencies will continue to highlight NHTSA’s safety precautions to the driving public to minimize teen driver crashes and fatalities.

Rationale

The State of Tennessee utilizes many strategies to decrease the number of teens killed and seriously injured on the roadways. For this countermeasure, the following is utilized from NHTSA’s Uniform Guidelines for State Highway Safety Programs:

- No. 4, Driver Education, Section V. Communication

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
TSP-21-00	Communication

Planned Activity: Communication

Planned activity number: **TSP-21-00**

Planned Activity Description

The planned activity is to fund projects to provide educational opportunities to students in elementary and secondary schools as well as is to fund underage prevention drinking projects.

Intended Subrecipients

The intended subrecipients will be determined after all application reviews and data analysis has been completed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Teen Safety Program (FAST)	\$707,404.13	\$141,480.83	\$639,765.50
2020	154 Transfer Funds-AL	154 Alcohol	\$524,645.47		\$279,760.75
2020	FAST Act 405d Impaired Driving Mid	405d Mid Other Based on Problem ID (FAST)	\$154,000.00	\$30,800.00	

Program Area: Non-Motorized (Pedestrian and Bicyclists)

Description of Highway Safety Problems

Nationally, in 2018 there were 6,283 pedestrians killed in traffic crashes, which is more than a 3 percent increase and the most deaths since 1990. Tennessee's statistics are following that trend but at an even higher rate. According to FARS, Tennessee had 124 pedestrian fatalities in 2017. That number rose to 136 in 2018, which shows a 12.40 percent increase and accounts for 13.08 percent of the state's fatalities during 2018. Under Tennessee law, pedestrians have the right of way at all intersections and driveways. However, pedestrians must act responsibly, using pedestrian signals and sidewalks where they are available. When crossing the road at any point other than a marked crosswalk or unmarked crosswalk at an intersection, a pedestrian has a statutory duty to yield the right of way to all vehicles on the roadway. It is the duty of pedestrians to look before starting across a highway, and in the exercise of reasonable care for their own safety, to keep a timely lookout for approaching motor vehicle traffic. On roadways where there is no sidewalk, pedestrians should always walk facing oncoming traffic.

Fatalities and injuries involving bicyclists are also a cause for concern. Nationally, in 2018, 857 bicyclists were killed, which accounted for 2.2 percent of all fatalities, and an additional 50,000 were injured. The number of crashes in Tennessee held steady at 435 from 2016 to 2017, according to TITAN. However, this number must decrease. The primary crash locations in 2018 were in urban areas with Shelby County (Memphis) at 93, Davidson County (Nashville) at 64, Hamilton County (Chattanooga) at 41, and Knox County (Knoxville) at 27. Tennessee law states that a bicycle has the legal status of a vehicle. This means that bicyclists have full rights and responsibilities on the roadway and are subject to the regulations governing the operation of a motor vehicle.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	C-10) Number of Pedestrian Fatalities (FARS)	2021	5-Year	167.00
2021	C-11) Number of bicyclists fatalities (FARS)	2021	4-Year	6.00

Countermeasures and Planned Activities

Countermeasure Strategy: Training

Program Area: **Non-Motorized (Pedestrians and Bicyclist)**

Project Safety Impacts

Tennessee is in the final year of a Bike-Ped demonstration project funded by NHTSA. According to *Countermeasures That Work, Ninth Edition* pedestrians and bicyclists come in all ages with many levels of knowledge, skill, perception, and judgment. The THSO strives to reduce serious

injuries and fatal crashes by educating all roadway users about safe practices and Tennessee laws regarding bicycle and pedestrian safety.

The THSO hosts a post-certified bicycle and pedestrian course, as needed, for law enforcement officers. The following educational sessions are also presented:

- Bicycle Safety Education for Children;
- Community-based programs for target groups;
- On-bike training;
- Pedestrian Safety and Infrastructure;
- Latest on Enforcement & Public Relations campaigns; and
- Bicyclist and pedestrian safety.

No planned activities will be funded by utilizing this countermeasure. However, this is still an effective aspect of the THSO overall countermeasure strategy for bicycle and pedestrian safety.

Linkage Between Program Area

As recommended by the strategies to Increase bicycle and pedestrian safety (NHTSA, *Countermeasures That Work, Ninth Edition*), Tennessee offers regional training statewide. These training sites are located within areas that have the most significant number of injuries and fatalities to reach this most vulnerable demographic.

Rationale

The State of Tennessee utilizes many of the strategies listed in the NHTSA's *Countermeasures That Work, Ninth Edition* for bicycle and pedestrian safety. For this countermeasure, the following is utilized:

- 1.3 Bicycle Safety Education for Children
- 2.2 Bicycle Safety Education for Adults
- 4.6 Pedestrian Gap Acceptance Training

Countermeasure Strategy: Laws

Program Area: **Non-Motorized (Pedestrians and Bicyclist)**

Project Safety Impacts

Tennessee, as stated in the problem identification, shows a dramatic increase in the number of pedestrians killed in traffic crashes and no decrease in the high number of bicyclist fatalities.

Tennessee law states that a bicycle has the legal status of a vehicle, which means the cyclist has both the rights and responsibilities of all other vehicles. It further states that a vehicle must exercise due care to avoid colliding with any pedestrian on any roadway.

No planned activities will be funded by utilizing this countermeasure. However, this is still an effective aspect of the THSO overall countermeasure strategy as it pertains to bicycle and pedestrian safety.

Linkage Between Program Area

According to NHTSA's *Countermeasures That Work, Ninth Edition*:

- Bicyclists
 - “State Highway Safety Offices can help ensure correct riding and driving around bicyclists through communications and outreach campaigns, and through training law enforcement officers about laws that impact the safety of bicyclists, and applicable enforcement.”
- Pedestrians
 - “The purpose of enforcement strategies is to increase compliance with the pedestrian and motorist traffic laws that are most likely to enhance the safety of pedestrians in areas where crashes are happening or most likely to happen due to increased pedestrian and motorist exposure.”

Rationale

The State of Tennessee utilizes many of the strategies listed in the NHTSA’s *Countermeasures That Work*, Ninth Edition for bicycle and pedestrian safety. For this countermeasure, the following is utilized:

- Tennessee Code Annotated (Laws)
 - 3.3 Enforcement Strategies (Bicycle)
 - 4.4 Enforcement Strategies (Pedestrian)

Countermeasure Strategy: Communication

Program Area: **Non-Motorized (Pedestrians and Bicyclist)**

Project Safety Impacts

Widely used by many agencies, including the THSO, are communication strategies designed to increase the understanding of bicyclist and pedestrian safety. Also factored in is the awareness of the general motoring public of the vulnerability of this population.

Linkage Between Program Area

Information shared by NHTSA (*Countermeasures That Work*) show numerous factors associated with pedestrian and bicycle crashes, including distractions, driver speed, and alcohol use. By utilizing a communication strategy, the THSO can increase the knowledge and show the safety skills required for protecting bicyclists and pedestrians and perhaps preventing crashes, injuries, and fatalities.

Rationale

The State of Tennessee utilizes many of the strategies listed in the NHTSA’s *Countermeasures That Work*, Ninth Edition for bicycle and pedestrian safety. For this countermeasure, the following is utilized:

- 4.2 Share the Road Awareness
- 1.4 Cycling Skills Clinics, Bike Fairs, Bike Rodeos

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PMPS-21-00	Non-Motorized Paid Media
PS-21-00	Education

Planned Activity: Non-Motorized Paid Media

Planned activity number: **PMPS-21-00**

Planned Activity Description

A “Look for Me” media campaign will be utilized to increase the awareness of bicyclists, pedestrians, and the general motoring public. Opportunities for participation in cycling skills clinics, bike fairs, and rodeos will also be provided to develop the skills necessary to operate a bicycle safely. The areas targeted for these utilize crash data and include the Tennessee regions with the highest bicyclist and pedestrian crash rates.

Intended Subrecipients

Intended paid media organizations will be determined at a later date, but could include the following aspects of advertising:

- Audio spots (radio and streaming),
- Social media,
- Digital advertising (display, pre-roll), and
- Out-of-Home (billboards).

No funding will be associated with this planned activity as it is a part of the complete integrated communications plan. Funding for this activity can be found within the communications program area under the integrated communications countermeasure’s paid media planned activity.

Planned Activity: Education

Planned activity number: **PS-21-00**

Planned Activity Description

The planned activity is to fund projects to provide education outreach programs in areas that have high pedestrian/bicycle fatalities and crashes within the State of Tennessee.

Intended Subrecipients

The intended subrecipients will be determined after all application reviews and data analysis has been completed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Pedestrian/Bicycle Safety (FAST)	\$66,284.39	\$13,256.88	\$66,284.39

Program Area: Communications (Media)

Description of Highway Safety Problems

The THSO will utilize an integrated communications plan that works in tandem with the law enforcement communities across the State of Tennessee and alignment with the NHTSA Communications Plan. The THSO will capitalize on unique promotional opportunities available in the State of Tennessee that reach the target demographic highlighted by state-specific crash data. This plan focuses on impaired driving, occupant protection, pedestrian safety, distracted driving, teen driving, and motorcycle awareness.

Brand recognition and interpretation of the message will help encourage behavioral changes. For example, Booze It & Lose It is associated with the penalties of drinking and driving. The Click It or Ticket message, on the other hand, is associated with the penalties of not wearing seatbelts. Both messages associate the brand with the desired change. This effort, over time, can be persuasive and effective at modifying driver behavior, particularly when used in conjunction with enforcement efforts.

Paid Media

The THSO has engaged in a state interagency contractual agreement with Tennessee Technological University (TTU) to provide media buying, marketing, and advertising services. Services include feature design, production, purchasing, and administrative reconciliation to assist the state in its efforts to inform and educate the public on traffic safety issues. The primary services encompass the purchasing and creation of audio spots (radio and streaming), television (network and cable), social media, digital advertising (display, pre-roll, native, and Over-the-Top Television [OTT]), cinema ads, and Out-of-Home (OOH) to dispense various THSO traffic safety-related messages.

TTU will employ a data-driven approach for media buys utilizing statewide crash and fatality statistics to most effectively engage the target audience, thereby reducing fatalities, injuries, and associated economic losses resulting from traffic crashes.

Campaigns

Booze It & Lose It / Buzzed Driving is Drunk Driving / Fans Don't Let Fans Drive Drunk

The Booze It & Lose It message will be utilized with enforcement activities during the Holiday and Labor Day campaign periods and will target the Male 18-34 demographic group. The campaigns will include audio spots (radio and streaming), television (network and cable) time, social media, digital advertising (display, pre-roll, native, and OTT), cinema ads, and OOH for in-bar advertising. The measure for advertising outreach will be within the goals and guidelines of frequency and reach set by NHTSA for national paid media campaigns.

Outside of enforcement periods, the social norming messages Buzzed Driving is Drunk Driving and Fans Don't Let Fans Drive Drunk are used during Halloween, St. Patrick's Day, and Independence Day holidays, along with sports contractors, using a combination of the mediums mentioned above. Target demographics for each campaign are selected based on state-specific, historical crash data.

Further, the FFY 2021 plan includes a diversity strategy to influence the driving behavior of the Hispanic population, as indicated by the crash data.

[Click It or Ticket / Buckle Up, Tennessee / Buckle Up In Your Truck](#)

The Click It or Ticket campaign will be utilized with an enforcement message through designated campaign periods and will target the Male 18-34 demographic group, specifically in rural areas. The campaigns will include audio spots (radio and streaming), television (network and cable), social media, digital advertising (display, pre-roll, native, and OTT), cinema ads, and OOH (billboards). The measure for advertising outreach will be within the goals and guidelines of frequency and reach set by NHTSA for national paid media campaigns.

Outside of enforcement periods, the social norming messages Buckle Up, Tennessee and Buckle Up in Your Truck may be used during the Thanksgiving and Valentine's Day holidays, as budget allows, using a combination of the mediums mentioned above. Target demographics for each campaign are selected based on state-specific, historical crash data.

[Look Twice for Motorcycles](#)

The motorcycle awareness campaign will utilize the Look Twice for Motorcycles behavioral message during Motorcycle Safety Awareness Month and designated enforcement periods taking place through September. The specific age category is adults 25 - 54 years old. The campaigns will include audio spots (radio and streaming), social media, digital advertising (display, pre-roll), and OOH (gas station advertising and billboards). The measure for advertising outreach will be within the goals and guidelines of frequency and reach set by NHTSA for national paid media campaigns.

The areas targeted will utilize crash data and include the cities and counties with the highest motorcycle crash rates and raw numbers.

[Hands Free, Tennessee](#)

The distracted driving awareness campaign will utilize the Hands Free, Tennessee enforcement message during Distracted Driving Awareness Month. The specific age category is teenagers and young adults 15 - 34 years old. The campaigns will include audio spots (radio and streaming), broadcast television, social media, and digital advertising (display, pre-roll). The measure for advertising outreach will be within the goals and guidelines of frequency and reach set by NHTSA for national paid media campaigns.

The areas targeted will utilize crash data and include the cities and counties with the highest distracted driving-related crashes.

[Be Aware, Be Alert](#)

The pedestrian safety mini-campaigns will utilize the Be Aware, Be Alert behavioral message each Spring and Fall, targeting a city that has seen a high amount of pedestrian fatality and injury crashes. The campaign targets both pedestrians and drivers. Pedestrians are provided with safe-crossing information, and drivers are reminded of the vulnerability of pedestrians. The campaigns will include audio spots (radio and streaming), social media, and OOH (billboards, transit ads). The measure for advertising outreach will be within the goals and guidelines of frequency and reach set by NHTSA for national paid media campaigns.

Earned Media

The THSO will strategize earned media as part of its integrated communications plan that works in tandem with NHTSA. This plan requires cohesive collaboration between earned media and paid media to reinforce Tennessee laws and change driver behavior.

Earned media efforts encompass the THSO's major topics, including alcohol-impaired driving, drug-impaired driving, distracted driving, occupant protection, bicycle and pedestrian safety, older driver safety, teen driver safety, and motorcycle safety.

Each media campaign will be strategized to reach the appropriate target audience(s) during each campaign period. In doing so, the THSO will analyze Tennessee's media use and current population demographics to accurately target messaging.

Tactics and Channels

Traditional Media Versus New Media

The THSO's earned media efforts are comprised of the following: traditional news media, digital news media, and social media. The THSO will continue to pitch traditional news outlets like local radio, television, and print newspapers; however, the THSO will substantially increase efforts toward digital communications and social media as internet technology continues to advance.

Press Events

The THSO often collaborates with traffic safety partners and community advocates to host press events during media campaigns. A press event is a tactic used to increase community support, personalize the enforcement message, localize the issue, and spread awareness for crash victims and families of crash victims. All THSO press events are video recorded, uploaded to YouTube, and posted to social media. In 2016, the THSO began using Facebook Live to record press events.

Website

The THSO website, www.TNTrafficSafety.org, serves as the primary resource for THSO's digital assets. The site provides Tennessee traffic crash data, THSO news and information, event calendars, educational resources, and more.

Social Media

In advance of every month, the THSO builds a digital social media calendar using a Google spreadsheet. This spreadsheet is populated with content based on the NHTSA communications calendar. The THSO also develops creative content to capitalize on social media trends, upcoming events, and popular topics. The THSO often uses social events to apply a relevant traffic safety message. Once approved by THSO management, all content within the social media calendar is scheduled to be posted via Hootsuite, a social media dashboard.

The THSO closely monitors its social media presence using the analytical tools provided by each platform. The THSO's most successful platforms are YouTube, Facebook, and Twitter. Social media reports are generated monthly and shared with the management team for review. This allows staff and management to know which content generated the most interest and engagement.

Platform

Audience (As of 4/10/2020)

YouTube: www.youtube.com/TNHSO	1,382,848 Total Video Views
Facebook: www.facebook.com/TNHSO	13,367 Likes
Twitter: www.twitter.com/TNHSO	5,028 Followers
Instagram: www.instagram.com/TNHSO	1,263 Followers

Campaign	Time Period(s)	Branding
Bike / Ped Safety	October 2020 (Walk to School Day) August 2021 (Back to School Safety Month)	THSO
Pedestrian Safety	October 2020 (School Bus Safety Week)	THSO
5 to Drive	October 2020 (Teen Driver Safety Week)	NHTSA
Put the Brakes on Fatalities	October 2020 (Put the Brakes on Fatalities Day)	THSO
Buckle Up Tennessee / Buckle Up In Your Truck	November 2020 (Thanksgiving Holiday Travel) May 2021 – August 2021 (Summer Seatbelt Safety)	THSO
Fans Don't Let Fans Drive Drunk	February 2021 (Super Bowl Weekend)	NHTSA
Thumbs Down to Texting & Driving	April 2021 (Distracted Driving Awareness Month)	THSO
Look Twice	May 2021 (Motorcycle Safety Awareness Month)	NHTSA
Booze It & Lose It	October 2020 (Halloween) November 2020 – December 2020 (Pre-Holiday) December 2020 – January 2021 (Holiday) March 2021 (March Madness/St. Patrick's Day) May 2021 (Cinco De Mayo) May 2021 – September 2021 (Summer Heat) September 2021 (Labor Day Weekend) July 2021 (Independence Day)	THSO
Child Passenger Safety	September 2021 (Child Passenger Safety Week)	THSO
Click It or Ticket	May 2021 – June 2021 (Hands Across the Border)	NHTSA / THSO

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	Paid Media Impressions	2021	Annual	70,000,000.00
2021	Earned Media Engagements	2021	Annual	227,000.00

Countermeasures and Planned Activities

Countermeasure Strategy: Integrated Communications

Program Area: **Communications (Media)**

Project Safety Impacts

The THSO will strategize both media branches (earned and paid) as part of its integrated communications plan that works in tandem with the NHTSA Communications Calendar. This plan requires cohesive collaboration to reinforce Tennessee laws and change driver behavior.

Paid Media

The THSO will participate in several sports-related media partnerships. The THSO will partner with private entities across the state to deliver its messages at sporting events; community events; professional sports teams; minor league baseball teams and motorsports venues in higher crash areas in Tennessee; numerous high school teams' sports promotions statewide. Additionally, the THSO anticipates it will identify additional public events that attract the target demographic group during FFY 2021.

Earned Media

Earned media efforts encompass the THSO's major topics, including alcohol-impaired driving, drug-impaired driving, distracted driving, occupant protection, bicycle and pedestrian safety, senior driver safety, teen driver safety, and motorcycle safety.

Each media campaign will be strategized to reach the appropriate target audience(s) during each campaign period. In doing so, the THSO will analyze Tennessee's media use and current population demographics to target messaging accurately.

Linkage Between Program Area

Paid Media

The THSO has engaged in a contractual grant agreement with TTU in Cookeville, Tennessee, utilizing a state interagency agreement to provide media, marketing, and advertising services. The services feature design, production, purchasing, and administrative reconciliation to assist the state in its efforts to inform and educate the public on traffic safety issues. The primary services encompass the purchasing of radio spots, television (network and cable) time, social media channels, and online advertising space to dispense various THSO traffic safety-related messages.

TTU will employ a data-driven approach for media buys utilizing statewide crash and fatality statistics in the campaigns as outlined below in order to most effectively engage the target audience, thereby reducing fatalities, injuries, and associated economic losses resulting from traffic crashes.

Earned Media

In advance of every month, the THSO builds a digital social media calendar using a Google spreadsheet. This spreadsheet is populated with content based on the NHTSA communications calendar. The THSO also develops creative content to capitalize on social media trends, upcoming events, and popular topics. The THSO often uses social events to apply a relevant

traffic safety message. Once approved by THSO management, all content within the social media calendar is scheduled to be posted via Hootsuite, a social media dashboard.

The THSO closely monitors its social media presence using the analytical tools provided by each platform. The THSO's most successful platforms are YouTube, Facebook, and Twitter. Social media reports are generated monthly and shared with the management team for review. This allows staff and management to know which content generated the most interest and engagement.

Rationale

In nearly every section of *Countermeasures That Work, Ninth Edition*, a communications and outreach countermeasure is provided. By enhancing brand recognition and the interpretation of the messages, this will help build and sustain social norms that promote safe driving. For example, Booze It & Lose It is associated with the penalties of drinking and driving, while the Click It or Ticket message is associated with increasing seat belt usage to save lives. Both messages associate the brand with the desired behavioral changes. The THSO will raise awareness of traffic safety issues by hosting local press events to draw the attention of traditional media outlets and increase the use of social media and internet technology to spread awareness across digital platforms.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PM-21-00	Paid Media

Planned Activity: Paid Media

Planned activity number: **PM-21-00**

Planned Activity Description

The planned activity is to provide educational messages through brand association to change social norm behaviors for specific at-risk groups.

Intended Subrecipients

The THSO will participate in several media partnerships. The following will be considered:

Professional Athletic Teams

- Tennessee Titans (football)
- Nashville Predators (hockey)
- Memphis Grizzlies (basketball)

Collegiate Athletic Team

- The University of Tennessee (football and men's & women's basketball)
- Vanderbilt University (football, men's & women's basketball, and baseball)
- The University of Memphis (football and men's basketball)
- Middle Tennessee State University (football, men's & women's basketball; intercampus bus and bus stop)

- The University of Tennessee at Chattanooga (football)
- Tennessee State University (football and men’s & women’s basketball)
- East Tennessee State University (football, men’s & women’s basketball and baseball)

Sporting Events

- Liberty Bowl
- Music City Bowl
- Southern Heritage Classic
- High school athletic events (ticket sponsorship with Huddle and event sponsorship with TSSAA)

Community Events

- Music City Midnight
- Nashville 4th of July
- Memphis in May

The THSO will also partner with private entities across the state to deliver its messages at other venues that are deemed to be within the required demographic.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Paid Advertising	\$600,000.00	\$120,000.00	\$0.00
2020	154 Transfer Funds-PM	154 Paid Media	\$2,350,000.00		\$0.00
2020	FAST Act 405b OP High	405b High Paid Advertising (FAST)	\$385,000.00	\$77,000.00	
2020	FAST Act 405f Motorcycle Programs	405f Paid Advertising (FAST)	\$90,000.00	\$18,000.00	

Program Area: Community Traffic Safety Program

Description of Highway Safety Problems

With an increasing need for data-driven initiatives, governmental and non-governmental organizations need to address their traffic injury problems locally to an ever-greater extent.

Long-term individual and community-based measures are crucial for addressing complex behavioral problems like drinking and driving that are determined by a myriad of cultural, lifestyle, and psychosocial factors. Single-strategy activities focused on the individual have been shown to be ineffective over the long term, particularly when compared with grassroots, community-based activities reflecting social attitudes about what behaviors are acceptable to other members of the community.

Community-level planning and activities permit a higher level of coordination and earned media than the traditional single-strategy approaches once favored in highway safety. When community leaders begin to consider who needs to be involved in their highway safety activities, they are often surprised by the interest and skills non-traditional partners bring to the table.

The THSO is working to integrate market-savvy information into multiple-strategy social marketing campaigns, generally developed at the community level, that not only get drivers' attention but also motivates them to change their behavior.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	Unique Visitors on TNTrafficSafety	2021	Annual	105,000.00

Countermeasures and Planned Activities

Countermeasure Strategy: Communication

Program Area: **Community Traffic Safety Program**

Project Safety Impacts

This program will promote culturally diverse traffic safety activities for the growing Spanish-speaking population in Tennessee. Further, it will offer a wide variety of services to help promote, market, and educate Tennessee residents about the Tennessee Highway Safety Office's mission to reduce crashes, fatalities, and injuries.

Linkage Between Program Area

There is an urgent need to continue the positive and coordinated THSO educational efforts through marketing and outreach programs to decrease the number of injuries and fatalities on all Tennessee roadways. Finding sustainable creative marketing and promotional strategies is essential for building effective relationships with the various target markets and Tennessee stakeholders. The creation of innovative marketing and outreach programs is crucial to lower

injuries and fatalities and empower traffic safety stakeholders with the technology, resources, and motivation to share THSO's vision of having all roadway

Rationale

Nearly every section of the NHTSA's *Countermeasures That Work, Ninth Edition*, utilizes communication and outreach as an effective strategy. The following program areas have a communication and outreach component as well as some areas not listed:

- Seat belts and child restraints,
- Speeding and speed management, and
- Distracted and drowsy driving.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
SA-21-00	Tennessee Traffic Safety Resource Center

Planned Activity: Tennessee Traffic Safety Resource Center

Planned activity number: **SA-21-00**

Planned Activity Description

The planned activity is to fund the Tennessee Traffic Safety Resource Center to implement communication and outreach programs to reach all different types of demographics to help increase driver awareness, this will, in turn, reduce the number of fatalities, injuries, and crashes.

Intended Subrecipients

The intended subrecipient for this planned activity will be Tennessee Technological University.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Safe Communities (FAST)	\$1,008,598.94	\$201,719.79	\$1,008,598.94

Program Area: Emergency Medical Services (EMS)

Description of Highway Safety Problems

EMS response times for an ambulance in rural Tennessee can be anywhere from 10-30 minutes. Transport times to a hospital can even be longer, depending upon the location of the call for service. Since Tennessee is mostly rural, there is often a need to transport severely injured motorists to a level one trauma center via a helicopter. The chances for a patient who has a life-threatening injury to survive, diminish the longer the patient must wait. That is why strategies must be in place to ensure that all first responders receive training to effectively treat and transport crash victims within the "Golden Hour." Expediting effective care during this critical time can make the difference in the prevention of another fatality on Tennessee roadways.

Currently, there are no national performance measures for EMS outlined in the ninth edition of Countermeasures That Work. The goals and specific performance measures are related to the development of quality traffic safety records with performance attributes that include timeliness, accuracy, completeness, uniformity, integration, and accessibility across six core state traffic record data systems. According to the following NHTSA website: <https://one.nhtsa.gov/Driving-Safety/Office-of-Emergency-Medical-Services>, NHTSA has supported the development of comprehensive EMS systems for more than 40 years. When injuries occur as a result of motor vehicle crashes, EMS provides the best "last chance" to reduce death and disability." One way this is achieved is by categorizing crashes by severity, distance, and time. These ideas are outlined below:

- "Severity – The life-threatening injuries sustained by the casualty and deterioration in the minutes that follow,"
- "Distance – The actual road miles to the incident and the subsequent transport time to the hospital," and
- "Time – The time taken for the whole rescue team to respond to the incident and extricate the casualty" (Watson).

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	EMS Grants	2021	Annual	4.00

Countermeasures and Planned Activities

Countermeasure Strategy: Training

Program Area: **Emergency Medical Services**

Project Safety Impacts

It is paramount that educational and training opportunities for first responders are increased to decrease the number of fatalities and serious injuries on our roadways. Since they are the first to arrive at the scene of crashes in Tennessee, the strategies should provide training that

addresses the categories of severity, distance, and time. Severity enables the responder to know whether the injuries are life-threatening. Distance and time are considered to ensure that in the cases of extrication, the rescue team meets the needs of the injured person(s) for:

- Extrication,
- Mobilization of care, and
- Transport to a trauma center within the "Golden Hour."

Linkage Between Program Area

By providing first responder training to agencies within the state, they, in turn, can expedite timely and effective care and transportation to those injured in motor vehicle crashes. By increasing the number of first responders who are appropriately trained on extrication equipment, shorter extrication times can be achieved. This would increase the survivability of those injured on Tennessee roadways, thus reducing the number of fatalities as well

Rationale

Highway Safety Program Guideline 11: Emergency Medical Services requires that each state, in cooperation with its political subdivisions, ensures that persons incurring traffic injuries or trauma receive prompt emergency care under the range of emergency conditions encountered. Recommendations, at a minimum, for an EMS program should include components that address the following:

- Regulation and policy,
- Resource management,
- Human resources and training,
- Transportation,
- Facilities,
- Communications,
- Trauma Systems,
- Public information and education,
- Medical direction, and
- Evaluation.

Implementing the proposed projects will improve motor vehicle crash survivability and injury outcomes by improving the availability, timeliness, and quality of emergency medical response during the "Golden Hour."

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
EMS-21-00	Training

Planned Activity: Training

Planned activity number: **EMS-21-00**

Planned Activity Description

The planned activity is to fund projects to provide training opportunities and extrication equipment to rural first responder agencies within the State of Tennessee.

Intended Subrecipients

The intended subrecipients will be determined after all application reviews and data analysis has been completed.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Emergency Medical Services (FAST)	\$100,000.00	\$20,000.00	\$100,000.00

Major Purchases and Dispositions

Equipment with a useful life of more than one year and an acquisition cost of \$5,000 or more

Item	Quantity	Unit Cost	Total Cost	NHTSA Share per Unit	NHTSA Share Total Cost
Extrication Cutter	1.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
Battery Powered Hydraulic Cutter	1.00	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00
Battery Powered Hydraulic Spreader	1.00	\$9,000.00	\$9,000.00	\$9,000.00	\$9,000.00

Program Area: Older Driver

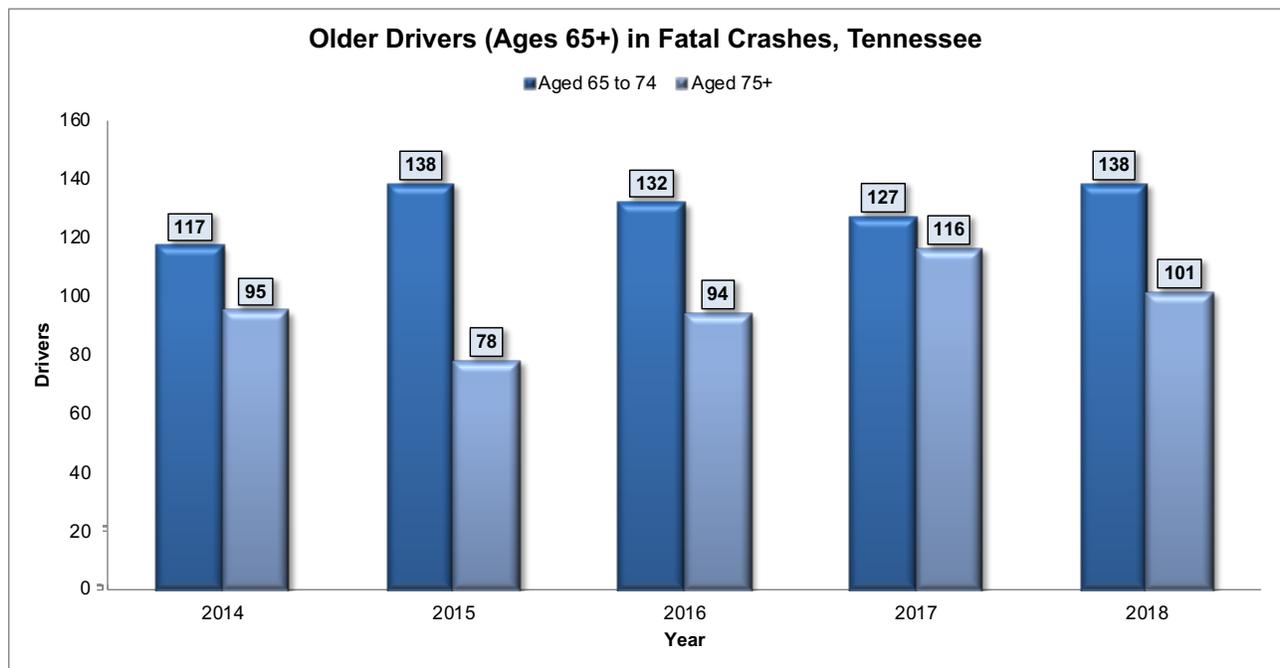
Description of Highway Safety Problems

According to the Commission on Affordable Housing and Health Facility Needs for Seniors in the 21st Century, the population projections for senior adults, age 65 and over is expected to increase from 12.4 percent, or 35 million seniors, to 20 percent of the population, by 2030. This estimate is expected to be higher for Tennessee. By 2030, Tennessee's senior population, age 65 and over, is projected to be 22 percent of the state's population. The Tennessee Department of Health's Health Statistics Division estimates that by 2030, seniors between 65 and over will represent:

- 20-30 percent of the population in 65 of the 95 counties in Tennessee;
- 19 counties of the state's rural counties will have as much as 30-40 percent of their population represented by senior adults, and
- 2 counties in the Cumberland area of the state will have as much as 40-42 percent of their population represented by seniors

The charts below illustrate observed data trends for fatalities and serious crashes for the years 2013 -2017 for age groups that include: Aged 65-74 and 75 and older.

The first chart illustrates that between the years 2013 and 2017, there was an increase of 33 fatalities combined for both groups, which represents an increase of +16 percent. For the age group 65 – 74, the increase was +7 or + 6 percent. For the age group 75 and over, the increase in fatalities was +26 or +29 percent.

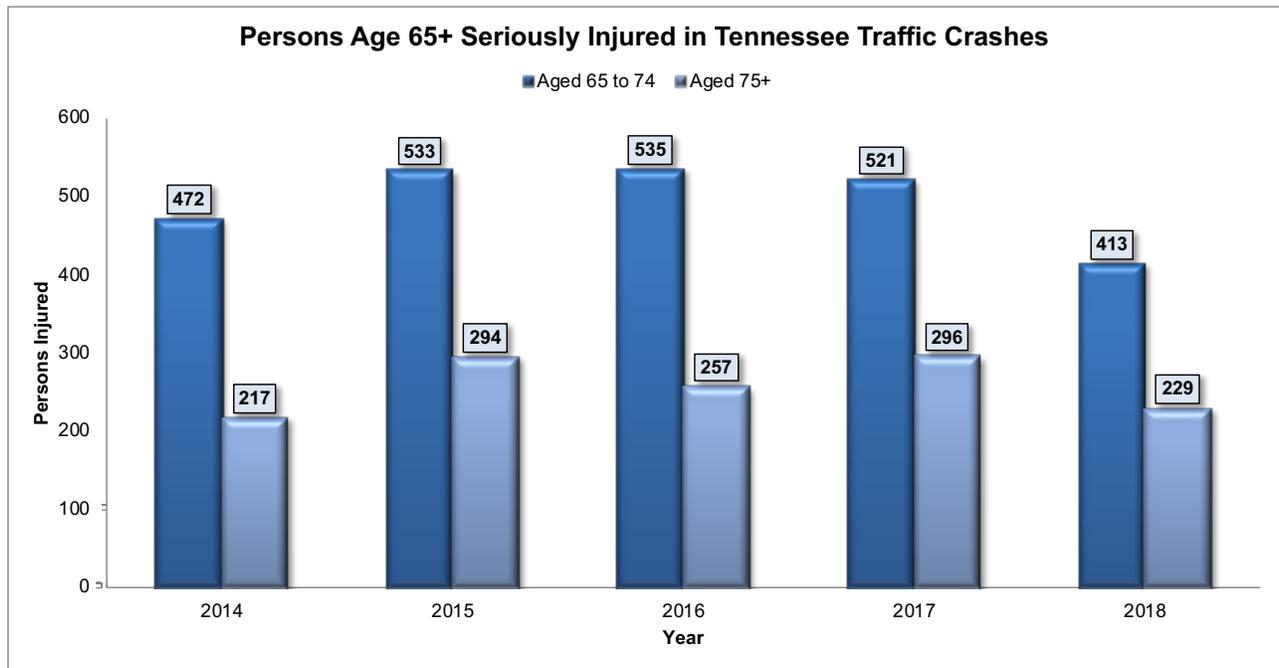


Source:

2014 - 2018 data, NHTSA. State Traffic Safety Information. Online at <https://cdan.nhtsa.gov/stsi.htm#>, accessed 19 May 2020.

After 2018, TN Dept. of Safety and Homeland Security, TITAN Business Unit, 19 May 2020. (FTS)

The second chart below illustrates observed data trends for the years 2013-2017 for serious crashes for the age groups that include age 65-74 and 75 and over. There were increases for both age groups. For the age group 65-74, the increase was +72 or an increase of +16% percent. For the age group 75 and over, the increase was +81, which was an increase of +38 percent.



Sources: TN Dept. of Safety and Homeland Security, TITAN Business Unit, 19 May 2020. (TITAN)

There are many factors that affect the older driver population. They are:

Impact of Aging and Medical Conditions

The aging process can impact one's ability to drive safely. These include physical, cognitive, and neurological conditions. Physical changes include loss of vision, hearing, flexibility, muscle strength, mobility, and coordination. Cognitive changes, like dementia and Alzheimer's, can impact driving performance. Neurological conditions can also result in deterioration over time and affect walking, muscle strength, and coordination. Other changes like a reduction in reaction time and attention, increased fragility and frailty, and the progression of diseases, like diabetes, arthritis, and Parkinson's, can, over time, require an individual to discontinue driving.

Driver Licensing Practices in Tennessee

In Tennessee, an elderly driver age 80, can renew his/her driver's license online without a vision screening, cognitive assessment, or a driver's road test. Tennessee is one of 20 states that does not have any screening requirements for senior adults, age 65 and over, to renew their license. While age is not indicative of whether an individual can still drive at 65 or 70, it is necessary first to be able to operate a vehicle safely. Restricting some drivers may be necessary when they have diminished or reduced cognitive abilities or vision impairments caused by cataracts, macular degeneration, or glaucoma.

Lack of Alternative Transportation

While alternative transportation options are being developed for some rural counties in Tennessee, other counties don't have many options. There will be a greater need for alternative transportation as the state nears 2030, and senior adults represent as much as 22 percent of the state's population. Additional support and resources will eventually need to be allocated to deal with those who chose to discontinue their driving due to safety concerns.

Resistance and Negativity

Many Tennesseans don't feel comfortable denying a senior his/her driver's license. While no one wants to deny anyone the freedom to drive, the driver must be able to drive safely at all times. That is why the THSO is currently working with occupational therapists who are Certified Rehabilitative Driving Specialists to assess the vision, cognition, and driving skills of referred seniors. Important information will be obtained to determine what medical conditions may require revocation of a driver's license. Others may benefit from an adaptive device and training, which in turn will enable them to continue driving safely.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	L.E.A.D.S. Trained	2021	Annual	60.00

Countermeasures and Planned Activities

Countermeasure Strategy: Communication and Education

Program Area: **Older Driver**

Project Safety Impacts

It is necessary to increase education and outreach to older individuals at local community senior centers to reduce fatalities related to traffic crashes. Many of these seniors are between the ages of 55 and older. The training and outreach focus on how the impact of aging and the presence of medical conditions can influence their ability to drive safely. Programs will be provided to enhance the driver experience, maximize safety, and ensure the timely treatment to those individuals involved in a car crash

Linkage Between Program Area

The THSO is collaborating with multiple partners on strategies that will reduce older driver serious injury crashes and fatalities on Tennessee roadways. These strategies address all the events of the Haddon Matrix, which include pre-event, event, and post-event. The aim of the older driver program for Tennessee maximizes older driver safety to ensure continued safety on our roadways.

Rationale

According to *Countermeasures That Work, Ninth Edition*, the THSO utilizes many strategies that are effective. They are:

- Communication and outreach - 1.2 General communications and education
- Licensing - 2.2 Referring older drivers to licensing agencies
- Traffic law enforcement - 3.1 Law enforcement roles

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
OD-21-00	Communication and Education

Planned Activity: Communication and Education

Planned activity number: **OD-21-00**

Planned Activity Description

The planned activity is to fund older driver safety projects that involve the collection and analysis of data on older drivers, which include the following: expansion of the Car-Fit program, No-Zone Truck safety presentations, and the purchase of materials to support community programs.

Intended Subrecipients

Intended subrecipients will be determined after all FFY 2021 application reviews have been completed as well as data analysis.

Funding Sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Community Traffic Safety Project (FAST)	\$52,173.00	\$10,434.60	\$52,173.00

Program Area: Training

Description of Highway Safety Problems

In 2019, Tennessee recorded 247,220 crashes, with over 71,218 injuries and 1,175 people losing their lives on Tennessee roadways. Bad driving behaviors such as alcohol and/or drug use, speeding, aggressive driving, and distractions contributed to many of these crashes.

To combat this problem, the THSO has been and continues to be, committed to providing law enforcement officers with quality training that adheres to the standards established by the Peace Officers Standards of Training (POST) Commission. Tennessee offers extensive, formalized training on traffic safety issues for law enforcement officers through support from the LEL training program.

The LEL training program provides standardized, statewide training offering quality content and methods that are specific to the laws of Tennessee. Training allows interaction with law enforcement networks and offers live updates on trends within their respective areas and training needs that may require immediate attention. This coordinated effort will improve law enforcement personnel's overall response to highway traffic safety and equip them with the specialized knowledge and training to address traffic safety in the communities they serve. Training is coordinated and monitored by the THSO LEL Training Coordinator.

The training coordinator manages both the short-term and long-term planning of all training courses offered by the THSO. The Training Coordinator answers directly to the LEL Administrator and works closely with all other LELs to determine courses being offered, the implementation of new courses, the locations of courses, and the advertisement and recruitment of attendees for courses. Locations selected to provide THSO training are determined based upon need and geographical location.

In addition to the training coordinator, the LEL program has a dedicated DRE/ARIDE State Coordinator. He is responsible for the oversight of the DRE Program, which includes scheduling and organizing all classes and locations; Field certification dates, locations, and contracts involved with lodging; Maintaining certification of DRE's statewide through in-service opportunities and instructor checkoff locations.

The ARIDE State Coordinator oversees all classes, instructors, and ensures the integrity of the Advanced Roadside Impaired Driving Enforcement program.

There is no cost to train law enforcement professionals who meet current course prerequisites.

The LEL Training Program includes 35 different training courses. The THSO offers more than 90 classes per year. The training courses include:

- Standardized Field Sobriety Training (SFST)
- SFST Refresher
- SFST Instructor
- Advanced Roadside Impairment Driving Enforcement (ARIDE)
- Drug Recognition Expert (DRE)
- DRE Pre-School
- DRE In-Service
- DRE Instructor
- At-Scene Crash Investigations
- Advanced Crash Investigations
- Crash Reconstruction Investigations
- Radar Lidar Certification
- Radar Lidar Instructor
- Child Passenger Safety Technician (CPST)
- CPST 6-hour CEU
- CPST 8-hour Re-new
- Utilizing Social Media Effectively in Law Enforcement
- Law Enforcement Instructor Development
- STOPS Instructor
- STOPS Instructor Recertification
- Survival Spanish for Law Enforcement
- Motorcycle Safety and Enforcement
- Law Enforcement Aging Driving Specialist (LEADS)
- Leadership of a Traffic Safety Unit
- Road Safety Assessments and Engineering
- Law Enforcement Role in Older Drivers Safety
- Distraction Overload for First Responders
- Electronic Data Capture (TITAN)
- Traffic Safety Data Accessibility
- Protecting Lives Saving Lives
- COPS in Court
- 20 / 20 Understanding the Physiology of the Eye Movement.
- Pedestrian. Bicycles and Motor Vehicles
- Best Practices in Teen Safety

The THP and the Tennessee Traffic Safety Resource Prosecutors will also assist with training impaired driving-related courses such as TITAN, SFST, ARIDE, DRE, and prosecutor training.

Associated Performance Measures

Fiscal Year	Performance Measure Name	Target End Year	Target Period	Target Value
2021	Classroom Attendance	2021	Annual	85.00
2021	ARIDE Trained	2021	Annual	240.00
2021	SFST Trained	2021	Annual	400.00
2021	DRE Trained	2021	Annual	60.00

Countermeasures and Planned Activities

Countermeasure Strategy: Training

Program Area: **Training**

Project Safety Impacts

By providing training in all of the areas listed above, law enforcement officers are better equipped to help prevent fatalities and serious injury crashes before they occur.

Linkage Between Program Area

The THSO training program provides individuals within the highway safety community the necessary tools to make Tennessee roadways safer. As more safety advocates are educated, and driver behavior improves, there will be a decrease in the number of crashes, injuries, and fatalities.

Rationale

Training will improve highway safety advocate's knowledge about different aspects of highway safety. Providing specialized traffic safety training to safety advocates has an enormous and far-reaching impact on traffic safety in the state

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
LEL-21-00	Law Enforcement Liaison Program
OTR-21-00	Other (Training)

Planned Activity: Law Enforcement Liaison (LEL) Program

Planned activity number: **LEL-21-00**

Planned Activity Description

The LEL program provides short and long-term planning, along with management practices from the Police Traffic Services program in Tennessee. The program utilizes four LELs, inclusive of a Senior LEL, located regionally throughout the state along with a Statewide Training Coordinator, a Statewide DRE/ARIDE Training Coordinator, and an LEL Administrator. The THSO offers a wide range of traffic safety training to law enforcement officers and other traffic safety advocates and stakeholders. The program provides coordination for all major campaigns funded by federal, state, and local resources including, but not limited to, the Holiday Impaired Driving Campaign, the Memorial Day Click It or Ticket Campaign, and the Labor Day Booze It or Lose It Campaign. The Statewide Training Coordinator, Statewide DRE and ARIDE Training Coordinator, and each regional LEL have training responsibilities related to highway safety enforcement and prevention:

- SFST,
- ARIDE,
- DRE,
- Law Enforcement Challenge Program,
- Other law enforcement trainings,

- Child passenger safety,
- “Below 100” instructors,
- Southern Shield, and
- Operation Hands Free

The LELs conduct network meetings within their respective regions to convey trends, progress, and other highway safety-related information to law enforcement and other highway safety advocates across the state. The program also assists grantee agencies in meeting their goals within highway safety and maintains a communication link between the agencies and program managers within the THSO

Intended Subrecipients

The intended subrecipient of this planned activity is The University of Tennessee, Knoxville. The funding for this planned activity, along with the requested major purchases and dispositions, can be found in the Police Traffic Services section.

Planned Activity: Other (Training)

Planned activity number: **OTR-21-00**

Planned Activity Description

The planned activity is to fund agencies that will help with other trainings (outside of the THSO) throughout the state to help decrease injuries and fatalities on roadways

Intended Subrecipients

The intended subrecipients for this activity will be the Tennessee Association of Chiefs of Police and the Tennessee Sheriff’s Association.

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	\$80,000.00	\$16,000.00	\$80,000.00

Evidence-based Traffic Safety Enforcement Program (TSEP)

Planned activities that collectively constitute an evidence-based traffic safety enforcement program (TSEP)

Unique Identifier	Planned Activity Name
AL/ID-21-00	Enforcement (AL/ID)
DD-21-00	Enforcement (DD)
M2HVE-21-00	Enforcement (OP)
MC-21-00	Specialized Motorcycle Safety Enforcement
PT-21-00	Enforcement (PT)

Analysis of crashes, crash fatalities, and injuries in areas of highest risk

Crash Analysis

Tennessee follows the three E's model of highway safety – enforcement, engineering, and education – which is in alignment with the Strategic Highway Safety Plan.

Enforcement is the foundation of Tennessee's Highway Safety Plan (HSP); this is demonstrated throughout the program areas. Data efforts are detailed throughout the HSP. For instance, data is utilized so the state can identify locations for traffic enforcement activity; afterward, data from these efforts help determine the state's effectiveness in accomplishing its goal to reduce crashes and fatalities. Program strategies have been chosen based upon countermeasures that are known to be effective. This allows law enforcement to be proactive as opposed to the more traditional practice of being reactive after a crash occurs. Activities and techniques such as sobriety checkpoints, saturation patrols, and participation in campaigns provide enforcement action relative to locations identified by crash and belt data.

Deployment of Resources

Funding is based upon established processes for project selection and development, which is outlined in the section, Highway Safety Plan Process, and through the use of a ranking and allocation tool that ensures specific counties are funded due to the frequency, rate, and problems that persist in the community as a result of traffic-related crashes, deaths, and injuries. Moreover, locations are funded on a comparable basis considering the extent of weighted fatal, injury and property damage only crashes, alcohol-related crashes, 15-24 aged driver crashes, 65+ aged crashes, speeding crashes, motorcycle crashes, population, and vehicle miles of travel (VMT) in each county. Comparable basis refers to normalizing the county numbers relative to that of the county with the highest value. The results are comparatively used when going through application selection for funded projects. Areas identified as high risk are addressed first in the application selection process. This is to assure the agencies that show significant problems are reviewed, and a strategy is proposed to address those problem areas identified.

Effectiveness of Monitoring

Project Management

The THSO staff maintains regular contact via telephone, email/written correspondence, and on-site monitoring visits with subgrantees throughout the course of the grant year to ensure compliance with applicable requirements and cost principles. This monitoring includes not only the review and approval of claims and status/final reports but also the ongoing oversight of grantees through desk monitoring and/or on-site visits. This oversight helps the program manager answer grant management-related questions, provide technical assistance, identify and help address problems and/or concerns, and adjust the plan. These adjustments may include employee allocation, hours worked versus time of day, productivity, or methods of deploying enforcement activity. All documentation generated as a result of these contacts is placed in the grantee's file. This will ensure all protocols are in place as the THSO reviews the agency's plan of action.

Monitoring, Follow-Up, and Adjustments

A THSO Program Manager visits every grantee that has been awarded a grant of \$10,000 or more at least once during the grant year (typically between February and mid-August) to conduct a systematic and comprehensive programmatic and financial assessment. The visit will be scheduled at least two weeks in advance, and a preparation sheet that details how to prepare for the on-site visit is provided electronically. Also, a link to the Title VI Compliance Audit Questionnaire is emailed; this is completed before the Program Manager arrives for the monitoring visit. An unscheduled monitoring visit will occur if the agency receives a letter, which issues a finding after the annual on-site visit or if there is concern that the agency's project is showing signs of significant weakness. The follow-up visit results in an adjustment to the agency's plan.

During the programmatic portion of the visit, goals, objectives, and tasks are reviewed to determine if the project is being implemented as outlined in the approved grant application. This assessment is also used to determine if the grantee has satisfied special conditions and is adhering to contract terms and conditions. The financial review includes an examination of agency and grant-specific financial documents and issues related to the implementation and performance of the project.

While on-site, the Program Manager completes the monitoring form found on the THSO's online grants management system. Once completed, the form is reviewed and approved by the THSO management. Following final approval of the monitoring form, the program manager drafts a follow-up letter that highlights exemplary activities/actions on the part of the grantee and recommendations for improvement within 30 days following completion of the assessment. If the letter includes findings, an additional on-site visit(s) may be scheduled. The THSO maintains an electronic copy of the letter.

Agencies receiving less than \$10,000 will receive a desk monitoring or audit, which uses an abbreviated form. This monitoring/audit will come from their THSO program manager or an auditor from the TDOSHS. Failure to respond to a desk monitoring or audit may result in a loss of grant

funding. In rare instances, an on-site visit may be required if the agency's project shows significant weakness or non-compliance.

Due to COVID-19, a temporary policy amendment has been implemented to minimize face-to-face contact. With this, on-site monitoring may be replaced with virtual monitoring. Project eligibility will be determined by the THSO program manager based on an assessment of low risk, history of strong performance, agency not in first year of grant project, cannot be newly assigned project director, and is able to utilize the appropriate technical resources to allow for a successful virtual monitoring.

High-Visibility Enforcement (HVE) Strategies

Planned HVE strategies to support national mobilizations

Countermeasure Strategy

Impaired Driving Enforcement

Occupant Protection Enforcement

Police Traffic Enforcement

HVE planned activities that demonstrate the State's support and participation in the National HVE mobilizations to reduce alcohol-impaired or drug-impaired operation of motor vehicles and increase the use of seat belts by occupants of motor vehicles:

Unique Identifier	Planned Activity Name
AL/ID-21-00	Enforcement (AL/ID)
DD-21-00	Enforcement (DD)
M2HVE-21-00	Enforcement (OP)
MC-21-00	Specialized Motorcycle Safety Enforcement
PT-21-00	Enforcement (PT)

Appendices

State of Tennessee Traffic Records Strategic Plan for FFY2021



July 1, 2020

State Traffic Safety Information System Improvement

Adopted by the TRCC Technical Committee on June 3, 2020

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Tennessee Traffic Records Strategic Plan

1. Executive Summary

The Tennessee Traffic Records Strategic Plan describes the goals, strategies, and desired outcomes for improving Tennessee's traffic records core data systems. This plan includes projects that will implement these improvements as selected by the Tennessee Traffic Records Coordinating Committee.

The State of Tennessee Traffic Records Coordinating Committee (TRCC) is comprised of stakeholders in the traffic safety community. These stakeholders include highway safety, traffic records data system managers, traffic records data collectors, and local and state law enforcement. Each of the core traffic records data systems are represented within the State of Tennessee TRCC. These data systems consist of Crash, Driver, Vehicle, Roadway, Citation/Adjudication, and Injury Surveillance.

In the past decade, Tennessee's traffic records data systems have undergone NHTSA-sponsored assessments in order to identify areas for improvement. As a result of these assessments, Tennessee has developed traffic records data system projects designed to address the assessment recommendations.

The 2019 traffic records assessment resulted in a new set of recommendations. Updated responses are included in the current FFY2021 Traffic Records Strategic Plan which is provided later.

In the first half of CY 2017, the THSO and the TRCC undertook an effort to improve the state's traffic records strategic planning efforts. These efforts consisted of updating system descriptions to reflect current systems; revisiting the assessment results and recommendations; holding workshops with data system managers and stakeholders; identifying goals for improvements; and developing strategies to achieve those goals.

In CY2018 and again in 2019, the strategic planning document was updated to reflect progress towards accomplishing the goals as laid out in the original plan. The result is an updated strategic planning document that reflects current progress and can be used by the TRCC, data system managers, and decision makers to guide the prioritization and funding of improvements to Tennessee's traffic records data systems.

Recent improvements to the State's traffic records data systems include:

- The TRIMS Crash Location Automated Updater is being updated to provide more timely data transfer to TRIMS. This process assists in eliminating the backlog of crash data by validating crash data from TDOS and automatically updates the route location in the TITAN database. Currently, downloads are performed on a periodic basis via a manual download process. The process under development will allow automated database queries of the TITAN systems from TRIMS.

- The Tennessee Traffic Information Management and Evaluation System (TNTIMES) was recently implemented to enhance the storage and analysis of roadway traffic and related data. This replaces the previous system and a seamless transfer of data has been implemented. This web-based application uses MS2 system technology and is being made available to all stake holders. Traffic counts currently being entered into the system include Volume counts – strategically stationed short-term counts using pneumatic road tubes; classification counts, and continuous counts. It is envisaged that traffic counts from other systems will be integrated into the system including Weigh In Motion data and Radio Data Systems (RDS) data. Also, the system can be upgraded to include Non-motorized data and can be used for analyzing HPMS related data for Federal reporting.
- The Tennessee TRCC completed a strategic goal derived from the NHTSA Traffic Records Assessment by developing a Traffic Records Inventory document that is intended to be a consolidated reference of the Tennessee Traffic Records Data Systems. The TRCC, state agencies, and highway safety stakeholders can reference this document when planning improvements to the component data systems that will provide increased highway safety analysis capabilities. The document will provide the reader with data governance information and will be a reference for system documentation, data dictionaries, and user documentation. The document will be used as part of the TRCC's efforts to improve the accessibility, completeness, uniformity, accuracy, integration, and timeliness of Tennessee's traffic records data.
- Tennessee Integrated Traffic Analysis Network (TITAN) fatal crash data are now available via TDOSHS online dashboards and the THSO website. Primary users are traffic safety professionals, law enforcement, and the general public. This project has increased the accessibility of fatal crash data within the State. The dashboards are updated daily. Additional dashboards are planned for FY2021.
- In 2020, THP continued to work toward statewide implementation of its eCitation program which was started in 2014. The program included 93 counties as of April 2020. In addition, all 93 counties are auto-importing eCitation data and ticket images to the court clerks electronically. This saves THP and the court clerks countless hours of hand-keying citation data into law enforcement and court records management systems and has substantially increased timeliness, data accuracy, and completeness.
- THP implemented a new Fatality Tracking System (FTS) in 2018. This has allowed the State to more easily track and report timely statistics relating to traffic fatality data at the State level. It also improved the accuracy, efficiency, and timeliness of reporting traffic fatality data to NHTSA. Work continues to improve the FTS system and to provide almost seamless integration with the TITAN crash database.

In summary, a complete and comprehensive state traffic records system is essential for effective traffic-related injury control efforts. Traffic records provide the necessary information for tracking of trends, planning, problem identification, operational management and control, and implementation and evaluation of highway safety programs.

Any grant funds awarded under FAST Act, Section 405c shall be used to make quantifiable, measurable progress improvements in the accuracy, completeness, timeliness, uniformity, accessibility, or integration of data in a core highway safety database.

2. Mission & Vision Statements

2.1 Mission Statement

The Tennessee Traffic Records Coordinating Committee's mission is to promote and guide improvements to the State's traffic records data systems. These efforts will provide highway safety professionals and stakeholders the analysis they require to effectively develop, deploy, and evaluate safety countermeasures that reduce motor vehicle crashes, injuries, and deaths within the State.

2.2 Vision Statement

The TRCC's vision for Tennessee's traffic records data systems is to provide highway safety stakeholders with the information and advanced analysis capabilities needed to implement effective safety countermeasures that reduce crashes and their resultant costs, injuries, and deaths.

To make this vision a reality, Tennessee's traffic records data systems will need to provide the timeliest, most accurate, complete, uniform, accessible, and integrated data to the highway safety community.

3. Traffic Records Coordinating Committee

3.1 TRCC Charter



State of Tennessee
Traffic Records Coordinating Committee Charter
Executive and Technical

Whereas the State of Tennessee and local government agencies have concluded and recognized the need to create and maintain a committee to assist with the integration of traffic records information to enhance decision making in order to save lives and reduce injuries on Tennessee roadways, the following Charter is hereby established to help in the direction of the said Committee as agreed upon by the participating agencies.

A. Objective

To provide an inter-agency traffic crash committee composed of voting members from the Tennessee Department of Safety, Health, Finance, Education, and Transportation including various other outside agencies whose purpose is to provide executive direction on all matters related to the Tennessee Traffic Crash System.

B. Goals

To improve the timeliness, accuracy, completeness, uniformity, integration, and accessibility of the data of the state that is needed to identify priorities for national, state, and local highway and traffic safety programs.

To provide for the comprehensive collection, maintenance and dissemination of Tennessee traffic safety related data in order to set the direction for traffic safety improvement measures.

To ensure the Crash and other traffic related redesign projects move forward on schedule and within budget.

C. Executive Committee Authority

The Executive Committee of the Traffic Records Coordinating Committee operates under the authority of the Governor's Traffic Safety Advisory Commission (GTSAC) and shall consist of voting members from the Tennessee Departments of Health, the Department of Safety, the Department of Finance, the Department of Transportation, State Legislature, the Governor's office and representatives of the State Sheriff and Police Chief Associations.

Each member shall serve at the discretion of their Department Director and shall have the authority to authorize changes to/expenditure of agency funds to support the Tennessee Traffic Crash System.

Committee membership shall be determined by each agency and the Executive Committee of the Traffic Records Coordinating Committee shall exist until such time as the GTSAC resolves to dissolve the commission by a consensus vote.

A committee Chair will be appointed on an annual basis and will meet to coordinate and provide oversight to the Traffic Records Technical Committee.

D. Executive Committee Purpose

To evaluate the effectiveness of efforts to make such improvements.

To provide oversight to link state data systems within the state, such as systems that contain medical and economic data with Crash information.

To provide oversight to investigate linking Crash data to other Crash data systems within the state with information relevant to crashes (medical or economical).

To ensure the Crash and other traffic safety related re-design projects meet and/or exceed the expectations of the above stated purposes.

To provide oversight to the development of the State's GIS statewide mapping system.

E. Executive Committee Duties and Responsibilities

The duties of the Executive Committee of the Traffic Records Coordinating committee include but are not limited to:

- Providing executive direction and oversight for the current Crash system;

- Providing executive direction and oversight for the Crash and other traffic safety improvement projects;

- Developing consensus among agencies for system direction;

- Providing leadership and direction the Technical Coordinating Action Team (Traffic Records Coordinating Committee);

- Obtaining input from the Technical Coordinating Action Team;

- Forming technical sub-committees as appropriate;

- Authorizing the expenditure of grant funds and other agency funds as appropriate in order to support and improve the Tennessee Traffic Safety related systems.

F. Traffic Records Coordinating Committee Authority

The TRCC Technical Committee primary authority is established by the working members of the TRCC Executive Committee and assigned to the Technical Committee as required to complete the said projects for the integration and enhancement of Traffic Records in the State of Tennessee. In recognition, that the efforts in one system may have either positive or negative impacts upon other systems or users, the Executive TRCC at least annually, shall approve a Traffic Safety Information System Strategic Plan that has been developed through this process and which assures that all identified projects are incorporated within the plan before implementation.

G. Traffic Records Coordinating Committee Purpose

Providing technical direction and oversight for the current Crash system improvements.

Providing technical direction and oversight for all traffic safety related improvement projects.

Developing consensus among agencies of system direction.

Providing leadership and direction to other Technical Coordinating Action Team members.

H. Traffic Records Coordinating Committee Duties and Responsibilities

The duties of the Technical Coordinating Committee of the TRCC include but are not limited to:

- Provide the coordination support for the various projects to reach the stated goals;

- Provide the technical project management support for the direction provided by the Executive Committee;

- Provide the direction for the Crash forms redesign and implementation;

- Provide the technical support for the TITAN data base and acceptance of electronic forms;

- Obtain input from the various state and local agencies to coordinate the data collection and analysis tools;

- Establish critical timelines for various aspects of approved projects;

- Develop the budgetary guidelines for the various projects.

The Technical Committee will establish two alternating co-chairs on which will be elected on alternating years.

The Technical Committee will consist of various state and local agency personnel that are responsible for the timeliness and analysis of crash data components.

Technical Committee members will serve on designated sub-committees. The Technical Committee will nominate and approve two Committee Co-Chairs to provide direction and

coordinate the activities of the State of Tennessee Traffic Records Coordinating Committee and the Governor's Highway Safety Office will provide the administrative Vice Chair. The Co-Chairs will have staggered terms to provide continuity and transition and will administrate based upon the Federal Calendar Year. A nominating committee will be established of three members and be headed by the outgoing Co-Chair.

3.2 Traffic Records Improvement Program Coordinator

Name: Ms. Rhiannon Chambers

Title: Program Manager

Agency: Tennessee Highway Safety Office

Office: Tennessee Highway Safety Office

Address: 312 Rosa Parks Avenue

City, Zip: Nashville 37243

Phone: (615) 253-1063

Email: Rhiannon.Chambers@tn.gov

3.3 TRCC Committee Members

Name / Title	Agency	System Represented
Allen England <i>Lieutenant</i>	Tennessee Highway Patrol	Law Enforcement / Adjudication
Amanda Hughes <i>Application Support Mgr/ Court Clerk Liaison</i>	Administrative Office of the Courts	Court Information
Andy Miller <i>Sergeant</i>	Smyrna PD	Stakeholder
Ann Lynn Walker <i>IT Manager</i>	Administrative Office of the Courts	Court Information
Benjamin Crumpler <i>Statistical Research Specialist</i>	Office of Injury Surveillance	Trauma / Injury Surveillance
Billy Smith <i>Lieutenant</i>	Tennessee Highway Patrol	Crash
Brandon Darks <i>Transportation Manager</i>	Tennessee Department of Transportation	Roadway
Brandon Douglas <i>Major</i>	Tennessee Highway Patrol	Law Enforcement / Adjudication
Casey Langford <i>Planning Manager</i>	Tennessee Department of Transportation	Roadway
Chris Broome <i>NHTSA Southeast Regional Coordinator</i>	NHTSA Program Manager	Stakeholder
Chris McPhilamy <i>Planning Manager</i>	Tennessee Department of Transportation	GIS
Christopher Armstrong <i>Transportation Manager</i>	Tennessee Department of Transportation	Roadway
Christopher Osbourn <i>TITAN Program Director</i>	Tennessee Department of Safety & Homeland Security	Crash
Dana Bruce <i>THP Project Manager</i>	Tennessee Department of Finance & Administration	Crash
David Lee <i>Assistant Director</i>	Tennessee Department of Transportation	Roadway

Name / Title	Agency	System Represented
Deborah Betancourt <i>Business Domain Director</i>	Tennessee Department of Finance & Administration	Vehicle
Deborah Stewart <i>ICJP Coordinator</i>	Administrative Office of the Courts	Court Information
Dereck Stewart <i>Colonel</i>	Tennessee Highway Patrol	Crash
Dianne Peoples <i>Administrative Services Assistant II</i>	Tennessee Department of Safety & Homeland Security	Stakeholder
Donna Tidwell <i>Director</i>	Tennessee Department of Health	Pre-Hospital EMS
Doug Taylor <i>Major</i>	Tennessee Highway Patrol	Crash
Frank Sousoulas <i>Sergeant</i>	Memphis Police Department	Law Enforcement / Adjudication
Freida Cameron <i>Safety Examiner Supervisor 2</i>	Tennessee Department of Safety & Homeland Security	Stakeholder
Gage Hatfield <i>Assistant II</i>	Tennessee Department of Safety & Homeland Security	FARS
Gary Ogletree <i>Transportation Manager</i>	Tennessee Department of Transportation	Roadway
Gary Shirley <i>EMS Data Manager</i>	Tennessee Department of Health	Injury Surveillance
Gregory Feldser <i>FARS Supervisor</i>	Tennessee Department of Safety & Homeland Security	FARS
Jamie Whelan <i>Assistant III</i>	Tennessee Department of Safety & Homeland Security	FARS
Jeff Cooper <i>Tennessee Division State Program Specialist</i>	Federal Motor Carrier Safety Administration, Tennessee Division	Stakeholder
Jeff Murphy <i>Transportation Manager</i>	Tennessee Department of Transportation	Roadway TRCC Co-Chair

Name / Title	Agency	System Represented
Jessica Rich <i>Safety Engineer</i>	Federal Highway Administration	Roadway
Jessica Wilson <i>Bike/Ped Coordinator</i>	Tennessee Department of Transportation	Stakeholder
Jessie Loy <i>Officer</i>	Metro Nashville Police Department	Stakeholder
John Eslick <i>IT Manager</i>	Metro Nashville Police Department	Stakeholder
Clay Bright <i>Commissioner</i>	Tennessee Department of Transportation	Stakeholder
Kedra Woodard <i>Statistical Analyst</i>	Tennessee Department of Safety & Homeland Security	Crash
Kim VanAtta <i>Program Manager</i>	Tennessee Highway Safety Office	Stakeholder
Lindsay Witter <i>Intelligence Analyst</i>	Tennessee Department of Safety & Homeland Security	Stakeholder
Lisa Cavender <i>Circuit Court Clerk</i>	State Court Clerk's Association of Tennessee	Court Information
Lisa Knight <i>Handgun Director</i>	Tennessee Department of Safety & Homeland Security	Stakeholder
Mark Bengal <i>CIO</i>	Tennessee Department of Finance & Administration	Stakeholder
Mark Proctor <i>Captain</i>	Tennessee Highway Patrol	Crash
Marty Pollock <i>Lieutenant</i>	Tennessee Highway Patrol	Crash
Mary Connelly <i>Lead Planner</i>	WSP Global, Inc.	Stakeholder
Michael Hogan <i>Director</i>	Tennessee Department of Safety & Homeland Security, Driver License Division	Driver License / History

Name / Title	Agency	System Represented
Michael McAlister <i>Lieutenant Colonel</i>	Tennessee Highway Patrol	Crash
Michael Skipper <i>Director</i>	Greater Nashville Regional Council	Stakeholder
Narendra Amin <i>Statistical Analyst</i>	Tennessee Department of Safety & Homeland Security	Crash
Pamela Heimsness <i>Safety, Traffic Operations & PMA Team Leader</i>	Federal Highway Administration	Stakeholder
Patrick Dolan <i>Statistics Office Manager</i>	Tennessee Department of Safety & Homeland Security	Crash TRCC Co-Chair
Randall Emilaire <i>Road Inventory Office Supervisor</i>	Tennessee Department of Transportation	Roadway
Raymond Gaskill <i>Sergeant</i>	Tennessee Highway Patrol	Stakeholder
Robert Pollack <i>FHWA D.C. Liaison</i>	Federal Highway Administration	Stakeholder
Robert Seesholtz <i>Trauma System Manager</i>	Tennessee Department of Health	Trauma / Injury Surveillance
Rodney Patton <i>Sergeant</i>	Knoxville Police Department	Stakeholder
Samantha Walker <i>Supervisor</i>	Tennessee Department of Safety & Homeland Security	Law Enforcement / Adjudication
Scott Pouder <i>Roadway Data Office Supervisor</i>	Tennessee Department of Transportation	Roadway
Shaun Summers <i>ASA4</i>	Tennessee Department of Safety & Homeland Security	Law Enforcement / Adjudication
Sloan Lidell <i>Sergeant</i>	Memphis Police Department	Stakeholder
Stephanie Mann <i>FMCSA Coordinator for Tennessee</i>	Federal Motor Carrier Safety Administration, Tennessee Division	Stakeholder

Name / Title	Agency	System Represented
Steve Allen <i>Transportation Director</i>	Tennessee Department of Transportation	Roadway
Terri Muhlstadt <i>Director</i>	Tennessee Department of Safety & Homeland Security	Stakeholder
Thomas Smith <i>Grant Manager</i>	Tennessee Department of Safety & Homeland Security	Driver License / History
Tom W. Moore <i>Senior Project Director</i>	Tennessee Department of Finance & Administration	Vehicle
Clyde Lewis <i>Director</i>	Tennessee Highway Safety Office	Stakeholder
Vickie Mason <i>ASA3 Supervisor</i>	Tennessee Department of Safety & Homeland Security	Crash
Wayne Deason <i>ASA4</i>	Tennessee Department of Safety & Homeland Security	Law Enforcement / Adjudication
William Head <i>Sergeant</i>	Tennessee Highway Patrol	Crash
William Porter <i>Sergeant</i>	Memphis Police Department	Stakeholder

3.4 TRCC Functions

(2) Functions. The traffic records coordinating committee shall:

(i) Have authority to review and of the State's highway safety data and records systems and any changes to such systems before the changes are implemented.

Individual TRCC members representing various state agencies participate in the TRCC committee. These individuals have the authority within their respective agencies to review changes to traffic records systems for which their agencies are responsible for maintaining. There is often discussion at TRCC meetings regarding changes to systems and how those changes may impact other state agencies and improve traffic records systems statewide.

(ii) Consider and coordinate the views of organizations in the State that are involved in the collection, administration, and use of highway safety data and traffic records systems, and represent those views to outside organizations.

The TRCC represents the views of the state traffic records systems and its members are the authority regarding collection, administration, and use of highway safety data for Tennessee. They represent and discuss traffic records systems in Tennessee to the State Legislature, other state agencies, the public, media, and those in private industry.

(iii) Review and evaluate new technologies to keep the highway safety data and traffic records system current.

Members of the TRCC attend various training and conferences nationwide to stay current with traffic records system technologies and equipment used for collection, retention, and dissemination of highway safety data. Some conferences attended last year include engineering conferences, American Association of Motor Vehicle Administrators (AAMVA) conferences, Association of Transportation Safety Information Professionals (ATSIP) Traffic Records Forum, International Association of Chiefs of Police (IACP) Law Enforcement Information Management (LEIM) conference, IACP annual conference, TN GHSO and National Lifesavers conferences, GHSA Annual Meeting and many others. These meetings and conferences include speakers on traffic records topics and often include vendors and exhibitors displaying the most current technologies available.

(iv) Approve annually the membership of the TRCC, the TRCC Coordinator, any change to the State's multi-year Strategic Plan required under paragraph 'c' of this section, and performance measures to be used to demonstrate quantitative progress in the accuracy, completeness, timeliness, uniformity, accessibility or integration of a core highway safety database.

The State TRCC annually approves membership, the TRCC co-chairs, and the Strategic Plan. In addition, new performance measures have been added and updated to the strategic plan this year to improve Tennessee's demonstration of quantitative progress in the traffic records systems. These are addressed throughout the strategic plan.

3.5 TRCC Operation

(The legislation & Federal Register call for certification that the TRCC continues to operate. Please provide the following information about your TRCC’s structure and operation.)

<i>Do you have an executive (policy level) TRCC?</i>	Yes
<i>If so, how often does it meet?</i>	Quarterly
<i>Do you have a technical (working level) TRCC?</i>	Yes
<i>If so, how often does it meet?</i>	Quarterly
<i>Does your TRCC have in place documents that demonstrate that the TRCC meets the following requirements of the legislation & Federal register?</i>	Yes
<i>The TRCC has the authority to approve the Strategic Plan.</i>	Yes
<i>The TRCC has the authority to review any of the State’s highway safety data and traffic records systems and to review changes to such systems before the changes are implemented.</i>	Yes
<i>The TRCC includes representative from highway safety, highway infrastructure, law enforcement and adjudication, public health, injury control and motor carrier agencies and organizations.</i>	Yes
<i>The TRCC provides a forum for the discussion of highway safety data and traffic records issues and report on any such issues to the agencies and organizations in the State that create, maintain, and use highway safety data and traffic records.</i>	Yes
<i>The TRCC considers and coordinates the views of organizations in the State that are involved in the administration, collection and use of the highway safety data and traffic records systems.</i>	Yes
<i>The TRCC represents the interests of the agencies and organizations within the traffic records system to outside organizations.</i>	Yes
<i>The TRCC reviews and evaluates new technologies to keep the highway safety data and traffic records systems up to date.</i>	Yes

3.6 Past TRCC Meetings

Tennessee held TRCC meetings on the following dates:

September 12, 2019

December 12, 2019

March 12, 2020

June 11, 2020

3.7 Future TRCC Meeting Schedule

The future TRCC meetings are tentatively scheduled for:

September 10, 2020

December 10, 2020

March 11, 2021

June 10, 2021

3.8 NHTSA Traffic Records Assessment

The State completed a NHTSA Traffic Records Assessment on April 10, 2019. The State's response to each recommendation is listed in Section 4. If a project plans to address a recommendation within the next FFY plan year, the related project is listed. See related project for performance measures.

4. Traffic Records Strategic Plan

4.1 Tennessee Traffic Records Coordinating Committee

4.1.1 TRCC Overview

Tennessee's Traffic Records Coordinating Committee (TRCC) is comprised of two membership tiers, Executive and Technical levels, that meet as one group quarterly to address coordination of traffic safety data and initiatives for the State. The Committee has been formalized by a Charter and, for the most part, has representation for each data system at both the technical and executive level. The TRCC is responsible for the development and oversight of the Strategic Plan for Traffic Records for the State.

Coordination of the traffic records system is a multi-faceted effort that involves development of relationships between component representatives. This coordination provides for a full understanding of the various aspects of traffic records, their impact on traffic safety initiatives and how each of the component systems can best interact to make informed decisions about traffic safety initiatives and programs.

Over the past three years, the Tennessee TRCC has developed a Traffic Records Inventory document that is intended to be a consolidated reference of the Tennessee Traffic Records Data Systems. The TRCC, state agencies, and highway safety stakeholders can reference this document when planning improvements to the component data systems that will provide increased highway safety analysis capabilities. The TRCC continues to update the document to provide the users with data governance information and include system documentation, data dictionaries, and user documentation. The document will be used as part of the TRCC's efforts to improve the accessibility, completeness, uniformity, accuracy, integration, and timeliness of Tennessee's traffic records data.

In the past, the TRCC developed performance measures to address various projects that are funded through traffic records grants, but individual respondents in this reported having no performance measures. Data quality improvement is highly dependent upon meaningful data quality programs and measures. Effective management of data collection and data systems is nearly impossible without performance measures that are monitored and reported regularly. Many of the respondents reported that they believe that measurements are unnecessary due to the large number of edit and validation checks that the data undergoes as it is entered into the various systems. Unfortunately, although edit checks have a great deal of impact on data accuracy and completeness, edit checks alone cannot guarantee that errors or omissions will be eliminated. It is possible that an officer who cannot submit a report due to missing data will choose not to submit the report at all. In that situation, the individual data field that may have been incomplete is no longer a system error. The lack of completeness now stems from the missing report. Monitoring of data not only helps to assess where progress has been made, but also can point to degradation of data quality as well. Effective review of process flows can also find inefficiencies and lead to improvement of data transmission and error handling for electronic processes. The TRCC is an excellent forum for discussion of such issues. After the 2019

assessment, data system managers of several component systems committed to the creation of performance measures for their respective systems.

Besides information sharing and collaboration, the TRCC is responsible for technical assistance and training of traffic records professionals. Tennessee discusses these issues at its meetings, but a formal training needs assessment would help to galvanize the effort and clarify specific issues to be addressed.

4.1.2 Assessment Recommendations

There were no recommendations for the Traffic Records Coordinating Committee Management from the Tennessee's 2019 Traffic Records Assessment.

4.1.3 TRCC Goals

Goal 1: Update the TRCC charter, goals and committee functions to best reflect the current plans..

Strategy: The TRCC chair will establish a subcommittee to review the current charter and make recommendations to the TRCC for changes that will better reflect the current functions and activities of the committee.

Outcome: The revised charter will more accurately reflect the business purposes of the committee.

Activity: None. A review is underway. The TRCC chair will recommend changes by July 1, 2020.

Goal 2: Develop at least one performance measure per traffic records data system.

Strategy: The TRCC will request that each component data system develop, track, and report to the TRCC one of the six standard NHTSA performance measures.

Outcome: Increased awareness of the performance of the State's traffic records data systems. This increased awareness will allow data system managers to develop and implement improvements to system performance.

Activity: The TRCC continues to work towards improving the number of performance measures being tracked. The committee has gotten commitments from all data system owners to develop data quality performance measures as part of the current strategic plan, and most have followed through on their commitment.

Goal 3: Conduct a technical assistance and training needs assessment for traffic records data system users.

Strategy: At least once per annum, the TRCC will include an agenda item and host a discussion on traffic records data system training needs. This discussion will identify training and technical assistance needs.

Outcome: Increased timeliness and data quality through improved user interaction with the various traffic records data systems.

Activity: The TRCC still plans to develop and distribute a training questionnaire to data users and collectors to solicit input and drive discussion at a follow-up TRCC meeting. Additionally, members of the TITAN Business Unit have conducted a variety of technical training sessions since 2018 and continue to do so on request from various stakeholders across the state.

4.2 Tennessee Traffic Records Data Systems

The Tennessee Traffic Records Data Systems are comprised of the Crash, Vehicle, Driver, Roadway, Citation/Adjudication, and Injury Surveillance component data systems. This section discusses the goals that span these data systems and includes sections on the Traffic Records Coordinating Committee and traffic records system-wide data use and integration.

4.2.1 System Overview

Tennessee's traffic records data suite is comprised of various discrete data systems; driver, vehicle, citation/adjudication, crash, roadway, and several injury surveillance data systems (EMS run reporting, hospital discharge, emergency department, vital records, and trauma registry).

These data systems are in various lifecycle stages. The table below details each system and its initial deployment date along with the status of any past or planned upgrades/replacements.

Data System	System Name	Host Agency	Initial Deployment	Remarks
Driver	A-List	Driver Services Division, Department of Safety & Homeland Security	February 2015	New System
Vehicle	VTRS	Department of Revenue	Spring 2017	New System
Citation	TITAN	Tennessee Highway Patrol, Department of Safety & Homeland Security	June 2014	Continuing Rollout and Updates/Enhancements
Crash	TITAN	Tennessee Highway Patrol, Department of Safety & Homeland Security	March 2008	Last Major Update 2010, Next Planned Update 2019
Roadway	TRIMS	Department of Transportation	2014	Version 12.5 Enhancements
Roadway	TNTIME S	Department of Transportation	2020	MS2 application
EMS Run Reporting	EMITS	Department of Health	2005	Update planned
Trauma Registry	TNTR	Department of Health	2007	Last Update 2011

Traffic Records Data Use and Integration

Considerable thought and work have gone into ensuring that crash data can be integrated with Tennessee Roadway Information System (TRIMS) for analysis and mapping. This linkage of roadway, traffic, and crash data through compatible location coding is significant in providing the

data needed to develop and evaluate the Tennessee Department of Transportation's (TDOT) programs. TRIMS includes the local roadway inventory.

During validation of crash data, the vehicle data component and the driver data component are accessed for validation of descriptive and identifying information. Extensive reporting available for direct access by the public shows the ability of skilled analysts to integrate much of the traffic records system (TRS) data for problem identification and program analysis. A business intelligence program is now deployed at TDOSHS using dashboard tools to enhance and simplify direct access for end users, both those involved in traffic safety planning and data quality assurance.

There is little direct linkage in terms of the citation/adjudication data except with the Driving Under the Influence (DUI) tracking system, (i.e. TITAN DUI Tracker). Tennessee continues to pursue a project to analyze crash data with injury surveillance system (ISS) data sources. There are no examples of analyses that originate with the ISS components and then integrate other TRS data component systems, though analysts associated with hospitals, trauma centers, or the Department of Health may conduct these types of analyses.

Though there is some integration of the various traffic records data systems, in the past, there has been no formal traffic records inventory to assist with identifying parallels of data content that would suggest either immediate or future linkage for safety analyses or to identify data relevant to analyses that may otherwise remain unrecognized. With the development last year of the Tennessee Traffic Records Inventory document, a master list now exists that can facilitate the comparison of traffic records data elements and attributes that can help to identify duplicate data elements and possibly different methods of data collection for the same data elements. This compendium will allow for identifying potential linkages and suggest the most appropriate data source for analysts to use for their programs and analyses.

4.2.2 Assessment Recommendation for Data Use and Integration

There were no recommendations for data use and integration in Tennessee's Traffic Records Assessment conducted on April 10, 2019.

4.2.3 Traffic Records Goals

Goal 1: *Improve the integration of Traffic Records information to enhance decision making in order to save lives and reduce injuries on Tennessee roadways.*

Strategy: The TRCC developed a Tennessee Traffic Records Inventory that contains a master list of all Traffic Records data elements and attributes to facilitate identification of integration opportunities. The TRCC will use the inventory to identify and prioritize traffic records data integrations that will improve highway safety analysis.

Outcome: Provide an analysis view of multiple traffic records data systems to provide greater insight into highway safety issues than the individual data systems can provide separately.

Activity: TDOSHS has created a Traffic Records Inventory document and made it available to the TRCC and highway safety stakeholders. The TRCC identified integration of crash and ISS data as a promising endeavor and implemented a project to realize it. Analysts at TDOSHS and Health are working to gain the necessary data use agreements in place.

Goal 2: *To improve the timeliness, accuracy, completeness, uniformity, integration, and accessibility of the State's traffic records data needed to identify priorities for highway and traffic safety programs.*

Strategy: Develop performance measures for each traffic records data system that identify areas where timeliness, accuracy, completeness, uniformity, integration, and accessibility can be improved. Once issues are identified, develop plans and allocate resources to address system improvements.

Outcome: A traffic records suite that has the quality data necessary to address the analysis needs of the highway safety community.

Activity: Some progress has been made in increasing the number of performance measures and all data system owners have committed to develop at least one performance measure in the next year.

Goal 3: *To provide for the comprehensive collection, maintenance and dissemination of Tennessee traffic safety related data in order to set the direction for traffic safety improvement measures.*

Strategy: Highway Safety will prioritize and allocate Traffic Records funding to projects that provide the greatest improvement in the collection, maintenance, and dissemination of traffic records data.

Outcome: A traffic records data suite that provides stakeholders with comprehensive and accessible highway safety analysis.

Activity: In the FFY2021 Traffic Records Strategic Plan, the THSO selected and approved 10 projects that it believes has the greatest potential for improvement in the collection, maintenance, and dissemination of traffic records data.

4.2.4 Data Use & Integration Goals

Goal 1: *Promote TRCC discussions about improving data access, data security efforts, and future data component integration needs.*

Strategy: Add a section to the TRCC agendas to provide a discussion platform for Data Access, Data Security, and Data Integration efforts. The agencies responsible for each data system will provide updates on any related activities.

Outcome: The TRCC discussions will identify areas of improvement as it relates to data access, data security, and data integration.

Activity: The TRCC has experienced greater participation from traffic records stakeholders that has resulted in increased cooperation and discussions amongst the various data systems.

4.3 Crash Data System Plan

4.3.1 System Overview

Tennessee has a consolidated statewide database called Tennessee's Integrated Traffic Analysis Network (TITAN). The TITAN system contains data and images from the paper legacy system called the Crash Analysis Tracking System (CATS) dating back to 2003 and all new electronically submitted crash report data and images. The responsibility of this system falls under the Tennessee Department of Safety and Homeland Security's (TDOSHS) TITAN Business Unit. State statutes require crashes to be reported to the TDOSHS; written reports must be forwarded to the TDOSHS, and copies shall be kept in the various district offices of the Tennessee Highway Patrol (THP). TITAN clearly identifies the reported crashes which occur in both trafficway and non-trafficway areas. Analysis reports are generated through TITAN to monitor the incidence of fatal and serious injury crashes, to develop plans for roadway improvements and enforcement, and to develop driver behavior countermeasure programs such as alcohol-related crash prevention and distracted driving. Participating agencies may view the data via the TITAN web portal. Since January 1, 2015 all crashes have been submitted electronically.

Tennessee has implemented an electronic schema for crash-related information using MMUCC V3 guidelines, and ANSI D.16 and D.20 definitions. The schema has a uniform set of data elements with allowable values listed in the data dictionary, but not defined. Tennessee's e-crash instructional manual is available through the TITAN web portal. It includes definitions, examples, pictures (where needed), and explanations. It is continually updated as new validation rules, elements, and attributes are defined.

All agencies utilizing the TITAN e-system have the validation rules and edits embedded within the TITAN e-crash application, and they are applied prior to approval and submission. Other third-party vendor systems are also in use in the State and are required to comply with the electronic reporting standards published by the TDOSHS. To ensure third-party submissions have been updated, they are checked against the rules prior to acceptance in the TITAN database. The State keeps documentation (FARS and CVARS manual excerpts and process flow diagrams, TITAN Reporting Flowchart, and TITAN SafetyNet Design) detailing the policies and procedures for key processes governing the collection, reporting, and posting of crash data to TITAN, FARS, and SafetyNet. This documentation meets the Advisory ideal for documenting the key processes in the submission to each.

The processes for handling crash report errors and incomplete data are documented in a supplied process flow diagram at the TDOSHS database level. However, it does not document any procedures beyond "Return Report to Submitter" and there are no documented procedures for handling the return and guaranteeing the resubmission of reports from local agencies that contain errors or incomplete data. Identification and monitoring of first, second, third, etc. submission attempts would benefit the data managers and users greatly.

Interfaces between the various traffic records systems are an issue. Linkages do not exist from TITAN to the driver, vehicle, or citation/adjudication files. Plans are outlined in a contract with an outside vendor to create some of these interfaces. The TITAN system will house a new Court

Disposition Reporting (eCDR) system which will have linkages between the TITAN eCitation and eCDR components. Because the eCDR will be housed within TITAN, the possibility of linking the eCDR to the crash system is within reach. The TITAN system can capture the EMS run number when the number is available from the EMS service. The crash date, time, location, and personal identifiers are all possibilities for future linkages. Currently the linkage with injury surveillance is manual only, and there is no formal method for transferring this data. Tennessee does not have CODES or a similar system. TITAN has a linear mapping component utilizing the state-maintained map shape files from TNMAP embedded into the system software. The standardized roadway name(s), the lat/long, distance to/from an intersection or milepost are auto-populated into the e-crash reporting application; and roadway LRS elements are transmitted to TITAN from the roadway system.

Tennessee relies on a robust edit/error trapping routine within TITAN for electronic reports and stresses that no electronic reports containing errors can be submitted to TITAN. Approximately 657 automated validation rules and edit checks are applied during the electronic data collection process and again upon ingestion into the TITAN database. The data dictionary provided shows that these validation rules and edit checks are also logically consistent among the data elements captured. Errors are corrected at the point of entry, as the system prevents submission of reports with errors or omissions. Submitted reports remain pending until all errors are corrected and then finally submitted by the officer when all documented errors are corrected.

It is clear that the State is not successfully utilizing performance measures or tracking numeric progress toward reaching performance goals. Although the timeliness of crash report submissions per agency is tracked and reported, no timeliness baselines or performance goals were identified. The State measures the percent of TITAN reports in which the law enforcement agency utilizes the Map-It tool to capture latitude and longitude coordinates for each crash. A report is run quarterly and identifies the agencies that are either not utilizing or are under-utilizing the tool. With this monitoring, the State may improve the use of the tool through additional training and technical support to those agencies. This example provides evidence of some performance monitoring, but there are others that can be identified to determine how smoothly the process is flowing.

There appears to be a quality control communication disconnect within the State. Even though the TITAN business unit monitors the validity and improvement of the data on an on-going basis, independent sample-based audits are not periodically conducted for crash reports and related database elements, and periodic comparative and trend analyses are not used to explain any differences if they exist. While data quality is reported to the safety planners and program managers, little data quality feedback is regularly communicated from these key users back to the data collectors and managers. Data quality is reported to some members of the TRCC; however, the information is not provided to the TRCC as a whole. The TRCC is responsible for tracking the performance measures for all six of the traffic records system components, including the crash system. It is essential that the TRCC be provided regular review of the data quality management. This consistent review enables the TRCC to create and track projects and performance measures and obtain the funding for overall improvements to the traffic records

system. Communication will also assist in identifying training issues and data element and/or attribute discrepancies.

4.3.2 Assessment Recommendations for Crash

The following recommendations for crash are from the Tennessee's Traffic Records Assessment conducted on April 10, 2019.

1. *Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation and has implemented the recommendation. The first-generation TRIMS Crash Location Automated Updater has been fully implemented, and a more robust updater in development. The state will continue to work towards integration of other systems.

Countermeasure Strategy: Improves Integration

Related Project: TRIMS Crash Location Automated Updater

Related Performance Measure: Crash Integration

2. *Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation. The TRCC provides a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions, but crash data managers in particular intend to deploy a QC dashboard in FY2021.

Countermeasure Strategy: Improves Accuracy

Related Project: Traffic Records Coordinating Administration and Support

Related Performance Measure: Crash Accuracy

4.3.3 Crash Goals

Goal 1: Upgrade TITAN Crash data schema to MMUCC Version 5 compliance.

Strategy: Once MMUCC V5 is released, the Tennessee Department of Safety & Homeland Security will spearhead a working group that will review the current crash report data set using the updated MMUCC mapping tool and identify MMUCC V5 data elements and attributes that will be incorporated into the TITAN system.

Outcome: Improved compliance with the latest version of the MMUCC national crash data standard.

Activity: A GO Team reviewed current MMUCC version 5 compliance and the results were presented at the TRCC meeting on June 13, 2019. Unforeseen development with vendor

contracts and economic and societal challenges have delayed this implementation, but MMUCC 5 compliance remains part of the current TITAN project plans.

Goal 2: Improve the tracking of performance measures for the crash data system and report the results to the TRCC.

Strategy: Develop at least one NHTSA Standard Model Performance Measure for the crash data system and track its year-to-year performance. The crash data system manager will report updated performance measure metrics annually to the TRCC.

Outcome: Improved tracking and awareness of crash data system performance.

Activity: The TITAN team began working with the State's director of data governance in 2019 to develop performance measures for the crash system and intend to deploy dashboards in FY2021 to routinely monitor those measures.

Goal 3: Improve data validation and re-submission process for third-party crash data submissions.

Strategy: Implement an automated notification and resubmission process for third-party crash data submissions that will track initial crash submission, correction requests, correction request type, and subsequent report re-submissions.

Outcome: Improved data quality through automated feedback to submitting agencies and data system managers.

Activity: The new Crash system development team has completed discovery and documentation of the TITAN system, and this project will take high priority. Outreach to third party data submitters has begun as a necessary first step in development and deployment.

4.4 Vehicle Data System Plan

4.4.1 System Overview

The Tennessee Department of Revenue (DOR) administers vehicle titling and registration within the State. County Clerks are deputized to provide vehicle titling and registration functions and conduct the majority of vehicle titling and registration transactions. The Department of Revenue performs Commercial vehicle registration activities through the Interstate Registration Program.

As of July 1, 2017, the Department implemented the Vehicle Title and Registration System (VTRS) to replace the legacy T&R system. Third party software used by County Clerks to process transactions that are submitted to VTRS was also replaced. Data submitted to VTRS is validated through field and logical edits to ensure that accurate information is entered. Vehicle Identification Number (VIN) information is validated on title transactions via third party service and other data elements that are defined in the VTRS data dictionary are entered by County Clerk offices. VTRS users are provided training manuals to assist them in processing vehicle title and registration transactions. Users can provide feedback to the DOR regarding VTRS fixes/enhancement recommendations that can be used to guide system updates or make improvements.

DOR is in the completed replacement of the Legacy T&R system. The new Vehicle Title and Registration System (VTRS) provides a host of improvements to the present processing system.

Some of the changes to the T&R system provided by VTRS are:

1. All 95 county offices are now running the same version of the software as the State. (Completed Feb 2016)
2. VIN decoding by third party software is now performed at entry point. (Completed Feb 2016)
3. Temporary Drive Out tags issued by automotive Dealers (DDOT) may now be purchased on-demand. DDOT issued tags have full registration information available to Law Enforcement the day after issuance of the tag. (Complete July 2017)
4. Financial responsibility laws are now supported by a real time inquiry from law enforcement. The Department also retrieves information from insurance providers to identify Tennessee drivers that may not be in compliance. (Completed 1/2/2017)
5. Title and Registration data is updated real time, eliminating the batching process needed with the legacy system.

Strengths:

The State of Tennessee participates in the Performance and Registration Information Systems Management (PRISM) and is fully compliant with PRISM standards.

The collection, reporting and posting procedures for registrations, titles and title brands are fully documented. Title brand history is recorded in VTRS and title brands from previous states are converted to Tennessee brands. Edit and validation checks are performed in VTRS to ensure that registration and titling information is accurate. Once entered into VTRS, registration and title records may be searched by VIN, title number, or license plate number.

Vehicles reported stolen are flagged in the VTRS system and title transactions on these vehicles cannot be completed unless the stolen vehicle flag is removed. When a stolen vehicle is reported

recovered, an NCIC record check is performed to verify that the vehicle is no longer reported stolen before the record flag is removed.

Law enforcement has access to vehicle records from in-car computer queries or through radio dispatch.

Opportunities:

Tennessee is not currently certified as a user of the National Motor Vehicle Title Information System (NMVTIS), however since implementing VTRS, it is currently working with AAMVA to complete this process by September 2019. Participating actively as a member of NMVTIS will facilitate the deterrence of automobile theft.

The Tennessee vehicle and driver systems are separate and are managed by two different agencies. Presently there are no plans to link the two systems with a common operator name.

There are no documented vehicle data system performance measures for timeliness, accuracy, completeness, uniformity, integration and accessibility. There is an opportunity for the State of Tennessee to ensure that the vehicle system contains complete and accurate information that is available and useful to its customers and highway safety professionals through the establishment and monitoring of vehicle system performance in these six areas.

There is no analysis of high error rates in the vehicle system to determine if there are training needs or if policies need to be evaluated. Since such an analysis of error rates is an easy way to determine specifically where user training should be modified or enhanced and to identify policies that may need to be revised, DOR is developing a process for such analysis with estimated deployment in August 2020.

Barcoding of vehicle registration and titles with a standard 2D barcode has been completed and is in production. The final barcoding projects were completed in March 2019. Barcoding allows auto-populating vehicle information on citations and crash reports, which facilitate both time savings and accuracy.

Vehicle system managers are involved with the Traffic Records Coordinating Committee. Their participation not only helps the vehicle system to monitor and improve its own quality, but also encourages use of the available data to the benefit of highway safety endeavors.

4.4.2 Assessment Recommendations for Vehicle

The following recommendations are from the Tennessee's Traffic Records Assessment conducted on April 10, 2019.

1. *Improve the applicable guidelines for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation. Since deploying VTRS, the Tennessee Department of Revenue is in the process of obtaining NMVTIS certification which is expected to be completed by September 2019.

Countermeasure Strategy: Improves Uniformity

Related Project: Vehicle Title and Registration System

Related Performance Measure: Vehicle Uniformity

2. *Improve the interfaces with the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation. Vehicle registrations are now being issued with bar codes across the state. These bar codes can be scanned into the crash report which leads to much more efficient and quality data being captured regarding vehicle data on the crash report. This includes better VIN, tag, and owner information. The Department of Revenue expanded this initiative by adding barcodes to Dealer Drive-Out tags. In addition, we have held discussions with TBI regarding adding Tennessee Dealer Drive Out tag data added to the data accessible to law enforcement via the TIES message switch. Currently during traffic stops this information is retrieved by running the numbers through dispatch. With this information available through TIES, law enforcement will have access to verify registration information for Tennessee Dealer Drive-Out tags through computers in law enforcement vehicles like any other license plate.

Presently there are no plans to link the Driver and Vehicle data systems with a common Operator Name.

Countermeasure Strategy: Improves Integration

Related Project: Vehicle Title and Registration System

Related Performance Measure: Vehicle Integration

3. *Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation. The TRCC will provide a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions.

Countermeasure Strategy: Improves Accuracy

Related Project: Vehicle Title and Registration System

Related Performance Measure: Vehicle Accuracy

4.4.3 Vehicle Goals

Goal 1: Complete deployment of the Department of Revenue Vehicle Title and Registration System (VTRS) and benefit from its real-time title and registration data availability.

Strategy: Complete the Department of Revenue's deployment of the new vehicle data system.

Outcome: Improved data quality, timeliness, and accessibility of vehicle title and registration data.

Activity: Complete.

Goal 2: Obtain National Motor Vehicle Title Information System (NMVTIS) certification for the new VTRS system.

Strategy: Once deployment of VTRS is complete, the Tennessee Department of Revenue will begin the NMVTIS certification process.

Outcome: Tennessee will use NMVTIS to protect customers and improve business and investigative processes related to titling and registration.

Activity: The Department working with AAMVA to complete this process by August 2020.

4.5 Driver Data System Plan

4.5.1 System Overview

The Driver Services Division (DSD) is in the Department of Safety & Homeland Security and is responsible for issuing driver's licenses and maintaining the driving records. Tennessee has upgraded the driver license system February 15, 2015. The current system is electronically interfaced with AAMVA (CDLIS, PDPS, SSLOV, HAVA, SSR, USPBS, VLS, DIA), AvTex, DL Renewal – DOR Mail, FileNet, FIS, iPad Kiosk, MorphoTrust, TITAN, Qmatic Alicio, Scanning, and CDR, Revenue, DHS, SOS, and CFD (Customer Focused Government). While the updated Driver data system is now electronic, the DSD is still receiving paper documents by mail that are scanned into the system. The driver's license number, name, date of birth (DOB), and SSN are the primary identifiers used to update or extract information on the driver license system. With the deployment of the A-List Driver system, electronic interfaces have been implemented allowing information transfer between data providers and users and automatic record updates.

Law enforcement reports DUI arrests to the Tennessee Bureau of Investigations. There is no electronic interface between the Bureau of Investigations and the DSD. The Courts submit the DUI convictions to the DSD by paper or an electronic batch file and is posted to the driving records. DSD keeps a digital image in FileNet of the court disposition. All adjudicated citations are recorded on the driving record and, as required, appropriate sanctions are applied to the license. The process of transmission and posting of conviction data on the driver history file is now fully automated. Completion of driver education, rider training, traffic school or defensive driving courses can be captured on the driving record. The record indicates the course was completed.

All driver license transactions are captured and stored on the driver license system. The transactions are listed by date in chronological order and identify the learners' permits, licenses and endorsements issued and actions applied to the license. DSD examiners can view this information at their workstations.

The driver license system automatically checks the Problem Driver Pointer System and the Commercial Driver License Information System during the application process. If there are any issues, the system will "lock" the application process until the issue can be resolved. The system generates a report of all these stopped transactions for use by the DSD's Internal Audit Unit.

Data Elements are defined in Tennessee's A-List Relational Database. Edit checks are performed in the source code and configuration in the system. If incorrect information is inserted into a data field, the A-List system notifies the user of the error and does not allow completion until the error is resolved. Tennessee's A-List system has data definitions for all the data files and documentation for each field and edit check.

The DSD maintains an updated policy and procedure manual detailing the steps for processing applications, issuing licenses and working with driving records, including processing changes in license status and correcting errors. The manual is given to all the examiners but is also available

electronically and can be accessed at all the examiners' workstations. A detailed reference manual is also kept at each driver service center.

The DSD uses a "photo first" application process so the applicant can be tracked throughout the license application process. The licensing issuance system has one-to-many image verification at the issuance point. All photo images are stored in the A-List system. All driver license applicants, including CDL applicants, must provide documentary proof of identity, age, citizenship, legal presence and Tennessee residency. These documents are scanned and stored on Tennessee's FileNet system. DSD issuance staff complete the American Association of Motor Vehicle Administrators' Fraudulent Document Recognition training so they can recognize fraudulent documents. Social Security numbers are verified through the Social Security Online Verification (SSOLV) system and VLS (Verification of Lawful Status) inquiries must be completed on all United States Citizenship and Immigration Service (USCIS) documents. Verifying USCIS documents is an automated process through the first two steps (step three is a manual process). The DSD also has an Identity Theft Unit in its Criminal Investigation Division to investigate fraud and potential identity theft. CDL applicants are also fingerprinted and receive TSA approval based on both the Tennessee Bureau of Investigations and the FBI background checks.

To reduce and detect internal fraud, all issuance examiners are issued a unique RACFID number that allows them access to the driver license system based on their job responsibilities. All license transactions are tracked by the RACFID number. Management is required to complete periodic reviews of each examiner's transactions, including checking the document images in FileNet, ensuring correct transactions were used and information was entered into the system correctly. The DSD Internal Audit Division also conducts audits on all the driver service centers as part of an annual risk assessment. In addition to the RACFID, Tennessee has implemented a security matrix based on user roles. The A-List system can monitor usage historically and in real-time for security and auditing purposes.

To ensure information security, all DSD staff is required to sign Acceptable Use Policy that describes the expectation of employees concerning computer and system usage and the penalties for violation. Personnel receive training on the Federal Drivers Privacy Protection Act and Tennessee's License Privacy Policy and sign statements that they understand and will follow these rules. Tennessee actively monitors all network services and resources. Reports are generated and management is required to ensure only current authorized employees are accessing the systems and completing the tasks assigned to their positions. Bulk data or information may not be released until the request is reviewed and approved by the Director of Financial Responsibility. Access and release of information is also tracked by a Security Administrator.

Tennessee's crash system is electronically interfaced with the DSD driver licensing system for updating driver history. Data can be compared by using the driver's license number, name and date of birth as the unique identifiers.

Guilty-verdict adjudicated citations are reported by the court's Court Document Reporting (CDR) system. The CDR files are submitted nightly to the DSD and are linked to the driving record. All

citations that may affect a driver's license are generally completed the same day they are received. Out of state adjudicated citations are submitted manually or electronically. In rare cases, Courts may send paper dispositions to the DSD to be manually entered into the system.

Law enforcement and courts can be granted access to the driver license records through the Tennessee Bureau of Investigation's Criminal Justice Portal TIES (Tennessee Information Enforcement System). Law enforcement agencies and courts must apply to use the system and may use it only for law enforcement activities or official business. Other state's law enforcement agencies and courts may also be granted access by applying to the Tennessee Bureau of Investigations.

Tennessee's current data quality management processes include tracking of timeliness and accuracy monitoring on select processes. The A-List system includes business rules, edit-checks, and data validation. A-List has incorporated accessibility workflow improvements that facilitate requests for changes and improvements to programs.

4.5.2 Assessment Recommendation for Driver

The following recommendation is from the Tennessee's Traffic Records Assessment conducted on April 10, 2019.

1. *Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: Agreed. The TRCC will provide a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions.

Countermeasure Strategy: Improves Accuracy

Related Project: Traffic Records Coordinating Administration and Support

Related Performance Measure: Driver Accuracy

4.5.3 Driver Goals

Goal 1: *Develop a web portal for CDTP (Cooperative Driving Testing Program), MREP (Motorcycle Rider Education Program), and the Eight Hour Defensive Driving course to allow third parties to post knowledge and skills to A-List, thereby reducing wait and service times.*

Strategy: The Driver Services Division will develop requirements and associated tasking to import third party CDTP and MREP data into the A-List driver data system.

Outcome: Reduced wait and service times for A-List users.

Activity: A third party TeDI System is developed but not yet implemented for DTTP.

Goal 2: Automate Verification of Lawful Status (VLS) () submissions through an automatic upload of supporting verification materials.

Strategy: The Driver Services Division will develop requirements and tasking to add functionality to the A-List driver data system to provide upload of supporting verification materials.

Outcome: A more automated driver verification process that results in improved timeliness.

Activity: DSD has moved to version 3.2 in November 2017 that automatically uploads supporting verification materials.

Goal 3: Driver Services will implement a Data Quality Control program for the Driver data system.

Strategy: The TRCC will provide a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions.

Outcome: Improved accuracy and completeness of the driver data system.

Activity: No activity.

4.6 Roadway Data System Plan

4.6.1 System Overview

The Tennessee Department of Transportation (TDOT) captures and maintains roadway inventory data for all public roadways in the Tennessee Roadway Information Management System (TRIMS). TRIMS contains roadway inventory, traffic volume, and other roadway-related data. The Enhanced Tennessee Roadway Information Management System (E-TRIMS) is a web-based user centric replication of TRIMS which is used by stakeholders and the general public. The MIRE data elements documented in the TRIMS data dictionary include:

MIRE Elements	MIRE Elements
County Name	Centerline Presence/Width
County Code	Centerline Rumble Strip Presence/Type
Highway District	Passing Zone Percentage
Type of Governmental Ownership*	Bridge Numbers for Bridges in Segment
Specific Governmental Ownership	Unique Junction Identifier*
City/Local Jurisdiction Name	Location for Road 1 Crossing Point*
City/Local Jurisdiction Urban Code	Location for Road 2 Crossing Point*
Route Number*	Location Identifier for Additional Road Crossing Points
Route/Street Name*	School Zone Indicator
Begin Point Segment Descriptor*	Railroad Crossing Number
End Point Segment Descriptor*	Intersection/Junction Traffic Control*
Segment Identifier*	Signalization Presence/Type
Segment Length*	Circular Intersection - Number of Circulatory Lanes
Route Signing	Circular Intersection - Circulatory Lane Width
Route Signing Qualifier	Circular Intersection - Bicycle Facility
Direction of Inventory*	Unique Interchange Identifier*
Functional Class*	Location Identifier for Road 1 Crossing Point
Rural/Urban Designation*	Location Identifier for Road 2 Crossing Point
Federal Aid*	Location Identifier for Additional Road Crossing Points
Route Type*	Interchange Lighting
Access Control*	Interchange Enter Volume
Surface Type*	Interchange Identifier for this Ramp
Total Paved Surface Width	Unique Ramp Identifier
Surface Friction	Ramp Length*
Surface Friction Date	Ramp Acceleration Lane Length

International Roughness Index (IRI)	Ramp Deceleration Lane Length
International Roughness Index (IRI) Date	Ramp Number of Lanes
Pavement Condition (Present Serviceability Rating)	Ramp AADT*
Pavement Condition (Present Serviceability Rating) Date	Year of Ramp AADT*
Number of Through Lanes*	Ramp Advisory Speed Limit
Outside Through Lane Width	Roadway Type at Beginning Ramp Terminal*
Inside Through Lane Width	Roadway Feature at Beginning Ramp Terminal
Cross Slope	Location Identifier for Roadway at Beginning Ramp Terminal*
Auxiliary Lane Presence/Type	Location of Beginning Ramp Terminal Relative to Mainline Flow
Auxiliary Lane Length	Roadway Type at Ending Ramp Terminal*
HOV Lane Presence/Type	Location Identifier for Roadway at Ending Ramp Terminal*
HOV Lanes	Location of Ending Ramp Terminal Relative to Mainline Flow
Reversible Lanes	Curve Identifiers
Presence/Type of Bicycle Facility	Horizontal Curve Degree or Radius
Width of Bicycle Facility	Horizontal Curve Length
Number of Peak Period Through Lanes	Horizontal Curve Direction
Right Shoulder Type	Grade Identifiers and Linkage Elements
Right Shoulder Total Width	Percent of Gradient
Right Paved Shoulder Width	Grade Length
Right Shoulder Rumble Strip Presence/Type	Vertical Curve Length
Left Shoulder Type	Intersection/Junction Geometry**
Left Shoulder Total Width	Unique Approach Identifier**
Left Paved Shoulder Width	AADT Year*
Interchange Type**	Percent Single Unit Trucks or Single Truck AADT
Left Shoulder Rumble Strip Presence/Type	Percent Combination Trucks or Combination Truck AADT
Sidewalk Presence	Percentage Trucks or Truck AADT
Curb Presence	Motorcycle Count or Percentage
Median Type*	Hourly Traffic Volumes (or Peak and Off peak AADT)
Median Width	Peak Hour Directional Factor
Median Barrier Presence/Type	One/Two-Way Operations*

Median (Inner) Paved Shoulder Width	Speed Limit
Median Shoulder Rumble Strip Presence/Type	Truck Speed Limit
Terrain Type	Nighttime Speed Limit
Number of Signalized Intersections in Segment	School Zone Indicator
Number of Stop-Controlled Intersections in Segment	On-Street Parking Presence
Number of Uncontrolled/Other Intersections in Segment	On-Street Parking Type
Annual Average Daily Traffic* AADT Year*	Roadway Lighting Edgeline Presence/Width

Note: (*) indicates Fundamental Data Elements; (**) indicates elements captured; not stored in TRIMS

There are some exceptions between the data elements in TRIMS and MIRE. Overall, it appears that the State is moving toward more compatibility with the recommended MIRE data elements, much as they have with other national standards for components of the traffic records system.

Currently, when a request for the addition or change of roadway-related data elements is received, a committee evaluates this request and reviews the cost estimates for revising TRIMS to include the new item(s). If the need is determined to be valid, the request is forwarded to the contractor that maintains the TRIMS software. The committee includes IT professionals and other key stakeholders who review the request and coordinate the approval process. The TRIMS manual documents the addition or change of roadway data elements, including the update schedule for different types of roadway-related data. The TRIMS manual also lists new codes for several roadway variables and includes a section on "Additions and Revisions" that provides an essential supplement for TRIMS users.

The State collects roadway inventory data for all public roadways, and extensive documentation and code sheets exist for collection of those datasets. All public roadways use a compatible Location Referencing System (LRS) that can be used for linkage and mapping of all TRIMS roadways. While regional agencies do not collect roadway data, local agencies notify the State if a roadway in their jurisdictions has been changed or added, so State data collectors can be scheduled. A much smaller percentage of the local roadway data elements are encoded than data elements for locations on state-maintained roadways. All motor vehicle crashes are assigned the same LRS so they can be linked to all the roadway-related data maintained in TRIMS. According to the 2014 SHSP draft, the State uses the same LRS for crash location information to allow linkage to roadway inventory and other roadway-related data for safety analysis and management use. Linkage of the roadway, traffic, and crash data through a compatible LRS enables TDOT to address the data-driven Highway Safety Improvement Program (HSIP) and other engineering analyses with safety analyses and mapping capabilities. There are no archival copies of roadway data to link with crashes that occurred when the roadway's

geometrics were not the same as the current roadway. The 2019 SHSP will be completed by the end of the year.

TDOT has embarked on a new LRS which will seek to improve the overall data capture, storage, linkages and analytical processes in the system. ESRI Roads and Highways is at an advanced stage of implementation within TDOT and it envisioned that it will play a major role in creating even more links to improve the system. The system will succeed TRIMS at some point in the future and will maintain all connections including the capture and storage of all MIRE elements. It is expected that the new LRS will help with meeting FHWA ARNOLD guidelines and developing new protocols and process for updating the network, data events and features. The LRS will also bring new temporality within the datasets, a feature which was not within the TRIMS framework.

Data capture is an important aspect to compiling and adding data to the new LRS. As a result, TDOT is currently in the process of solidifying partnerships with local agencies to develop the Local Data Implementation Project (LDIP). Instituting checks and balances, the new LRS has the capacity to allow the consignment of third-party data input and local agencies can use a redlining tool to notify TDOT of new data and associated attributes and to encode their own roadway data into the system. Compatibility between state-collected and locally collected data will be particularly important as local agencies begin to submit their own roadway data to the State. While State processes are well documented well, it will be critical to establish training procedures, feedback, and quality control measures to ensure compatibility of all the data in the Roads and Highways LRS.

In addition to establishing direct data transfer and notification by local agencies into an integrated system, TDOT can survey the larger local agencies to determine if local roadway data systems can be imported. Crashes are currently the only traffic records system component imported into the system and it would be prudent to create linkages with other agencies to allow other data transfer.

4.6.2 Assessment Recommendations for Roadway

The following recommendations are from the Tennessee's Traffic Records Assessment conducted on April 10, 2019.

1. *Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation. The TRCC will provide a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions. TDOT is currently working on agency-wide data governance initiatives in order to improve data quality control over enterprise data management.

Countermeasure Strategy: Improves Accuracy

Related Project: Traffic Records Coordinating Administration and Support

Related Performance Measure: Roadway Accuracy

4.6.3 Roadway Goals

Goal 1: Establish relationships and a methodology for communication with local agencies that supply local roadway inventory data to the State: Development of a Local Data Implementation Program (LDIP)

Strategy: The Tennessee Department of Transportation will develop and implement a plan to formalize points of contacts, relationships, and communication channels with local agencies. This will eventually, allow local agencies to communicate roadway inventory changes and notify centerline additions.

Outcome: Improved timeliness and completeness of local roadway inventory data.

Activity: Staff has contacted local officials, received some local municipality data, and presented at MPO and RPO conferences and local meetings. Challenges are disparate data standard formats and requirements.

Goal 2: Keep archival copies of roadway data with temporal capabilities to modernize the Linear Referencing System (LRS) and incorporate ramps for a connected network.

Strategy: TDOT is at an advanced stage of developing a modernized LRS based upon FHWA guidelines. They currently have strategic geospatial partners, Hexagon and ESRI assisting with the business analysis necessary to implement a new data model.

Included in the new architecture and data model are the following features:

- Connected network including ramps
- Dual Carriageway
- Temporality
- Multiple LRS
- Allowance for concurrent routes/runalongs

Implementing a new LRS is a complex process that TDOT anticipates will take three to five years to fully complete.

Outcome: Safety analysts will be able to link crashes with the roadway geometries and attributes as they were at the time of the crash. Opportunities for other agencies to be part of a geospatial framework.

Activity: TDOT is working on a complex data migration of events and network data out of TRIMS and into the new ESRI Roads and Highways application. TDOT is also modelling existing editing processes with the aim of facilitating them in the new software. Training is also being discussed with key stakeholders.

Goal 3: Update documentation and possible attributes to include all MIRE Fundamental Data Elements (FDEs) for public roads in the enterprise system data dictionary.

Strategy: Tennessee Department of Transportation will develop a schedule and implement a plan to add the remaining MIRE Fundamental Data Elements to the roadway data system.

Outcome: The Tennessee DOT's roadway network will collect all safety-related MIRE data elements and, as a result, will be available for improved safety analysis.

Activity: Roadway Data Office has updated internal documentation and procedures related to MIRE. TDOT had efforts underway to develop an enterprise system data dictionary to be completed by the end of the calendar year.

Goal 4: Develop and promote TNTIMES, an agency wide application for the compilation, storage, management, evaluation, and reporting of Tennessee traffic Data

Strategy: Continued data input, development and extensive promotion of the application with the aim of creating linkages with key agencies to include their traffic data into the system.

Outcome: Enhanced partnerships with traffic data collection agencies statewide and to be a repository for traffic data. Traffic data has a direct correlation with safety assessments and initiatives and as such, will be the main source of information for AADT, VMT and other key required statistics.

Activity: The new system is operational with extensive traffic data which can be used in analytical processes. Staff continues to work with the developer MS2 to update the system as new users and stakeholders are added.

Goal 5: Facilitate and promote the development of data governance policies for roadway and traffic data and facilitate data sharing, within identified policies, with partners and stakeholders in the TRCC to improve analysis and visualization of information.

Strategy: As the responsible agency for managing roadway information, TDOT is central to facilitating cooperative data sharing between agencies. TDOT is in the early stages of developing a data governance framework and related policies for various data sources managed by the agency. As an extension of TDOT's data governance development, framework and policy will be extended to both better facilitate coordination with TRCC member agencies and to improve overall data quality.

Outcome: Improved transparency and data quality as well as improved coordination on information sharing.

Activity: TDOT has taken initial steps to develop a data governance strategy. This effort is in the early stages but is expected to develop over the coming months/years.

4.7 Citation/Adjudication Data System Plan

4.7.1 System Overview

Tennessee has well documented and up-to-date citation and adjudication systems. These documented systems will help facilitate interfaces between systems. The systems comply with standards making the possibility of sharing data easier. Procedures and processes are documented within these systems as well. Having an inventory of the systems will allow the State to continue to monitor and improve the data quality and interfaces between traffic records component systems.

Tennessee has a DUI tracking system maintained by the Tennessee Highway Patrol. They not only collect and track the DUI charges, but also analyze the data. The data is used for targeted enforcement and initiatives throughout the State. The DUI tracking system is an integral part of traffic safety. With dispositions and BAC included in the tracking system, Tennessee can monitor, analyze and report on any aspect of a DUI case and identify trends and concerns at any level of enforcement. This includes court dispositions that may not be favorable to the enforcement efforts.

There are few linkages between the different systems within the State. Tennessee does not have a unified court system, which makes it difficult to coordinate and facilitate data usage at a statewide level. While there are some state-level systems, much of the traffic and adjudication data is left at the county level. The traffic data is linear in workflow with very little usage outside the scope of adjudication. There are no linkages or interfaces with crash, vehicle and driver; however, TITAN may make this possible when fully deployed.

It is difficult to track a citation from issuance to disposition in the State. Each county is responsible for the numbering of citations and there is no statutory authority to standardize the numbers throughout the State. As the General Sessions Data Repository is fully deployed, it should facilitate the development of a statewide citation tracking system.

THP issued its first eCitation in 2014 and is deployed in 93 of the 95 counties. eCitation functionality is integrated between TITAN and the AOC TNCIS system, and allows for eCitation data and images to move electronically between the two systems. A new eCDR court disposition reporting system is still being developed and will be integrated with the citation and driver systems. This will lead to much improved quality and facilitate integration of data between traffic records systems.

4.7.2 Assessment Recommendations for Citation/Adjudication

The following recommendations are from the Tennessee's Traffic Records Assessment conducted on April 10, 2019.

1. *Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation. The General Sessions Data Repository project, when deployed, will improve data integration by collecting caseload data from the 124 General Sessions courts within the State.

Countermeasure Strategy: Improves Integration

Related Project: General Sessions Data Repository

Related Performance Measure: Citation Integration

2. *Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.*

State Response: State accepts recommendation. The TRCC will provide a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions.

Countermeasure Strategy: Improves Accuracy

Related Project: Traffic Records Coordinating Administration and Support

Related Performance Measure: Citation Accuracy

4.7.3 Citation/Adjudication Goals

Goal 1: *Post citation dispositions from the courts into the TITAN system.*

Strategy: Implement an interface from the courts system to the TITAN system to update TITAN citation data with final disposition data.

Outcome: Disposition data will be available for analysis in the TITAN system.

Activity: On hold.

Goal 2: *Provide TDOSHS personnel access to the General Sessions Data Repository (AOC).*

Strategy: Add a TDOSHS user's analysis role to the GSDR.

Outcome: Enhanced ability to verify and research citation/adjudication related data.

Activity: On hold pending eCDR implementation.

Goal 3: Form a Citation Data Quality Control Panel that will meet three or four times annually with the goal of developing a formal citation data quality program.

Strategy: The TRCC will provide a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions.

Outcome: Improved accuracy and completeness of the citation/adjudication data system.

Activity: No status.

Goal 4: Use the Electronic Court Disposition Reporting System (eCDR) for tracking NHTSA standard performance measures for the citation/adjudication data systems (i.e. timeliness, accuracy).

Strategy: Develop at least one NHTSA Standard Model Performance Measure for the eCDR data system and track its year-to-year performance. The eCDR system manager will report updated performance measure metrics annually to the TRCC.

Outcome: Improved tracking and awareness of eCDR data system performance.

Activity: On hold pending eCDR implementation.

Goal 5: Provide TDOSHS access to the General Sessions Data Repository to allow for highway safety analysis.

Strategy: AOC will provide TDOSHS with access to the GSDR for analytical purposes.

Outcome: Provide authorized stakeholders with quick and easy answers to routine questions about the work of the General Sessions Court through a self-help portal. Deliver support for more complex information requests with staff expertise and business intelligence and statistical analysis tools.

Activity: On hold pending eCDR implementation.

Goal 6: Develop a formal Citation Data Dictionary.

Strategy: TN will conduct a review of the existing data tables and structures of the electronic citation system and use the results to develop a formal data dictionary that includes data elements and business rules.

Outcome: A formal data dictionary that can be used by stakeholders and third-party vendors in the State.

Activity: Planned.

Goal 7: Link TITAN's citation data to the Tennessee Information Enforcement System (TIES).

Strategy: Allocate funding and resources to tasking for developing the interface for querying and auto population of vehicle and driver data from the electronic citation and crash systems.

Outcome: Integration of data systems resulting in improved data quality and officer safety.

Activity: On hold.

4.8 EMS/Injury Surveillance Data System Plan

4.8.1 System Overview

Tennessee's Injury Surveillance System includes a pre-hospital data collection system, a statewide trauma registry, emergency department and hospital discharge databases, and a vital records system. Management of all components resides with the Tennessee Department of Health (TDH).

The TNEMSIS system maintains patient care reports from EMS agencies that are licensed to operate in the State, is compliant with version 3.4.0 of the National EMS Information System (NEMSIS) and submits the required elements to the national NEMSIS data system. The state accepts NEMSIS 3.4.0 data. The new data system will soon allow data to become available to researchers and partners for analyses.

Tennessee hospitals submit hospital records directly to the TDH or to the Tennessee Hospital Association (THA), which then submits those records to the TDH for inclusion in the State's Hospital Discharge Data System (HDDS). Hospital data, including hospital discharge and emergency department records, follows the Uniform Billing (UB-04) standards; emergency department records may be identified through a treatment variable. Data quality checks are conducted by THA, then TDH returns erroneous reports to individual hospitals for correction. TDH conducts a secondary data check around variable mapping and critical field completion. The hospital data is used by divisions within TDH for planning and evaluation purposes but is not widely used by agencies outside of TDH, including traffic safety partners in the State.

The Tennessee Trauma Registry is maintained at TDH and contains one hundred percent of the National Trauma Data Standard (NTDS) elements in addition to required state extension elements and Injury Severity Scores (ISS) for each record. All hospitals utilize the same software package, which includes a series of data checks and validation rules. Data quality checks for duplicate records and field compliance exceptions are performed upon receipt of the records. Trauma registry data is not currently available for analysis outside of TDH due to data access concerns, but efforts are underway to develop a system for requesting and approving the use of trauma records within the confidentiality laws. Feedback from end-users is consistently communicated to the State Trauma Care Advisory Council and trauma registrars.

TDH replaced the paper-based death certificates system with VRISM, an electronic vital records system, which includes edit checks. Data quality analysis will be improved at the State level. There is a clearly documented system for returning death certificates for correction and the submission of the State file to the National Center for Health Statistics for application of cause-of-death codes and quality review. Feedback from end-users is consistently communicated to the data managers and incorporated into training materials. Critical fields from the mortality database are shared with the State Fatality Analysis Reporting System (FARS) analyst to increase the accuracy, completeness, and uniformity of that data. Other than FARS, the traffic-related mortality data is rarely used for research or evaluation purposes.

The Tennessee Injury Surveillance System contains all the components recommended in the Advisory and TDH has upgraded the EMS data collection and maintenance processes. Tennessee has several opportunities to enhance the Injury Surveillance System. Those include the development of performance measures, incorporation of State-level data quality checks, and integration of data systems. Once the new Trauma Registry and EMS run reporting systems are fully deployed TDH plans to implement and track several performance measures. Performance measures are goals against which the data system may be evaluated and progress noted. Currently, State-level data quality checks exist in the trauma registry, EMS run reporting, hospital discharge, ED data, and vital records systems. State-level oversight is a valuable component of a successful data collection system. TDH is implementing upgraded trauma registry and EMS-run reporting systems and that will facilitate opportunities for data linkages. The State is in a good position to integrate hospital data (hospital discharge, emergency department, trauma registry) with other components of the traffic records system and has begun integration of hospital discharge and crash data.

Injury data is a vital piece of a State traffic records system and provides post-crash outcome information that no other system component contains. Incorporating the human outcomes and costs of crashes will enhance problem identification, program evaluation, resource allocation, and legislative efforts. In order to prevent crashes, injuries, and fatalities, one must understand the nature of all three.

4.8.2 Assessment Recommendations EMS/Injury Surveillance

The following recommendations are from the Tennessee's Traffic Records Assessment conducted on April 10, 2019.

1. Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

State Response: State accepts recommendation. TDH upgraded the trauma registry and EMS-run reporting systems and that upgrade facilitates opportunities for data linkages and interfaces. These improvements are addressed in the current project updates included in the strategic plan and continue to lead to improved data quality in these systems.

Countermeasure Strategy: Improves Integration

Related Project: Implementation and Maintenance of TNEMSIS and trauma registry.

Related Performance Measure: EMS Integration

2. Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

State Response: State accepts recommendation. The TRCC will provide a framework for discussions on implementing data quality control programs for each data system with the objective of improving data across quantitative and qualitative dimensions.

Countermeasure Strategy: Improves Accuracy

Related Project: Traffic Records Coordinating Administration and Support

Related Performance Measure: EMS Accuracy, Trauma Registry Accuracy

4.8.3 EMS/Injury Surveillance Goals

Goal 1: Facilitate data linkages between State Trauma Registry and EMS Run Reporting systems to other core component traffic records data systems.

Strategy: The State Trauma Registry and EMS Run reporting systems have been deployed; the State will soon identify linkage opportunities.

Outcome: Increased analysis capabilities from the linked data sets.

Activity: The State has implemented EMS and Trauma Registry data systems via ImageTrend software. The state is working toward identifying data linking opportunities.

Goal 2: Implement a link between the hospital, vital records, and crash datasets for the purpose of increased analysis capability.

Strategy: A link between these data systems is dependent on planned system upgrades/replacements. The State will identify linkage opportunities and requirements while defining and selecting the new systems.

Outcome: A link between hospital, vital records, and crash datasets will allow for problem identification, program evaluation, resource allocation, and legislative efforts designed to reduce injuries and fatalities from crashes.

Activity: The Injury Surveillance System staff has identified and tested a method to link hospital and crash records and is beginning to test the method using vital records and crash records. Linkage quality will then be measured.

Goal 3: Improve the tracking of performance measures for the DOH Injury Surveillance data systems.

Strategy: Develop at least one performance measure per ISS data system that is based on the NHTSA Standard Performance Measures.

Outcome: Increased visibility and awareness of data system operations and performance.

Activity: The Injury Surveillance System staff is working with data stewards to create useful reports that are covering the six measures in NHTSA Standard Performance Measures.

5. Progress

5.1 Traffic Records Performance Measures

5.1.1 Citation Timeliness, Completeness, Uniformity – Counties Deployed

Label: C-TCU-01

Status of Improvement: Demonstrated Improvement

Active Status: Active

Last Updated: June 3, 2020

Related Project: eCitation

Narrative

The measure shows the number and percentage of counties in Tennessee where THP issues citations electronically.

The State began piloting its eCitation program in 2014 and has moved forward with statewide rollout with the Tennessee Highway Patrol in 2016. Beginning in June 2014, THP issued citations electronically in 3 of the 95 Tennessee counties (3.2%). By the end of March 2020, eCitation has been deployed to 93 of the State’s 95 counties (97.89%).

Measurements

Start Date	End Date	Counties	Percent of Total Counties
April 1, 2013	March 31, 2014	0	0.00%
April 1, 2014	March 31, 2015	11	11.57%
April 1, 2015	March 31, 2016	29	30.52%
April 1, 2016	March 31, 2017	89	93.68%
April 1, 2017	March 31, 2018	92	96.84%
April 1, 2018	March 31, 2019	93	97.89%
April 1, 2019	March 31, 2020	93	97.89%

5.1.2 Citation Timeliness, Completeness, Uniformity – Paper vs Electronic

Label: C-TCU-02

Status of Improvement: Demonstrated Improvement

Active Status: Active

Revision Date: June 3, 2020

Related Project: eCitation

Narrative

This performance measure shows the percentage of THP citations issued electronically versus paper.

The State began piloting its eCitation program in 2014 and deployed statewide with the Tennessee Highway Patrol in 2016. For the current measurement period, 65.45% of Tennessee Highway Patrol citations were issued electronically.

Measurements

Start Date	End Date	Paper	Electronic	Percent Electronic
April 1, 2013	March 31, 2014	402,455	0	0.00%
April 1, 2014	March 31, 2015	403,191	1,186	0.29%
April 1, 2015	March 31, 2016	415,584	10,482	2.52%
April 1, 2016	March 31, 2017	333,977	99,310	29.74%
April 1, 2017	March 31, 2018	287,934	180,643	38.55%
April 1, 2018	March 31, 2019	249,374	203,337	44.92%
April 1, 2019	March 31, 2020	105,889	209,693	66.45%

Supporting Materials (Backup)

Tennessee Highway Patrol Citations, Total

The screenshot displays a Microsoft SQL Server Management Studio window with a query executed successfully. The query is a SELECT statement that aggregates citation data by year and month. The results table shows 12 rows of data, representing months from April 2017 to March 2018.

```

1 Select
2 Datepart(yyyy, A.ActivityDte) As [YearMnb],
3 Datepart(m, A.ActivityDte) As [MonthMnb],
4 Sum(A.ActivityMnb) As [CitationsMnb]
5
6 From
7 vwARActivity A
8 Inner join DataTblARActivityReport AR
9 on A.ReportIDMnb = AR.ReportIDMnb
10 Inner join DataTblARTimeSummary T
11 on A.ReportIDMnb = T.ReportIDMnb
12 and A.ActivityDte = T.DateDte
13 and T.OnDutyBit = 1
14
15 Where
16 A.ActivityTypeMnb in(2,3,5)
17 and A.ActivityDte between '4/1/2017' and '3/31/2018'
18
19 Group By
20 Datepart(yyyy, A.ActivityDte),
21 Datepart(m, A.ActivityDte)
    
```

YearMnb	MonthMnb	CitationsMnb
2017	4	41441.00
2017	5	39802.00
2017	6	35439.00
2017	7	38081.00
2017	8	38299.00
2017	9	41571.00
2017	10	42981.00
2017	11	39775.00
2017	12	33864.00
2018	1	34791.00
2018	2	35381.00
2018	3	46142.00

Query executed successfully. d:\033dcww\00006 (13.0 RTM) | NET:DI03264 (63) | Titan_Replicated | 00:00:06 | 12 rows

Tennessee Highway Patrol Citations, Electronic

The screenshot displays a Microsoft SQL Server Management Studio window with a query editor and a results grid. The query is as follows:

```

1 Select
2 Datepart(yyyy, I.IncidentDte) As [YearMnb],
3 Datepart(m, I.IncidentDte) As [MonthMnb],
4 Count(CN.IncidentIDMnb) As [CitationsMnb]
5
6 From DataTblIncident I
7 Inner join DataTblCitation CN
8 on I.IncidentIDMnb = CN.IncidentIDMnb
9
10 Where
11 I.StatusMnb = 4
12 and I.IncidentDte >= '6/9/2014'
13 and CN.CitationTypeCde = 'TI'
14 and I.AgencyIDMnb in(3018,379,380,378,381,382,383,384,385,386)
15 and Cast(I.IncidentDte as date) between '4/1/2017' and '3/31/2018'
16
17 Group By
18 Datepart(yyyy, I.IncidentDte),
19 Datepart(m, I.IncidentDte)
20 ;
    
```

The results grid shows the following data:

YearMnb	MonthMnb	CitationsMnb
2018	1	14166
2018	2	13840
2018	3	18762
2017	4	14928
2017	5	14356
2017	6	12849
2017	7	14288
2017	8	14494
2017	9	15006
2017	10	16676
2017	11	17108
2017	12	14765

The status bar at the bottom indicates: "Query executed successfully. di03dcww00006 (13.0 RTM) NET:DI03264 (61) Titan_Replicated 00:00:00 12 rows". The Windows taskbar shows the time as 3:01 PM on 5/4/2018.

5.2 Traffic Records Performance Targets

5.2.1 Target for Citation Timeliness, Completeness, Uniformity – Counties Deployed

The target for the number and percentage of counties in Tennessee where THP issues citations electronically is:

Start Date	End Date	Counties	Percent of Total Counties
April 1, 2020	March 31, 2021	94	98.95%

5.2.2 Target for Citation Timeliness, Completeness, Uniformity – Paper vs Electronic

The target for the percentage of THP citations issued electronically versus paper is:

Start Date	End Date	Percent Electronic
April 1, 2020	March 31, 2021	75%

5.2.3 EMS/Injury Surveillance Performance Measures and Targets

TIMELINESS*	ACCURACY*	COMPLETENESS*
90% of facilities submitting trauma registry data will submit within the trauma rule governance timeframe of no later than 90 days passed the closed quarter	90% of quarterly trauma registry data submissions will contain no exceptions to the file submission structure upon processing.	90 % of registry submissions will contain complete quarterly records and will not require data resubmissions.
50% of all EMS services reporting will show adherence to a 72-hour post completed run submission deadline	Submitted ePCR validation scores will show an average of 80% or higher for at least 50% of all EMS services reporting	Submitted ePCR's will show a rejection rate no higher than 30% for all EMS services reporting

6. TRCC Projects

The TRCC developed the following process and prioritization method for TRCC project selection:

- The TRCC focuses on addressing the findings and recommendations of the most recent NHTSA Traffic Records Assessment.
- TRCC meetings are held on a quarterly basis with both executive and technical committee members invited to all meetings.
- Visits to other states deploying electronic crash collection were undertaken by members of TDOT and TDOS in order to determine proper leadership of the electronic crash database.
- A Workshop plan was developed to help us communicate better and determine what Tennessee needed in a Strategic Plan.
- From the workshop, various committees were determined and Co-chairs elected for the Technical committee to begin crafting and drafting various components of the Strategic Plan (TRSP).
- In order to get senior management buy-in to the committee, it was decided that a common agreement or Memorandum of Understanding needed to be established.

The TRCC continues to address prioritization methodologies and reviews the status of high-profile traffic records projects at each meeting.

State of Tennessee TRCC FFY 2021 Traffic Records Project List

*Refer to the Tennessee Highway Safety Plan for FFY 2021 project budget information.

FFY 2021 405c Funded Projects

TN P11 – Traffic Records Coordinating Administration and Support

TN P22 – Tennessee Integrated Traffic Analysis Network (TITAN)

TN P41 – Integrated Criminal Justice Portal

TN P52 – Implementation and Maintenance of EMITS and Trauma Registry

TN P53 – Statewide Injury Surveillance System

TN P63 – Development of Predictive Analytics for Traffic Safety

TN P71 – eCitation

TN P72 – eCDR – TITAN Electronic Court Disposition Reporting System

6.1 TN P11 – Traffic Records Coordinating Administration and Support

Contact

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Lead Agency

Tennessee Highway Safety Office/Tennessee Department of Safety

Partner Agencies

Local Law Enforcement Agencies, Department of Finance and Administration, Department of Safety, Department of Transportation, THSO, Department of Health

Priority

High

Status

Active

Project Description

The State has a need for an independent professional management services firm to lead and facilitate the Statewide Traffic Records Coordinating Committee (TRCC) for a variety of current and future information projects that are authorized by the TRCC. This firm will develop better communications between state agencies, federal partners, and local associations to facilitate improved collection, analysis, and dissemination of traffic records data. The firm will provide state and local agencies the ability to properly assess and plan for the safety of the motoring public in Tennessee. The firm will provide a TRCC Project Manager (TRCC PM) or Consultant who will work directly with the TRCC Co-Chairs and the various agencies represented on the TRCC.

Core System and Performance Area

	Performance Area				
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity Accessibility
Crash	✓	✓			✓

Activity Report

Report Start	Report End	Provided By
06-30-2015	06-30-2016	Lt. Marty Pollock

Activity: The vendor responsible for crash data initiatives in Tennessee has transferred the legacy crash data into the new TITAN database. Legislation was passed by the State of Tennessee in the spring of 2012 legislative session that required every local law enforcement agency who investigates a crash in TN submit a crash report to the state electronically by January 1, 2015, thus eliminating paper crash reporting. As of January 1, 2015, Tennessee is receiving 100% of its crash information from the investigators electronically.

The Tennessee Department of Safety & Homeland Security (TDOSHS) plans to continue efforts to work with third party vendors who provide crash report and records management systems to state and law enforcement agencies. The activity is focused on transfer, receipt, and validation of data from LEAs using third party services or systems. TDOSHS continues to design, certify, and provide training to LEAs who implement the state provide TITAN System. The training includes reviews of the crash reporting application, data transmission, and use of the Web Portal to retrieve accepted reports. The training targets all local agency trainers and training officers responsible for the TITAN end user and support personnel.

Currently, 100% of crash reports are being submitted to the TITAN system electronically with over 350 law enforcement agencies submitting data to the system. Back in February 2012, the TITAN Team implemented a mapping enhancement to the TITAN system which provides the ability for officers to capture accurate, reliable crash, citation, and crime locations (latitude/longitude coordinates) without having to rely on GPS devices. This has dramatically increased the timeliness, reliability, availability, and accuracy of crash location coordinates. The accuracy rate has risen to 90-95% when crash locations are captured by the MAP IT program and 90% of local law enforcement agencies utilize it. To increase its use, the remainder are closely monitored, and the TITAN Unit personnel make contact to offer assistance where needed.

TDOT reports they can locate 27,000 crashes per hour and have re-obligated as many as 500 man-hours due to the program efficiency. The original MMUCC 4th Edition Review and has been completed and is uploaded as an attachment to this Project. We are in the process of completing the MMUCC Mapping Process utilizing the newly released NHTSA MMUCC mapping tools. We anticipate the new MMUCC Mapping process will be completed by the end of CY 2016.

Problems: *The* Department of Safety & Homeland Security is implementing and supporting the TITAN System through resources funded by THSO grants. The future of grant funded resources is not a guarantee. A comprehensive data quality program remains a problem and is a major recommendation from NHTSA.

Plans: The TITAN Division has established a mechanism to sell crash reports online which offsets some of the costs associated with maintaining and supporting the TITAN system. This allows for

the grant funding to be used for new development and enhancements listed as recommendations in the 2014 Traffic Records Assessment including a comprehensive data quality program and integration improvements.

Report Start	Report End	Provided By
07-01-2016	05-31-2017	Lt. Marty Pollock

Activity: We have hired a consultant to develop and maintain our Traffic Records Strategic Plan moving forward. The consultant held workshops for each traffic records data system; the workshop attendees reviewed the Traffic Records Assessment recommendations and developed goals, strategies, and expected outcomes for improving Tennessee's traffic records data systems. The consultant assisted the TRCC in developing a TN Traffic Records Strategic Plan that identified the projects that will help the State achieve these goals. The plan will be submitted as part of this year's grant application to NHTSA.

Ongoing funding to continue to support the consultants for administration and maintenance of the strategic plan may be an issue with the anticipated cuts to available grant funding in the upcoming year. Identify funding to continue utilizing consultants for TRCC administration and support and annual updates to the Traffic Records Strategic Plan.

Report Start	Report End	Provided By
06-01-2017	05-31-2018	Patrick Dolan

Activity: The consultant worked with the TRCC to update the Traffic Records Assessment recommendations, goals, strategies, and expected outcomes for improving Tennessee's traffic records data systems. The consultant is assisting the TRCC in developing a TN Traffic Records Strategic Plan that identified the projects that will help the State achieve these goals. The plan will be submitted as part of this year's grant application to NHTSA.

The consultant is tasked with developing a TN Traffic Records Inventory.

TN TRCC has requested a NHTSA Go Team to conduct a MMUCC compliance review for the crash data system and forms.

NHTSA will conduct a Traffic Records Assessment for Tennessee beginning in February 2019. An assessment is required to be completed by May 2019 in order for the State to qualify for Section 405c funds.

Report Start	Report End	Provided By
06-01-2018	05-31-2019	Patrick Dolan

Activity: The state did not retrain the consultant that assisted with the Traffic Records Strategic Plan, but they developed a TN Traffic Records Inventory before the contract expired.

A NHTSA Go Team conducted a MMUCC compliance review for the crash data system and forms and based on the findings, plans are in development to overhaul the crash data system and bring it into compliance with MMUCC version 5.

NHTSA completed a Traffic Records Assessment for Tennessee on April 10, 2019, which keeps the State in compliance with that requirement for Section 405c funds.

Report Start	Report End	Provided By
06-01-2019	05-31-2020	Patrick Dolan

Activity: Activity slowed as the State’s new crash database vendor, IBM, was onboarded. IBM developers conducted discovery and documentation of the TITAN data systems during most of 2019 and have made some minor changes to system elements. This improved the crash data schema to better align with MMUCC, added attributes that improve data quality, and fixed bugs that had persisted in both the collection and the storage of Tennessee’s crash data. The update to MMUCC 5 compliance is still planned under the State’s current contract.

Schedule

October 1, 2020 through September 30, 2021

6.2 TN P22 – Tennessee Integrated Traffic Analysis Network (TITAN)

Contacts

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Lead Agency

Tennessee Highway Patrol, Tennessee Department of Safety & Homeland Security

Partner Agencies

Traffic Records Coordinating Committee, Local Law Enforcement Agencies, Department of Transportation, Federal Motor Carrier Safety Administration, Tennessee Highway Safety Office, Department of Finance and Administration, Federal Highway Administration, Federal Motor Carrier Safety Administration

Priority

High

Status

Active

Project Description

The Tennessee Integrated Traffic Analysis Network (TITAN) solution is comprised of a statewide database and law enforcement data collection clients that provide all law enforcement agencies with client-based field reporting and web-based access to traffic crash reports submitted by their respective agencies. Reports are available for immediate feedback to the submitting agencies,

enabling them to monitor correctness of crash reports. Agencies also can access statistical data relating to their crashes and to conduct their own ad hoc statistical analyses.

Statistical reports, new dashboards and improved data querying capabilities are available online to law enforcement users. The eCrash software is now more streamlined for Property Damage Only >\$400 and Property Damage Only <\$400 crashes to save time and resources for investigating officers.

This project also includes the development of field software for use by Tennessee Highway Patrol and local Law Enforcement Agencies (LEA) to collect crash reports electronically. A web-enabled portal for uploading the crash report data to the Department of Safety's crash database was developed and completed in a prior traffic records project. The web portal provides for the ability to query crash data using ad-hoc or standard reporting templates. The portal also provides for downloading of data and basic statistical summaries by local law enforcement agencies, Municipal Planning Offices (MPOs), Regional Planning Offices (RPOs), and for use in proprietary local record management systems.

In the future, data in TITAN will be available for integration with the other traffic records systems data sets and can be combined to provide highway safety stakeholders with traffic safety information of the highest quality and value.

Project Purpose

This project will improve the quality of crash data available in the state repository. It will also enable LEA's and local engineers to upload and download crash data in a uniform MMUCC-compliant format.

Additionally, the web-based crash system greatly enhances the capability of traffic safety professionals. It enhances their ability to incorporate traffic safety information into problem identification and safety decision-making processes. The traffic analysis network puts in place a tool that aids in determining effectiveness measures for enforcement and non-enforcement intervention programs. The project greatly enhances the accessibility to crash data for analysis. The traffic analysis network enables users to conduct custom analyses as well as access to standard reports. Predictive analytics helps deploy resources when and where they are most needed.

Core System and Performance Area

	Performance Area					
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Crash	✓	✓	✓	✓	✓	✓

Activity Report

Report Start **Report End** **Provided By**
 06-30-2015 06-30-2016 Lt. Marty Pollock

Activity: Legislation was implemented January 1, 2015, which mandates all crash reports must be sent to the Department in an approved electronic format. As a result, the State receives 100% of crashes electronically. 92.6% are received within 7 days of the event, with an additional 6.3% are being received within the following 8 days.

All THP and local agencies retrieve crash reports through the web portal with the additional feature of searching and receiving statistical information of their data. To complement the delivery of crash data and information for all agencies, in mid-2015 every agency can see the details of crashes over previous 12 months in a graph format. This feature allows the user to move the cursor over a month to display the various crash types.

In addition to conducting numerous in-service training sessions for local law enforcement agencies, the TITAN Division began training the TITAN eCrash application to Basic Law Enforcement Recruits at the Tennessee Law Enforcement Training Academy in February of 2016. This is an additional step to ensure the quality collection of data remains a focus for every investigating agency across the state.

During this phase, local agencies were trained to use the TITAN System to investigate and upload crash reports. On-site training was also conducted and, in some instances, Regional Training sessions were scheduled during implementation of a regional strategy for TITAN adoption. 100% of all agencies statewide are now reporting traffic crashes electronically as of January 1, 2015. Tennessee is one of the few states to accomplish this, and one of only several that has the requirement as part of state law.

Over 350+ agencies in Tennessee submit eCrash reports to the TDOSHS using the TITAN system.

The Tennessee Department of Safety & Homeland Security continued to work closely with local agencies to meet their crash data reporting needs. Agencies that send data to the TITAN system utilize the web portal to search for reports, produce statistics, or request any portion of their data to import into their local system(s). In February 2012, we implemented a mapping enhancement

to the TITAN system which allowed officers to capture accurate, reliable crash, citation, and crime locations (latitude/longitude coordinates) without having to rely on GPS devices.

This dramatically increased the timeliness, reliability, availability, and accuracy of crash location coordinates. 100% of the THP utilizes the MAP IT solution and all users of the TITAN software utilize it.

The eCitation and eCDR programs are described and identified as separate projects in this plan but are both components and modules within the TITAN system.

Problems: The State supports the TITAN records management system and all its components with limited resources. In order to maintain an efficient and timely approach to support our improvement efforts after delivery, additional personnel and technology is required.

The State continues to seek efforts to improve our information system. The State identified numerous enhancements and new development needs to meet public safety demands and included those in an expansion request to the vendor contract.

The Department of Safety & Homeland Security is implementing and supporting the TITAN System through resources funded by THSO grants. A self-funding mechanism will ultimately be required to sustain the program indefinitely. The signature requirement on the eCitation is a challenge for local law enforcement to adopt eCitation because it requires additional hardware to capture the image of the signature. Legislation eliminating the signature requirement for a traffic citation would help facilitate adoption.

Plans: Support for both technical and operational needs have been identified and the Command Staff notified.

Faced with cutbacks in state and possibly federal funding, escalating costs, and a demand for higher quality outcomes, the Department has felt the pressure and is answering the call to operate more efficiently. The state is utilizing vendor resources to alleviate the strain of reduced technical resources.

Develop a quality control program that can evaluate the timeliness, accuracy, completeness, and consistency of traffic crash data and report metrics to the TRCC and stakeholders of the traffic records systems. Expand use of the eCitation and eCrime TITAN applications to local law enforcement agencies. Complete development of backend systems to allow for electronic transmission of data between TITAN, the court system, and DMV, TN Fusion Center, and TIBRS. Move the existing intranet-based GIS applications to the Internet and host them under the TITAN web portal, where access is restricted to law enforcement users.

Report Start	Report End	Provided By
07-01-2016	05-31-2017	Lt. Marty Pollock

Activity: The vendor responsible for crash data initiatives in Tennessee has transferred the legacy crash data into the new TITAN database. Legislation was passed by the State of Tennessee in the spring of 2012 legislative session that required every local law enforcement agency who investigates a crash in TN submit a crash report to the state electronically by January 1, 2015, thus eliminating paper crash reporting. As of January 1, 2015, Tennessee is receiving 100% of its crash information from the investigators electronically.

The Tennessee Department of Safety & Homeland Security (TDOSHS) plans to continue efforts to work with third party vendors who provide crash report and records management systems to state and law enforcement agencies. The activity is focused on transfer, receipt, and validation of data from LEAs using third party services or systems. TDOSHS continues to design, certify, and provide training to LEAs who implement the state provide TITAN System. The training includes reviews of the crash reporting application, data transmission, and use of the Web Portal to retrieve accepted reports. The training targets all local agency trainers and training officers responsible for the TITAN end user and support personnel.

Currently, 100% of crash reports are being submitted to the TITAN system electronically with over 350 law enforcement agencies submitting data to the system. Back in February 2012, the TITAN Team implemented a mapping enhancement to the TITAN system which provides the ability for officers to capture accurate, reliable crash, citation, and crime locations (latitude/longitude coordinates) without having to rely on GPS devices. This has dramatically increased the timeliness, reliability, availability, and accuracy of crash location coordinates. Over 96% of crash reports are now received into the system with latitude and longitude location coordinates. This has dramatically increased the efficiency of locating crashes for purposes of resource allocation of engineering, transportation, and law enforcement resources.

TDOT continues to modify and improve their auto-location program to auto-locate crashes on the State's linear referencing system (LRS) based on latitude and longitude coordinates. The MMUCC Mapping Process utilizing the newly released NHTSA MMUCC mapping tools has been completed. We anticipate conducting another MMUCC analysis once the new MMUCC 5th edition is released later this year.

The eCitation and eCDR programs are described and identified as separate projects in this plan but are both components and modules within the TITAN system.

Problems: Grant funding supporting the program will be reduced significantly in the upcoming grant year. However, we continue to support the program with other funding sources and are exploring creative and more efficient ways in which we can continue to serve our customers and make system improvements.

The signature requirement on the eCitation is a challenge for local law enforcement to adopt eCitation because it requires additional hardware to capture the image of the signature. Legislation eliminating the signature requirement for a traffic citation would help facilitate adoption.

Plans: The TITAN Division has established a mechanism to sell crash reports online, which offsets some of the costs associated with maintaining and supporting the TITAN system. This allows for the grant funding to be used for new development and enhancements listed as recommendations in the 2014 Traffic Records Assessment including a comprehensive data quality program and integration improvements.

Faced with cutbacks in state and possibly federal funding, escalating costs, and a demand for higher quality outcomes, the Department has felt the pressure and is answering the call to operate more efficiently. The state is utilizing vendor resources to alleviate the strain of reduced technical resources.

Develop a quality control program that can evaluate the timeliness, accuracy, completeness, and consistency of traffic crash data and report metrics to the TRCC and stakeholders of the traffic records systems. Expand use of the eCitation and eCrime TITAN applications to local law enforcement agencies. Complete development of backend systems to allow for electronic transmission of data between TITAN, the court system, and DMV, TN Fusion Center, and TIBRS. Move the existing intranet-based GIS applications to the Internet and host them under the TITAN web portal, where access is restricted to law enforcement users.

Report Start	Report End	Provided By
06-01-2017	05-31-2018	Christopher Osbourn

Activity: Continuing to maintain system. System is at 100% coverage of reporting agencies. Upgrading the software that interfaces with the barcode scanner to improve vehicle and driver data collection accuracy.

Implemented a new Fatality Tracking System (FTS) software application in the web portal to enhance our ability to capture and store data relating to traffic fatalities.

FARS state SharePoint database to TITAN conversion (the new Fatality Tracking System) is in production. Contractor is working on cleaning up/adjusting reports. This replaced and automated the outdated SharePoint site and improved collection of EMS Data to 100% of Fatal Crashes.

TITAN updates the mapping shape files every six months to allow for increased accuracy when law enforcement geo-locates crashes.

Automate shapefile updates so TITAN users can access the most recent map files available. Allows better administration of the TITAN MAP-IT Tool and better support and troubleshooting on the MAP-IT component. Enhancement improves the way TITAN updates are pushed out to users, allowing a more modern approach and smoother process caused by large map files and slow download speeds with outdated air cards. Continual process improvement in progress with next update testing/support.

The TITAN program has moved the previously intranet based Predictive Analytics / GIS applications to the State hosted Internet site, where resource allocation tools are accessible to local law enforcement statewide.

Problems: Grant funding is anticipated to remain at the same funding levels as the most recent grant year, which roughly half of the historical funding levels. However, we continue to support the program with other funding sources (including State funding) and are exploring creative and more efficient ways in which we can continue to serve our customers and make system improvements.

Plans: TITAN will be participating in NHTSA's Electronic Data Transfer (EDT) program for crash data. This program involves States exporting crash data to NHTSA in a standardized electronic format. This will reduce the data entry requirements of State FARS personnel by 70 percent. A data export module will be added to TITAN to format and transmit crash data to NHTSA. Completion of these efforts is currently scheduled by end of calendar year.

The TITAN project will begin development efforts on TITAN client and database rewrites/upgrades including MMUCC Version 5 compliance upgrades.

Develop a quality control program that can evaluate the timeliness, accuracy, completeness, and consistency of traffic crash data and report metrics to the TRCC and stakeholders of the traffic records systems.

Continue to expand the use of the eCitation TITAN applications to local law enforcement agencies.

Continue to maintain and develop backend systems to allow for electronic transmission of data between TITAN, TRIMS, the court system, and DMV, TN Fusion Center, and TIBRS.

Report Start	Report End	Provided By
06-01-2017	05-31-2018	Christopher Osbourn

Activity: Continuing to maintain system. System is at 100% coverage of reporting agencies.

Completed deployment of the Fatality Tracking System (FTS) to the database environment to enhance our ability to report on data related to traffic fatalities.

Completed migration of data from the FARS SharePoint database to TITAN FTS. This replaced and automated the outdated SharePoint site and improved collection of EMS Data to 100% of Fatal Crashes.

TITAN updates the mapping shape files every six months to allow for increased accuracy when law enforcement geo-locates crashes.

Automate shapefile updates so TITAN users can access the most recent map files available. Allows better administration of the TITAN MAP-IT Tool and better support and troubleshooting on the MAP-IT component. Enhancement improves the way TITAN updates are pushed out to users, allowing a more modern approach and smoother process caused by large map files and slow download speeds with outdated air cards. Continual process improvement in progress with next update testing/support.

TITAN began participating in NHTSA's Electronic Data Transfer (EDT) program for crash data. This program involves States exporting crash data to NHTSA in a standardized electronic format

and reduces the data entry requirements of State FARS personnel by 70 percent. A data export module was added to TITAN to format and transmit crash data to NHTSA.

TITAN contracted with a new vendor for maintenance and development of its data systems. Discovery and documentation of the current TITAN system started in January 2019.

Problems: Grant funding is anticipated to remain at the same funding levels as the most recent grant year, which roughly half of the historical funding levels. However, we continue to support the program with other funding sources (including State funding) and are exploring creative and more efficient ways in which we can continue to serve our customers and make system improvements.

Plans:

The TITAN project will begin development efforts on TITAN client and database rewrites/upgrades including MMUCC Version 5 compliance upgrades.

Development of a quality control program that can evaluate the timeliness, accuracy, completeness, and consistency of traffic crash data and report metrics to the TRCC and stakeholders of the traffic records systems is underway.

Continue to expand the use of the eCitation TITAN applications to local law enforcement agencies.

Report Start	Report End	Provided By
06-01-2019	05-31-2020	Patrick Dolan

TITAN continues to maintain and develop backend systems to allow for electronic transmission of data between TITAN, TRIMS, the court system, and DMV, TN Fusion Center, and TIBRS.

Activity: Continuing to maintain system. System is at 100% coverage of reporting agencies.

TITAN updates the mapping shape files every six months to allow for increased accuracy when law enforcement geo-locates crashes.

TITAN contracted with a new vendor for maintenance and development of its data systems. Discovery and documentation of the current TITAN system started in January 2019. Discovery and documentation are complete. Bug fixes and module enhancements are currently being deployed, and discussion is underway for updating the TITAN collection tool to an online client. Revisions to update TITAN to MMUCC 5 compatibility are planned for later this year.

Schedule

October 1, 2020 through September 30, 2021

Performance Measures

See *Section 5.1.4 Crash Completeness* for performance measure.

Crash Timeliness

Label: C-T-2

Status of Improvement: Demonstrated Improvement

Active Status: Active

Last Updated: May 30, 2019

Related Project: TITAN

Narrative

This performance measure is based on the C-T-2 NHTSA Model Performance Measure.

Tennessee will improve the Timeliness of the Crash system as measured in terms of a Decrease of:

The percentage of crash reports entered into the database within 7 days after the crash.

The state will show measurable progress using the following method:

The percentage of crash reports entered into the database within 7 days of the crash report using a baseline period of April 1, 2018 to March 31, 2019 and a current period of April 1, 2019 to March 31, 2020.

The numbers in this performance measure represent all crashes entered into the state crash database from all state reporting agencies.

There were 247,945 crash reports during the baseline period with 89.80% entered within 7 days of the crash. There were 244,446 crash reports during the current period with 90.47% entered within 7 days of the crash.

The result is an increase in timeliness of 0.67%.

Measurements

Start Date	End Date	Total Reports	Percent Entered <= 7 days
April 1, 2014	March 31, 2015	214,750	79.0%
April 1, 2015	March 31, 2016	241,697	86.4%
April 1, 2016	March 31, 2017	245,508	88.9%
April 1, 2017	March 31, 2018	247,843	85.93%
April 1, 2018	March 31, 2019	247,945	89.80%
April 1, 2019	March 31, 2020	244,446	90.47%

Supporting Materials (Backup)

The screenshot displays the Microsoft SQL Server Management Studio interface. The main window shows a SQL query in the editor, and the bottom pane shows the results of the query.

SQL Query:

```

1 SET NOCOUNT ON
2 ;
3 With tblDaysDelayed As
4 (
5     Select Distinct
6     H.MSTRRECNRBTXT,
7     H.REASONIDNMB,
8     H.ENTRYDATE,
9     C.CollisionDte,
10    DATEDIFF(d, Cast(Convert(char, C.CollisionDte, 112) As datetime), Cast(Convert(char, H.ENTRYDATE, 112) As datetime)) As [DaysDelayedNmb]
11
12 From
13 DataTblCollision C
14 left outer join DataTblHistory H
15     on C.StatusCde = H.StatusCde
16     and C.MstrRecNbrTxt = H.MstrRecNbrTxt
17
18 Where
19 C.StatusCde = 'AC'
20 and H.REASONIDNMB in(110,111)
21 and Cast(H.ENTRYDATE As date) between '4/1/2018' and '3/31/2019'
22 and C.TrafficwayTypeCde in('01','02')
23 and C.CrashTypeCde in('01','02','03','04','05','00')
24 )
25
26 Select
27 D.DaysDelayedNmb,
28 Count(Distinct D.MSTRRECNRBTXT) As [ReportsNmb]
29
30 From
31 tblDaysDelayed D
32
33 Group By
34 D.DaysDelayedNmb
35
36 Order By
37 D.DaysDelayedNmb asc
38 ;
    
```

Query Results:

DaysDelayedNmb	ReportsNmb
-118	1
-36	1
-20	1
-8	1
-1	1
0	77975
1	69281
2	20929
3	10364
4	7684

The status bar at the bottom indicates: "Query executed successfully."

Crash Uniformity

Label: C-U-01

Status of Improvement: No Status

Active Status: Planned

Revision Date: May 30, 2019

Narrative

This performance measure is based on the I-U-02 model performance measure.

Tennessee will improve the Uniformity of Crash reports as measured in terms of an increase in the number of MMUCC V5 compliant data entered into the crash database.

The state will show measurable progress using the following method: Count the number of MMUCC V5 data elements in the new crash report versus the number collected during the baseline period.

This performance measure demonstrates an increase in uniformity of crash reports during the performance period as compared to the baseline period.

Developer resources were needed to address more urgent issues with the TITAN system. Despite this we have planned for the addition of two MMUCC 5 compliant data elements to be added to the June release of the TITAN software with additional data elements planned for release later in 2020.

Measurements

Start Date	End Date	MMUCC V5 Elements
April 1, 2017	March 31, 2018	<i>Awaiting NHTSA MMUCC V5 Compliance Testing Results</i>
April 1, 2018	March 31, 2019	<i>Engaged in discovery and documentation in preparation for rebuild of the crash database.</i>
April 1, 2019	March 31, 2020	<i>Minor MMUCC 5 updates are in development for release throughout the second half of 2020.</i>

6.3 TN P41 – Integrated Criminal Justice Portal

Contact

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Lead Agency

Administrative Office of the Courts – Integrated Criminal Justice Program

Partner Agencies

Dept. of Safety, Tennessee Highway Patrol

Priority

Medium

Status

Active

Project Description

This project will affect the development of a Criminal Justice Web Portal. In 2004, the ICJ Steering Committee proposed a Criminal Justice Web Portal (Portal) to provide a single point of access for multiple agencies' data through a secure web browser. In 2006, the Tennessee Legislature passed TCA 16-3-814: Integrated Criminal Justice Act of 2006. Two other TCAs were also passed, 16-3-815 established the Integrated Criminal Justice Steering Committee; 16-3-817 established the goals for the Integrated Criminal Justice Program; and 16-3-820 established the hiring of personnel to manage the Integrated Program.

Phase I of the Portal was proof-of-concept and eliminated the need to conduct separate searches across various systems to access information for a specific person. The Portal allows 'read-only' access for law enforcement and justice-affiliated agencies to query the original data source rather than a periodic file extract, repository or data warehouse.

In October of 2006, Tennessee began rollout of access to the Criminal Justice Portal across the State and included 1,200 THP users. This first phase provided query access to the data provided by Tennessee Department of Safety & Homeland Security. Approved users have access to Driver's License information including photographs; Title & Registration information; Tennessee Department of Correction's information including mug shots, scars, marks, tattoos; Tennessee

Board of Paroles' active Parole Violation Warrants; and the Tennessee Bureau of Investigation (TBI) - Sex Offender Registry and Wanted Person Files, including photographs.

On June 19, 2008, Phase II of this project deployed providing access to Driver History Data, Historical Photos and Signatures with print capabilities of Certified Driver Records; TBI's Protection Orders, and Wanted Persons; and the Board of Parole's active Parole Violation Warrants. A connection to TBI's Wanted Persons (Warrants) was completed and deployed on September 29, 2009.

On July 20, 2010, Phase III of the Criminal Justice Web Portal was deployed. This Phase provided a redesigned search engine with additional search capabilities at the individual database level and access to new and enhanced sources of information such as stolen vehicle and plate information; adjacent counties search filter; and enhancements to the Department of Correction's information. This phase also provided a de-confliction feature, for law enforcement only, allowing records to be flagged for the collaborating of law enforcement officers throughout the State.

On October 28, 2010, the Arrest Event System (AES) was implemented. AES contains arrest information acquired from the Live Scan devices located in booking agencies throughout the State.

AES also provides the Tennessee Department of Correction with a daily report of offenders' currently on probation and parole arrests. The AES project is fully functional with 90% effectiveness in reporting the re-arrest of offenders who are on parole/probation. Probation and Parole officers, supervisors, and district managers who have entered or verified the existing State ID (associated with fingerprints) with the Tennessee Offender Management Information System (TOMIS) ID for all the people they supervise; are automatically notified by email when someone under their supervision has been arrested throughout the State. The reconciliation of the existing State ID and TOMIS ID is less than 1% with a .03 percentage reconciliation for Probation and Parole. Additionally, this system has statistical reporting capabilities available.

On February 26, 2013, Phase IV began. This Phase enables users with both ICJ Portal access and Tennessee Dangerous Drugs, (DI3) access to login once and access all databases accessible from ICJ Portal and DI3 databases. This Phase was completed December 2015 and is in Production.

In 2013, legislation was passed allowing for Tennessee to grant access to the ICJ Portal with out-of-state law enforcement agencies.

In December 2016, Phase V was implemented. This phase allows authorized ICJ portal users to search for the final criminal judgment documents that are housed in a statewide repository. Users will be able to view the final judgment of criminal cases throughout Tennessee. This Phase will provide law enforcement with immediate access to criminal judgment documents which contains the outcome of their criminal cases.

In March 2017, the Integrated Criminal Justice Program entered into a Charter with the Tennessee Dangerous Drugs Task Force (DI3 database) and the Tennessee Highway Patrol (TITAN database) to form the Tennessee Identity Exchange Management (TIEM) Working Group.

The Group will establish a Tennessee federation of data sharing with single sign-on capabilities. The main purpose of this Group is to help law enforcement officers in Tennessee by reducing the number of user credentials they must maintain for accessing different intelligence systems, while increasing the speed and efficiency of their ability to access the information needed. The Group focus is to acquire access to federal and additional state intelligence systems, thus providing a one-stop-shop for law enforcement to access data.

Project Purpose

The ICJ Portal is a secure browser-based interface into the State (TN) criminal justice agencies' databases. The purpose is to provide THP, law enforcement agencies and justice affiliated agencies, single sign on access to the Criminal Justice Web Portal. This eliminates the need for agencies to conduct separate searches across various systems to access critical information for a specific person.

The Integrated Criminal Justice Program has implemented the Automated Case Judgment project in the 26th Judicial District. This Program allows ICJ portal users access to final criminal judgment orders from across the State (TN). This project will save time, save lives, improve information sharing, and enhance the public safety of Tennessee's citizens. The ICJ team will conduct a study on accessing DUI Disposition information from the official agency of record and consider the possibility of adding access of this DUI Disposition information to the Portal.

Milestones

Milestone Description	Target Date	Actual Date	Status
Begin full roll-out throughout state (including 1200 THP users)	10-01-2006	10-01-2006	Completed
Determine levels of security for driver history	05-15-2007	05-15-2006	Completed
Determine appropriate users for driver history access	05-30-2007	05-30-2007	Completed
Implementation of driver history to portal	07-30-2007	07-30-2007	Completed
Provide Access to Driver History via Portal to All Appropriate Users	09-01-2007	09-01-2007	Completed
Increase CJ Portal awareness across multiple organizations	09-30-2009	09-30-2009	Completed
Completion Phase III – Re-engineering Searches	06-30-2010	03-08-2011	Completed
Completion Phase III – Re-engineering Searches	06-30-2010	02-01-2011	Completed
Completion Phase IV – New Infrastructure	12-15-2010	12-01-2010	Completed

Milestone Description	Target Date	Actual Date	Status
CJ Portal – Add access to indicators for Stolen: Vehicle, License Plate, License plate Sticker	12-15-2010	02-28-2011	Completed
Completion Phase - New Infrastructure	12-15-2010	09-14-2012	Completed
Phase IV Single Sign-on with TN Dangerous Drugs Task Force Portal (D13) – Law Enforcement from either D13 or ICJ Portal will be able to login once to either system and gain access to the other system.	08-03-2015	12-19-2015	Completed
Phase V – Automated Case Judgment – Automating the case judgment across Tennessee will eliminate the redundancy in producing this document by the 5 agencies currently using it today. The automation process will provide the law enforcement and criminal justice community with data integrity and reduced delays in the flow of information between agencies.	10-31-2015	01-27-2017	Completed
Phase V – Modification are planned for the Automated Case Judgment system which will broaden the scope a user has to search for judgments.	09-30-2018	12-19-2015	Outstanding

Core System and Performance Area

	Performance Area					
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Driver License / History			✓			✓
*Citation / Adjudication						✓
Vehicle Registration			✓			✓

**Citation information can only be viewed via the ICJ Portal. There are no reporting capabilities available from the ICJ Portal; only access to view violations.*

Activity Report

Report Start **Report End** **Provided By**
 05/31/2015 05/31/2016 Deborah Stewart

Activity: Tennessee Integrated Criminal Justice (ICJ) Program continues to work towards improving the criminal justice community. The Automated Case Judgment (ACJ) project was implemented in Judicial District 21 as beta the fall of 2015. ACJ went live in Judicial District 26 the summer of 2016. The purpose of this project is to produce a web-based system which

electronically make final judgment orders available to authorized agencies across the State of Tennessee. The Integrated Criminal Justice Portal also interfaces with the ACJ Repository thus providing law enforcement agencies access to retrieve or view final criminal case judgment forms.

In December 2015, the ICJ Portal launched Phase IV of the Portal, the Single Sign-on project with Tennessee Dangerous Drugs Task Force (DI3). This Phase allows law enforcement officers to log into the ICJ Portal and DI3 with just one user id and password. Traffic on the DI3 site has more than doubled since granting law enforcement single sign-on capabilities.

Problems: The ICJ Program continues to be a tool used by many justice-affiliated agencies across the State of Tennessee for accessing multiple State agencies databases. Providing access to multiple agencies’ data can sometimes prove to be cumbersome if that agency experiences a connection loss or loss of power.

Plans: The ICJ Program will continue to work towards expanding access for the criminal justice community to multi-agencies’ data across the State of Tennessee and surrounding areas. The law enforcement community has expressed a need to perform photo lineups from within the ICJ Portal. This feature has been listed as a future enhancement. Efforts to expand the single sign-on capabilities of the ICJ Portal is underway.

Report Start	Report End	Provided By
07-01-2016	05-31-2017	Deborah Stewart

Activity: The Integrated Criminal Justice Program continues to work in conjunction with TBI, Tennessee Department of Correction and Parole, Tennessee Department of Revenue, Tennessee Dangerous Drugs Task Force and the Tennessee Department of Safety to provide one-stop information. The Automated Case Judgment (ACJ) System will continue statewide rollout after the STS server upgrades have been completed. The AOC’s development staff will have to migrate the ACJ application to the new servers and test the migration before rollout can resume.

In March 2017, the Tennessee Identify Exchange Management (TIEM) Working Group signed a working Charter. The Group will establish a Tennessee federation of data sharing with single sign-on capabilities.

To date, the ICJ Portal has 544 agencies deployed throughout the state with law enforcement making up 97 percent. There are a total of 10,680 users consisting of:

258	Police Departments	17	Drug Task Forces
12	911 Centers	64	Courts
23	State Agencies	41	Federal Agencies
92	Sheriff’s Offices	11	Miscellaneous
26	District Attorneys		

Problems: In April 2017, the Tennessee Department of Financial and Administration – Strategic Technology Solutions division contracted to provide support and maintenance for the Integrated

Criminal Justice Portal. The support calls have increased due to this fact because the new support agency is not familiar with all the ICJ Portal's procedures. STS also changed the billing processed which currently has created issues for the federal agencies that have access.

Plans: In March 2017, the Tennessee Identity Exchange Management (TIEM) Charter was signed by the TBI Director, AOC Director and a representative for the Tennessee Department of Safety – Highway Patrol. TIEM is exploring the possibilities of providing law enforcement with single sign-on access to federal and other state intelligence databases.

The Integrated Criminal Justice Program staff will continue to rollout the Automated Case Judgment system across Tennessee with a projected completion date of December 2019. Focus will also be placed on securing single sign-on access to federal and other states' intelligence databases.

Report Start	Report End	Provided By
06-01-2017	05-31-2018	Deborah Stewart

Activity: The Integrated Criminal Justice Program continues to work in conjunction with TBI, Tennessee Department of Correction and Parole, Tennessee Department of Revenue, Tennessee Dangerous Drugs Task Force and the Tennessee Department of Safety to provide one-stop information. The Automated Case Judgment (ACJ) System has been piloted in the 26th Judicial District. The AOC and STS development staff moved the ACJ application to new servers, along with updating both Adobe and Laserfiche to their latest versions.

The ACJ judgment form is currently in a pdf format. This format will not work with Microsoft Edge and therefore will have to be converted to HTML5 format. The ACJ team is exploring options to migrate the current pdf form to an HTML5 format.

The Tennessee Identify Exchange Management (TIEM) Working Group has received requirements to partner with EPIC to share data. EPIC is regulated by Federal guidelines and those changes would have to be implemented for both the Integrated Criminal Justice Program and the Tennessee Dangerous Drug Task Force before becoming a single sign-on partner and sharing their data.

To date, the ICJ Portal has 551 agencies deployed throughout the state with law enforcement making up 97 percent. There are a total of 11,095 users consisting of:

264	Police Departments	17	Drug Task Forces
12	911 Centers	65	Courts
23	State Agencies	41	Federal Agencies
92	Sheriff's Offices	11	Miscellaneous
26	District Attorneys		

Problems: The Automated Case Judgment (ACJ) system is currently still in Pilot mode. The 26th Judicial District is the only judicial district using this system. The District Attorney General's Office encountered some problems with their case management system, Justware. Justware cannot in

its current state, receive data or forms from the ACJ system. The DAs Conference is working with a vendor to correct all outstanding issues.

Plans: There currently is legislation which references the Automated Case Judgment system as a method to distribute needed information contained on the Judgment form to other State agencies which will require the reporting of the criminal case judgment to additional State agencies.

Schedule

October 1, 2018 through September 30, 2019

Performance Measures

A-X-1 – Criminal Justice Portal Accessibility

Status of Improvement: Demonstrated Improvement

Active Status: Active

Last Updated: April 10, 2018

Narrative

This performance measure is based on the A-X-1 model performance measure.

Tennessee will improve the Accessibility of the Citation / Adjudication system as measured in terms of an Increase of:

The number of criminal justice portal users.

The state will show measurable progress using the following method:

This will be measured by an overall increase in the number of users subscribed to the criminal justice portal.

2012:	7,600	2016:	10,178
2013:	8,312	2017:	10,680
2014:	8,489	2018:	11,095
2015:	9,743		

6.4 TN P52 – Implementation and Maintenance of TNEMSIS and Trauma Registry

Contact

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Lead Agency

Tennessee Department of Health – Emergency Medical Services

Partner Agencies

TRCC Emphasis Area V, 195 ambulance services, 14 trauma centers and 4 comprehensive regional pediatric centers, Tennessee Department of Health, Office of Population Health Assessment, Office of Vital Records, and Office of Vital Statistics

Priority

High

Status

Active

Project Description

This project encompasses the contracting with a commercial vendor to support of the state ambulance run reporting system (Tennessee Emergency Medical Service Information System – TNEMSIS) and the state trauma registry. TNEMSIS is National EMS Information System (NEMSIS) compliant for 3.4.0 and the rules of the state EMS Board require 100% reporting of all ambulance runs. The state trauma registry (TNTR) will use the same commercial vendor for the submission process for trauma centers and comprehensive regional pediatric centers (CRPC's) to submit trauma registry data. Rules of the Board for Licensing Healthcare Facilities (BLHCF) require that all trauma centers (14) and CRPC's (4) report their trauma patient data to the state trauma registry.

Project Purpose

This project is needed to provide funding to continue support for these databases. The Tennessee Office of EMS needs the capability to analyze data from TNEMSIS and the state Trauma Registry. Data analysis will assist in determining the number of patients that are transported via ambulance to trauma centers and

other hospitals because of traffic accidents. It will also provide the ability to link transport and treatment costs with specific accidents. This will enable us to develop predictive analysis regarding healthcare cost and human consequences of traffic crashes. Developmental costs have been funded by state funds but the capability to receive data and generate reports has been funded by federal EMS/Trauma grant funds. That federal program has been terminated and Section 408 grant funds are needed to continue support for these databases. Both TNEMSIS and Trauma Registry data will become components of the Injury Surveillance System. TNEMSIS will also be used to supply EMS data to the state FARS office.

Progress – Trauma Registry

Fourteen trauma centers and four comprehensive regional pediatric centers (CRPC's) continue to submit patient data to the trauma registry. The trauma registry has now received twelve full years of trauma center and CRPC data. Over twenty thousand records, per year average, were received for the period 2007 through 2019.

The state trauma registry uses a contracted third-party vendor for the receipt of trauma registry data from trauma centers and CRPC's. Trauma centers and CRPC's can generate reports from the state registry on the incidences of trauma affecting their own facility.

The Trauma Care Advisory Council presents annually to the General Assembly a Trauma Care in Tennessee report. Data contained in this report is received from designated trauma centers and CRPC's reporting to the state trauma registry. Tennessee's trauma registry data dictionary and the draft procedures/protocol manual for the release of data from the trauma registry are now complete.

Problems –Trauma Registry

Trauma registry data prior to 2019 will be unavailable for review due to the inability to identify ICD 10 diagnosis codes, complication and comorbidity fields, and procedure codes.

Plans – Trauma Registry

A software platform to handle both trauma registry and EMS data submissions is currently being implemented. Performance measures will be developed to assure appropriate reporting and compliance with trauma registry data dictionary fields. Data linkage opportunities will be identified.

Progress – TNEMSIS

The TNEMSIS system is live and accepting patient care reports from EMS agencies that are licensed to operate in the State. TNEMSIS is compliant with version 3.4.0 of the National EMS Information System (NEMSIS) and auto submission of required elements to NEMSIS is underway.

Problems – TNEMSIS

The Office of EMS continues to investigate integrating EMS and the trauma registry data. This should be made possible due to same vendor for Trauma Registry data and EMS data collection. A goal of the integration will be for trauma centers to receive higher percentages of ambulance run information from the trauma registry.

Plans – TNEMSIS

A software platform to handle both trauma registry and EMS data submissions is currently being implemented. Performance measures will be developed to assure appropriate reporting and compliance with TNEMSIS standards. Data linkage opportunities will be identified.

Milestones

Milestone Description	Target Date	Actual Date	Status
Upgrade to TNEMSIS	07/31/2018	4/1/2019	Completed
Collect 65% of ambulance run reports statewide	9/01/2019	12/1/2019	Completed
Develop updated Trauma Registry Data Dictionary	12/01/2019	02/15/2019	Completed
Complete the policy to release Trauma Registry data	12-31-2019		Ongoing
Complete the policy to release TNEMSIS data	12-31-2019		Ongoing

Core System and Performance Area

Performance Area						
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Injury Surveillance/ EMS	X	X		X		

Performance Measures

[See attached supporting documentation](#)

6.5 TN P53 — Statewide Injury Surveillance System

Contact

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Lead Agency

Tennessee Department of Health

Partner Agencies

TRCC Emphasis Area V, Department of Transportation, Department of Safety & Homeland Security

Priority

High

Status

Active

Project Description

The Injury Surveillance System (ISS) gathers information about fatal and non-fatal injuries from Vital Records data and Hospital Discharge data respectively. The Injury Surveillance System works to integrate this information about injuries sustained with other data systems such as TITAN. With the integrated data, the ISS produces reports useful to the understanding and prevention of injuries in Tennessee.

Project Purpose

The purpose of the Injury Surveillance System is to broadly provide an understanding of injuries that occur, as well as their causes and effects, in Tennessee. In addition, the Injury Surveillance System strives to provide data support to agencies who are working to prevent injuries.

Milestones

Milestone Description	Target Date	Actual Date	Status
Develop a path for TRCC members to access Injury Record Data	09/01/2019		Ongoing
Create a link between HDDS and TITAN data	12/31/2018		Ongoing
Develop Data Quality measures for ISS constituent data	07/01/2019		Ongoing
Develop a unified Injury Data set.	05/31/2019		Ongoing

Core System and Performance Area

Performance Area						
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Injury Surveillance/ EMS	X		X			X

Activity Report – Injury Surveillance

Report Start	Report End	Provided By
05-31-2019	05-31-2020	Jennifer Kline

Activity: Staff members have continued to work towards the project milestones. A contract draft to allow for injury-related data sharing between the Injury Surveillance System and TITAN Business Unit has been completed and has been reviewed by TDH’s Office of General Counsel. The contract draft has been sent to the Office of Informatics and Analytics, Strategic Technology Solutions, and Procurement for review.

Staff members have also tested several ways to link TITAN data to hospital discharge data and have decided on a method that will be used. It has been tested on a subset of the data. Once linkage quality measurements are established, further tests will be done to see if improvements to the methods can be made. Staff members have updated their guides according to the new Injury Standards that were released so that all injuries in the datasets are included when the unified injury dataset is developed.

Staff members have begun working with Vital Statistics to address data quality improvements.

Problems: The process of gaining permission to share health data with partners outside of TDH has continued to be very involved.

Plans: Injury Surveillance System staff members plan to establish data linkage quality measurements to keep track of how well the linking methods are performing and evaluate whether changes need to be made. Staff will also use the linking method to match TITAN crash data with deaths from the Death Statistical System. Efforts to address data quality improvements with Vital Statistics will also continue.

Report Start	Report End	Provided By
05-31-2018	05-31-2019	Benjamin Crumpler

Activity: The Office of Injury Surveillance has been working to achieve the listed milestones.

ISS has established a repository which will allow for controlled access of record level Injury data to sister agencies. Currently the ISS staff is working with counsel to develop a contract between ISS and TITAN business unit to allow for the sharing of Injury related data.

ISS staff has developed several candidate methods for linking TITAN and HDDS data. So far, the best candidate has successfully linked 85% of serious injuries with Hospital Records. Staff believes they can still improve upon this method.

ISS has developed a completeness report for death data, based on the NHTSA data quality measures.

Problems: There have been a few challenges to achieving these milestones. The process of gaining permission to share health data with any partners outside of the Department of Health has been more involved than originally anticipated. In fact, a data release committee was established to aid in these sorts of projects. This has slowed not only the goal of establishing a way of sharing data, but also establishing a link between the HDDS and TITAN data.

In 2015, both death and Hospital Discharge data systems underwent changes to the format and production of the data systems. In particular, HDDS saw a massive update in how it reports diagnoses. The amount of time it has taken

to develop new standards of what constitutes an injury took longer than expected. These first standards are now expected in June 2019. This issue has slowed the production of the updated injury data set.

Plans: ISS plans to continue working towards the listed milestones. ISS staff will continue develop the contract between ISS and the TITAN business unit. It is expected to be completed by the end of the year. With its completion ISS will be able to share injury data with TITAN and we expect to be able to more quickly develop an effective method of linking the two systems together.

With the release of the new Injury standards, we should also be able to relatively quickly develop a distinct Injury data set, that will include links between HDDS and death.

Lastly, ISS staff hopes to work with Vital Statistics and Health Statistics in order to improve the data quality report. We hope to develop a report that both offices will find useful and will lead to improved quality of injury data. Additionally, we hope to expand the report to cover HDDS data, as well as cover data quality metrics besides completeness in key variables.

Report Start	Report End	Provided By
05-31-2017	05-31-2018	Benjamin Crumpler

Activity: Using information from the Death Statistical System, Hospital Discharge Data System and Crash Data through TITAN, the Injury Surveillance System (ISS) has produced reports reviewing injuries in the state. These reports are disseminated to relevant stakeholders.

Additionally, the Injury Surveillance System continues to work to integrate the constituent data sets in order to provide a clearer picture of the full costs of injuries as well as identifying risk factors in order to prevent them.

Problems: Several changes have occurred within the constituent data sets of the Injury Surveillance System. These changes have either changed the structure of the data sets or changed how the data is accessed. Therefore, ISS staff will continue to work with its partners to maintain access to the data and change ISS systems to be able to use newly structured data.

Plans: The Office of Injury Surveillance plans to continue producing regular reports on injury with a focus on injuries related to transportation. ISS plans to continue adapting to the new data sets and improve the integration between surveillance system and the data sets. ISS looks forward to working with the Highway Safety Office to develop at least one performance measure for the surveillance system.

Performance Measures

TN-PM531 – Measure Databases Linked

The Injury Surveillance System repository now contains death data from the Death Statistical System for years 2007-2018, hospital discharge data from the Hospital Discharge Data System for years 2007-2018, and crash data from TITAN for years 2008-2019. Initial linking has begun but data linkage quality measurements have not yet been established. So far, the linking method we have chosen looks very promising for records that do not have missing values in our selection criteria variables.

TN-PM532 – Measure ISS Data Elements

The ISS coordinator is working with Hospital Discharge Data System and Vital Statistics staff to develop useful reports concerning the six NHTSHA measures. To date, ISS has developed a completeness report which aids Vital Statistics in identifying important variables that often go unreported. This report has shown that the new Electronic Death Record System has greatly improved the number of Valid SSNs reported, but it also shows that other variables' data collection and verifications can be improved.

TN-PM533 – Measure ISS Data Set Usage

The Injury Surveillance System's team has received and completed 4 data requests since 5/31/2019. This excludes standard data requests such as those from FARS.

6.6 TN P63 – Development of Predictive Analytics for Traffic Safety

Contact

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Lead Agency

Tennessee Department of Safety & Homeland Security

Partner Agencies

Tennessee Highway Safety Office

Priority

Medium

Status

Active

Project Description

The Research, Planning and Development division of TDOSHS conducts traffic safety data research and analyses to mitigate the dangers of driving on public roads in Tennessee. Establishing a new predictive analytics program will help to deploy resources when and where they are most needed. RPD will utilize crash, arrest, citation, weather, special event, and other pertinent data to allocate limited personnel in specific areas and hours where and when, historically, traffic crashes, impaired driving incidents, and crimes have occurred. RPD uses IBM SPSS Modeler software that has been purchased specifically for this task. Two Statistical Analyst 4 positions were added in RPD to oversee the daily operations of this project. Dashboards have been developed in the TITAN portal to disseminate the information to decision makers.

Predictive models are run to generate risk predictions for the target time period. Results are mapped in ArcGIS and provided to users via web-based maps using ArcGIS for Server. Models are run and maps updated as appropriate for the subject model, with supplemental information included on the maps.

Milestones

Milestone Description	Target Date	Actual Date	Status
Purchase IM ThinkCentre computers for use with SPSS Modeler	03-01-2013	03-01-2013	Completed
Purchase SPSS Modeler software	03-01-2013	03-01-2013	Completed
Purchase IM Cognos business intelligence software	09-01-2013	08-01-2013	Completed
Hire two Statistical Analyst 4 positions	10-01-2013	10-01-2013	Completed
Complete training on SPSS Modeler software	12-31-2015	12-31-2015	Completed
Complete training on Cognos software	08-31-2014	08-31-2014	Completed
Implement GIS Predictive Model Allocation Tool – Crash	06-01-2014	06-01-2014	Completed
Implement GIS Predictive Model Allocation Tool – DUI	06-01-2014	06-01-2014	Completed
Implement GIS Predictive Model Allocation Tool – CVE	09-01-2014	04-08-2015	Completed
Retrain Predictive Models	04-01-2016	Dec 2018	Completed
Determine need for individual THP District models	12-01-2015	Jul 2018	Completed
Implement Dashboards – Crash	08-01-2014	10-01-2014	Completed
Implement Tableau Reporting for Fatalities	05-01-2019	11/01/2019	Completed
Implement Tableau Reporting for Crash Types K&A	05-01-2019	Mar 2019	Completed
Implement Tableau Reporting for Trooper Activity	05-01-2019	In progress	Behind Schedule
Deploy Commercial Vehicle Crash dashboard	01-01-2020	Feb 2020	Completed
Deploy Holiday period infographics	12-01-2019	Feb 2020	Completed

Core System and Performance Area

	Performance Area
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Core System	Accuracy Completeness Integration Timeliness Uniformity Accessibility
Crash	✓

Activity Report

Report Start **Report End** **Provided By**
 06/30/2015 06/30/2016 Patrick Dolan

Activity: Predictive models have been implemented for Serious Crashes (Predictive Crash Analytics [PCA] model), DUI-related crashes and arrests (DUI model), and Commercial Vehicle crashes (CMV model). Risk predictions are provided via web-based maps utilizing ArcGIS. Supplemental information as requested by users, specific to the risk subject, is also provided on the predictive maps to enhance map information.

Dashboards disseminating crash, fatality, and trooper activity information have been developed to provide accessibility to various traffic-related safety data managed by the THP.

Problems: The subject events of these models – serious (fatal and incapacitating injury) crashes, DUI-related arrests and DUI-related crashes, and Commercial Motor Vehicle crashes – are low-frequency incidents. Thus, the range and variability of the risk values generated within some of the models is lower than would be expected under ideal conditions. Therefore, the results of each model are evaluated to determine the most appropriate time range for output of risk values and averaging of results, as well as the optimal method for mapping the resulting risk values.

Additionally, data selected for dashboard presentation was derived from a variety of sources and databases. Use of the data in the dashboards was found to be challenging in some cases. To address this issue, crash and fatality dashboards were implemented in the TITAN portal that draw exclusively from TITAN data, with Trooper Activity dashboards forthcoming.

Plans: The Department plans to continue to maintain, sustain, and if possible, expand the program to local users in the coming year.

Report Start **Report End** **Provided By**
 07-01-2016 05-31-2017 Patrick Dolan

Activity: Since 2013, the Department has successfully deployed three predictive models: The Fatal and Serious Injury Crash Model, the Impaired Driving Model, and the Commercial Motor Vehicle Enforcement Model. These GIS-based tools are available to all state employees. We are currently rebuilding the Fatal and Serious Injury Crash Model. This rebuild will make the model appropriate for use at the county level, and the Department intends to make the updated predictive analytics tool available to our external law enforcement partners.

We continue to receive state and national recognition for the program across numerous media outlets. We also periodically provide predictive analytics training presentations to other state and

federal agencies. In 2017, THP participated in The Discovery project, a joint initiative between IBM and the Yale School of Management. Using TDOSHS data, Yale graduate students built crash models to examine correlations among various weather conditions and crash attributes in Rutherford and Sevier counties. The Department will use the work done by the Yale team as a basis for further development of the predictive analytics program.

Report Start	Report End	Provided By
06-01-2017	05-31-2018	Patrick Dolan

Activity: Since 2013, the Department has successfully deployed three predictive models: The Fatal and Serious Injury Crash Model, the Impaired Driving Model, and the Commercial Motor Vehicle Enforcement Model. These GIS-based tools are available to authorized stakeholders including sheriff's offices and THP. We are continuing to rebuild the Fatal and Serious Injury Crash Model. This rebuild will make the model appropriate for use at the city level, and the Department has made the predictive analytics tool available to our external law enforcement partners.

We continue to receive state and national recognition for the program across numerous media outlets. We also periodically provide predictive analytics training presentations to other state and federal agencies. In 2017, THP participated in The Discovery project, a joint initiative between IBM and the Yale School of Management. Using TDOSHS data, Yale graduate students built crash models to examine correlations among various weather conditions and crash attributes in Rutherford and Sevier counties. The Department will use the work done by the Yale team as a basis for further development of the predictive analytics program.

The TDOSHS Statistics Office is working with TDOT to develop predictive models for staging incident management trucks in urban areas.

Report Start	Report End	Provided By
06-01-2018	05-31-2019	Patrick Dolan

Activity: Since 2013, the Department has successfully deployed three predictive models: The Crash Model, the Impaired Driving Model, and the Commercial Motor Vehicle Enforcement Model. These GIS-based tools are available to authorized stakeholders including sheriff's offices and THP. The Department rebuilt the old Fatal and Serious Injury Crash Model to include forecasts for all crash types. This rebuild made the model appropriate for use at the city level, and the Department has made the predictive analytics tool available to our external law enforcement partners.

The Department retrained all models during the second half of 2018. Two additional models were built for the target PM working group, one that forecasts fatalities monthly out to three years and one that forecasts serious injuries.

The Department partnered with Volpe to build a crash model that incorporates crowd sourced traffic data (Waze) and intends to use their work to deploy this model in Tennessee.

Report Start	Report End	Provided By
06-01-2019	05-31-2020	Patrick Dolan

Activity: Since 2013, the Department has successfully deployed three predictive models: The Crash Model, the Impaired Driving Model, and the Commercial Motor Vehicle Enforcement Model. These GIS-based tools are available to authorized stakeholders including sheriff’s offices and THP. The Department rebuilt the old Fatal and Serious Injury Crash Model to include forecasts for all crash types. This rebuild made the model appropriate for use at the city level, and the Department has made the predictive analytics tool available to our external law enforcement partners.

The Department retrained the DUI model during the second half of 2019. Three additional models have been built for the target PM working group, one that forecasts fatalities monthly out to three years, one that forecasts serious injuries, and one that forecasts non-motorist fatalities and serious injuries. Deployment of this dashboard is scheduled for September 2020.

The Department partnered with Volpe to build a crash model that incorporates crowd sourced traffic data (Waze) and intends to use their work to deploy this model in Tennessee. The Department applied for a USDOT Safety Data Initiative (SDI) Phase 2 grant to further develop and deploy this model. Initial efforts, prior to award announcements, include the development of automated push notifications to alert user of elevated crash risk in their area.

Schedule

October 1, 2020 through September 30, 2019

Performance Measures

TN-PM630 – Predictive Model Building

Tennessee will improve the Accessibility of the Crash system as measured in terms of an Increase of:

Refinement and/or retraining of existing SPSS Predictive Models, as needed.

The state will show measurable progress using the following method:

Retraining of CRASH, DUI, and Commercial Motor Vehicle models – Each of these models will be retrained, unless a determination is made that retraining is not necessary. Retraining will include incorporating more recent datasets, evaluating the use of additional datasets, and redeveloping each model if determined to be necessary. Additionally, the potential benefit of having District-specific models will be evaluated.

Refinement of CRASH, DUI, and Commercial Motor Vehicle models – Additional datasets of potential value to model building will be identified and evaluated for accessibility and completeness for model use. Datasets will be incorporated into model retraining as appropriate.

Measurement Date	Measure: Models Evaluated/Retrained	Notes
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06/25/2015	1/1	The crash model was retrained with more current data.
04/01/2016	2/0	Crash and DUI models were evaluated, and both are to be retrained in 2016
06/01/2018	3/3	The Crash, DUI, and CMV retraining was completed in December 2018.
6/01/2020	1/2	DUI model was evaluated and retrained. Crash model retraining is planned for Summer 2020

6.7 TN P71 – eCitation

Contact

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Lead Agency

Tennessee Highway Patrol, Administrative Office of the Courts

Partner Agencies

Tennessee Department of Safety & Homeland Security

Priority

High

Status

Active

Project Description

This project involves development and implementation of a comprehensive statewide electronic citation records management system to replace issuance of paper-based citations for traffic violations by THP and local law enforcement agencies statewide. The goal is to eliminate paper where possible in the citation issuance processes for both law enforcement and the courts

Project Purpose

Increase the use of electronic traffic citation collection through a coordinated multiagency program and promote data-driven highway safety decision-making in Tennessee State, local organizations and other data users.

Core System and Performance Area

	Performance Area					
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Driver License / History	✓	✓	✓	✓	✓	✓

Citation / Adjudication	✓	✓	✓	✓	✓	✓
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Activity Report

Report Start	Report End	Provided By
06/30/2015	06/30/2016	Chris Osbourn

Activity: The Tennessee Highway Patrol is currently transitioning Troopers to electronic citation reporting. In June 2014, Troopers in 3 counties began issuing eCitations. The transition to eCitation requires the cooperation of the courts in each county to facilitate acceptance of electronic citations in the local jurisdiction. The courts must transition to accepting citations electronically into their local RMS and transmit court dispositions electronically back to the Department of Safety & Homeland Security for posting to a driver's record. By the end of FFY 2016, the Department plans to have deployment of eCitation in over 70 counties, approximately 74% of statewide counties. As of June 2016, THP Troopers in 29 counties or 30.5% of all counties are issuing citations electronically. During FFY 2016 this represents 5.1% of all citations were issued electronically.

Strategies:

1. Implement the TITAN eCitation software to THP Statewide and have all State Troopers issuing eCitations by December 31, 2017.
2. Provide training all THP Troopers in each county on issuance of eCitations.
3. Continue to develop and foster partnerships with court clerks in each respective county working together jointly on transition of THP to eCitation issuance.
4. Provide technical and operational support to all users of the TITAN eCitation software.
5. Offer TITAN eCitation software, training, and technical support to local law enforcement agencies following a successful adoption by THP.

Report Start	Report End	Provided By
07/01/2016	05/31/2017	Chris Osbourn

Activity: THP has implemented eCitation in over 89 counties and intends to be fully deployed by the end of CY 2017. Great progress has been made in our rollout over the past year. New in-car printers and bar code scanners have been deployed to specifically streamline the process for issuing eCitations.

Problems: The signature requirement on the eCitation is a challenge for local law enforcement to adopt eCitation because it requires additional hardware to capture the image of the signature. Legislation eliminating the signature requirement for a traffic citation would help facilitate adoption,

but will require widespread support among law enforcement, court clerks, and judges. In addition, Tennessee does not have a centralized court system, so in some counties, we are having to interface separately with different court systems and system vendors.

Plans: We intend to proceed with deployment anticipating full deployment in all 95 counties by the end of CY 2017. We will continue to educate local government leadership on allowable fees which can be applied to help fund equipment and integration costs at the local level. We will also continue to explore ways to make the process more efficient by supporting the elimination of the handwritten signature requirement, as other states in the region have done, as well as explore the possibility of an eWarrant software application in counties where it would be possible to do so.

Report Start	Report End	Provided By
06/01/2017	05/31/2018	Chris Osbourn

Activity: eCitation is now in 92 counties, plus 3 local sheriff's departments and full deployment is anticipated by end of calendar year 2018. All of THP have now been outfitted with new printers and barcode scanners.

Problems: The signature requirement on the eCitation is a challenge for local law enforcement to adopt eCitation because it requires additional hardware to capture the image of the signature. Legislation eliminating the signature requirement for a traffic citation would help facilitate adoption, but will require widespread support among law enforcement, court clerks, and judges. In addition, Tennessee does not have a centralized court system, so in some counties, we are having to interface separately with different court systems and system vendors.

Plans: We intend to proceed with deployment anticipating full deployment in all 95 counties by the end of CY 2018. We will continue to educate local government leadership on allowable fees which can be applied to help fund equipment and integration costs at the local level. We will also continue to explore ways to make the process more efficient by supporting the elimination of the handwritten signature requirement, as other states in the region have done.

Report Start	Report End	Provided By
06/01/2018	05/31/2019	Chris Osbourn

Activity: eCitation is now in 93 counties, plus 3 local sheriff's departments and full deployment is anticipated by end of calendar year 2019. All of THP have now been outfitted with new printers and barcode scanners.

Problems: The signature requirement on the eCitation is a challenge for local law enforcement to adopt eCitation because it requires additional hardware to capture the image of the signature. Legislation eliminating the signature requirement for a traffic citation would help facilitate adoption, but will require widespread support among law enforcement, court clerks, and judges. In addition, Tennessee does not have a centralized court system, so in some counties, we are having to interface separately with different court systems and system vendors.

Plans: We intend to proceed with deployment anticipating full deployment in all 95 counties by the end of CY 2019. We will continue to educate local government leadership on allowable fees

which can be applied to help fund equipment and integration costs at the local level. We will also continue to explore ways to make the process more efficient by supporting the elimination of the handwritten signature requirement, as other states in the region have done.

Report Start	Report End	Provided By
06/01/2019	05/31/2020	Patrick Dolan

Activity: eCitation is now in 93 counties, plus 3 local sheriff's departments but full deployment remains difficult. All of THP have now been outfitted with new printers and barcode scanners.

Problems: The signature requirement on the eCitation is a challenge for local law enforcement to adopt eCitation because it requires additional hardware to capture the image of the signature. Legislation eliminating the signature requirement for a traffic citation would help facilitate adoption, but will require widespread support among law enforcement, court clerks, and judges. In addition, Tennessee does not have a centralized court system, so in some counties, we are having to interface separately with different court systems and system vendors.

Plans: We continue to press for full deployment, but it is not clear when we may be able to achieve it in all 95 counties. We hope for full deployment by the end of CY2020. We will continue to educate local government leadership on allowable fees which can be applied to help fund equipment and integration costs at the local level. We will also continue to explore ways to make the process more efficient by supporting the elimination of the handwritten signature requirement, as other states in the region have done.

Schedule

October 1, 2020 through September 30, 2021

Performance Measures

See *Section 5.1.1 Citation Timeliness, Completeness, Uniformity – Counties Deployed* for performance measure.

See *Section 5.1.2 Citation Timeliness, Completeness, Uniformity – Paper vs Electronic* for performance measure.

6.10 TN P72 – eCDR – TITAN Electronic Court Disposition Reporting System

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Lead Agency

Tennessee Department of Safety & Homeland Security, Administrative Office of the Courts

Partner Agencies

Tennessee Highway Patrol, Tennessee Highway Safety Office, Local Law Enforcement Agencies, Court Clerks Statewide

Priority

High

Status

On Hold

Project Description

This project involves development and implementation of a comprehensive statewide electronic court disposition reporting system for court clerks to electronically transmit dispositions to the Dept. of Safety and Homeland Security for transfer to the DL system and posting to a driver's record. This system replaces the existing electronic method for transmitting dispositions, provides a web-based interface for manual entry of dispositions, and is intended to replace all reporting of dispositions by paper or mail. The goal is to eliminate paper where possible for the courts and TDOSHS and improve the timeliness of CDL convictions and improve processes for law enforcement, the courts, and TDOSHS.

Project Purpose

Implement the new electronic Court Disposition Records (eCDR) System into TITAN. This will allow any disposition required to be posted to a driving record, including those involving a CDL offense, to be received from the courts and transmitted electronically to TDOSHS for transfer and posting to a driver's record in the DL A-LIST system. It is the Department's Goal to improve the timeliness of all disposition reporting, particularly of commercial vehicle driver convictions.

Core System and Performance Area

	Performance Area					
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Driver License / History	✓	✓	✓	✓	✓	✓
Citation / Adjudication	✓	✓	✓	✓	✓	✓

Activity Report

Report Start **Report End** **Provided By**
07/01/2015 06/30/2016 Chris Osbourn

Activity: The State's goal is to have approximately 50 court clerks utilizing the eCDR system in TITAN and to receive 25% of dispositions electronically by the end of FFY 2016. Ultimately, the state intends to receive all dispositions via submission of electronic file from the court clerks. Clerks, however, will be able to utilize a data entry form via the TITAN online portal where the disposition data can be manually entered into the TITAN eCDR system. This would also help reduce paper submissions and would be considered an electronic submission for our purposes.

Currently, project implementation has been delayed due to a need for additional enhancements resulting from the implementation of the new Driver License ALIST system. We anticipate completing the additional development in FFY 2017 and beginning the rollout to court clerks. Therefore, our goal of 50 court clerks and 25% of dispositions electronically is now for FFY 2017. As of now, no court clerks are using the system and 0% of dispositions are received electronically using the new eCDR system.

Strategies:

1. Implement the new eCDR system during the next FFY and begin facilitation of transitioning court clerks from the old system to the new TITAN reporting system.
 2. Identify and partner with court clerks still submitting paper dispositions to the department and help facilitate their adoption of an electronic reporting process for their dispositions.
 3. Provide training and instruction to court clerks regarding the transition to the new system and how errors are to be handled.
1. Continue to strengthen and build relationships with court clerks and judges to help facilitate a healthy transition to eCitation and electronic reporting of court dispositions in the State of Tennessee.

Report Start **Report End** **Provided By**

07/01/2016 05/31/2017 Chris Osbourn

Activity: This project has been put on hold pending other departmental priorities. Grant funding has been identified for completion of the system and development will proceed in CY 2018, with a new goal of implementation in late 2018.

Problems: Competing departmental priorities and lack of resources has contributed to delays in implementing this new system.

Plans: With funding now identified, we will proceed with completion of development and implementation of the new eCDR system in CY 2018.

Report Start	Report End	Provided By
06/01/2017	05/31/2018	Chris Osbourn

Activity: This project is still on hold. Project team held design meetings to prepare for project initiation.

Problems: Competing departmental priorities and lack of resources has contributed to delays in implementing this new system.

Plans: With funding now identified, we will proceed with completion of development and implementation of the new eCDR system in calendar year 2018 / early 2019.

Report Start	Report End	Provided By
06/01/2018	05/31/2019	Chris Osbourn

Activity: The development of the system is complete, but deployment is still on hold. There is ongoing discussion to try to get the system deployed.

Problems: Competing departmental priorities and lack of resources has contributed to delays in implementing this new system.

Plans: System development is complete and planning for deployment is underway.

Report Start	Report End	Provided By
06/01/2019	05/31/2020	Patrick Dolan

Activity: The development of the system is complete, but deployment has been on hold since 2018. There is ongoing discussion to try to get the system deployed.

Problems: Competing departmental priorities and lack of resources has contributed to delays in implementing this new system.

Plans: System development is complete and planning for deployment is underway.

Schedule

October 1, 2020 through September 30, 2021

Performance Measures

TN-PM721 – Number of court clerks utilizing the eCDR system in TITAN

Baseline: The eCDR component of TITAN is in place but has not been activated. As of FFY 2020, no (0) court clerks were utilizing the eCDR system.

TN-PM722 – Percentage of dispositions received electronically for posting on a driving record

Baseline: The eCDR component of TITAN is in place but has not been activated. As of FFY 2020, 0% of dispositions were being received electronically.

6.11 TN P73 – General Sessions Data Repository

Contact

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Lead Agency

Tennessee Administrative Office of the Courts

Partner Agencies

Court Clerks Statewide

Priority

High

Status

Active

Project Description

Introduction: The Tennessee Administrative Office of the Courts (AOC) is responsible for providing information about the work of the judicial branch to the state legislature, the executive branch, and the public. It has been tasked by the legislature to develop a system for reporting caseload and workload data for the 124 General Sessions courts. The AOC is in the process of creating a system for collecting, analyzing, and reporting case data from the General Sessions courts, with the capacity to expand it to cover all the courts of the state in the future.

Goals and Objectives: The objectives of the data repository are to: 1) publish information electronically about the work of the courts to support resource allocation and policy determination; 2) measure the efficiency and effectiveness of court business processes; and 3) provide indicators of the success of the courts in meeting their objectives. The goal of the initiative is to collect and report General Sessions Court caseload, case flow, workload, and other key information. Courts will report specific information about each case, and the AOC will consolidate, manage, and analyze this data in a centralized repository. This approach has been selected because it will maximize the ability of the repository to answer the questions that will be posed by stakeholders.

The objectives of the repository are to:

- Collect and store complete, accurate, and timely information about General Sessions’ court cases.
- Support policy development and resource allocation decisions with comprehensive information about General Sessions Court activities and trends.
- Provide authorized stakeholders with quick and easy answers to routine questions about the work of the General Sessions Court through a self-help portal.

Scope: In general, information will be pushed from case management systems used in the courts and placed in a standard XML format. This data will be pushed monthly in the beginning with plans to move to bi-weekly in the future. Any new information for a case will overwrite previous submissions. An XML schema will perform basic validation, and the document will then be encrypted and transmitted to the acquisition server in the data repository. The XML document will undergo further validation after being placed in the staging area, and then will be loaded into the repository, where reports and queries will provide information to stakeholders about General Sessions cases throughout the state. A web-based portal will support this basic access, and AOC staff will develop custom reports for more complex requests.

Core System and Performance Area

	Performance Area					
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Citation / Adjudication	✓	✓	✓	✓	✓	✓

Activity Report

Report Start **Report End** **Provided By**
 06/01/2017 05/31/2018 Amanda Hughes

Activity: The AOC has partnered with STS (Strategic Technology Solutions) to construct the data warehouse where all the data will be stored. The AOC has internally begun developing a front-end portal for end users to login in and view reports. Currently the data warehouse holds data for 86 courts and the AOC is working with the vendors of the other counties and municipal courts with general session’s jurisdiction to retrieve their data. The development team at the AOC is developing the front-end portal in iterations and has completed seven iterations of development. The repository consists of many features such as admin functionality, registration for users, my profile changes for users and admins, help and support, and reporting. All features listed have been completed and the feature currently in progress is reporting. The AOC has completed the case disposition list summary report and working now on the fee report. The goal for completion of the repository is late fall of 2018. The AOC will go live with the repository and will have a full fiscal year worth of data to start with (Fiscal Year 2017-2018).

6.12 TN P74 – A-List eCDR Interface

Contact

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Lead Agency

Tennessee Department of Safety

Priority

High

Status

On Hold

Project Description

This project adds two A-List web services that interface with eCDR to allow updating of dispositions and withdrawals.

Core System and Performance Area

	Performance Area					
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Driver License / History	✓	✓	✓	✓	✓	✓

Activity Report

Report Start	Report End	Provided By
06/01/2017	05/31/2018	Michael Hogan

Activity: Project is ongoing and consists of two web services where courts can interface with the eCDR to update dispositions and withdrawals. Estimated completion date of October 19, 2018.

Problems: None.

Report Start	Report End	Provided By
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06/01/2019 05/31/2020 Patrick Dolan

Activity: The development of the system is complete, but deployment has been on hold since 2018. There is ongoing discussion to try to get the system deployed.

Problems: Competing departmental priorities and lack of resources has contributed to delays in implementing this new system.

Plans: System development is complete and planning for deployment is underway.

6.13 TN P75 – Vehicle Title and Registration System (VTRS)

Contact

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Lead Agency

Tennessee Department of Revenue

Priority

High

Status

Active

Project Description

The new Vehicle Title and Registration System (VTRS) provides a host of improvements to the present processing system.

Some of the changes to the T&R system provided by VTRS are:

1. All 95 county offices are now running the same version of the software as the State. (Completed Feb 2016)
2. VIN decoding by third party software is now performed at entry point. (Completed Feb 2016)
3. Temporary Drive Out tags issued by automotive Dealers (DDOT) may now be purchased on-demand. DDOT issued tags have full registration information available to Law Enforcement the day after issuance of the tag. (Complete July 2017)
4. Financial responsibility laws are now supported by a real time inquiry from law enforcement. The Department also retrieves information from insurance providers to identify Tennessee drivers that may not be in compliance. (Completed 1/2/2017)
5. Title and Registration data is updated real time, eliminating the batching process needed with the legacy system.

Title and Registration data are now updated real time. The batching process has been eliminated.

Core System and Performance Area

	Performance Area					
Core System	Accuracy	Completeness	Integration	Timeliness	Uniformity	Accessibility
Vehicle (VTRS)	✓	✓	✓	✓	✓	✓

7. Traffic Records Data Standards Compliance

7.1 Model Inventory of Roadway Elements (MIRE) Compliance

In this section, Tennessee has incorporated specific quantifiable and measurable anticipated improvements for the collection of MIRE fundamental data elements. Among these is the upgrading of the LRS and data storage capabilities. TDOT is currently in negotiations for a new data collection contract.

7.1.1 MIRE Data Collection Status

Which MIRE fundamental data elements are currently being collected and which MIRE fundamental data elements are not being collected? On which functional classes of roads are/are not they being collected?

We have collected all but three of the FDE's. One data element that we have partial collection of (#126 Intersection/Junction Geometry). The other two are #139 Unique Approach Identifier and #182 Interchange Type. We collect these elements for all classifications of roads.

Which business office(s) in the State DOT collect, receive, and maintain the MIRE fundamental data elements? How are the data stored and managed?

The collection and management of the MIRE FDE's occurs within the Long-Range Planning Division. The data is stored in the Tennessee Roadway Information Management System database. This is an Oracle database and uses custom software to manage the data.

Who can access the MIRE fundamental data elements for safety analyses, and what steps are necessary to access the data? Are systems planned or already implemented to facilitate access to the data (e.g. online portals)?

The data is accessible to individuals who have been granted login permission through the Long Range Planning Division. This would include TDOT personnel, Transportation professionals, industries, consultants, and universities. The E-TRIMS application is a web-based portal where users can access, view, and query the data to create reports and maps.

Which agency/office/individual/committee(s) have authority and responsible for determining the improvements needed to achieve compliance with the MIRE fundamental data elements requirement?

The Long Range Planning Division has the authority to add data elements to be collected. Consultation with other partners, both internal to TDOT, and external sources have utilized in the past to ensure the proper elements are being collected.

7.1.2 Data Collection Methodology

For the MIRE fundamental data elements that are already being collected:

- *What methods are being used to collect the MIRE fundamental data elements?*

Most Fundamental Data Elements are created using field data collection equipment. Software is then used to extract and/or input the data into the Management System.

- *How often do they collect the data?*

There are different schedules depending on the type of data. Roadway inventory items are continually being updated based on construction project status reports or notification from other sources of updates. Crash data is updated throughout the year based on imports of reports from the Dept. of Safety and Homeland Security. Maintenance Features are collected on a 2-year cycle based on the TDOT Regions.

- *What Quality Control/Quality Assurance processes are performed before the data is entered into the database.*

Equipment Calibration occurs prior to any field data collection. There are QA/QC routines that are performed during or after input into the database verifying attribute codes, log mile values, etc. Staff members are assigned tasks to perform validation queries, etc. on the database and the Linear Reference System.

7.1.3 Coordination with Other Agencies

For MIRE fundamental data elements that are NOT currently being collected:

- *Who owns the roads where the elements are not being collected (e.g., State, local government agencies, Tribal Governments, Federal Land Management Agencies, etc.)?*

The ownership of the roads in the database covers the entities of Federal, State, and local governments.

- *Do the agencies that own those roads collect any of the MIRE fundamental data elements?*

They may collect a subset of the MIRE fundamental data elements and have consulted with them, but historically the Long Range Planning Division has collected the roadway inventory for all roads.

- *What mechanisms are needed to share data among those agencies that collect, store, maintain, and use the MIRE fundamental data elements?*

For data collection there could be a formal process developed for notifications of updated or new data available from local governments. The Long Range Planning Division is responsible for storage and maintenance of the data. The data is available to all users of the E-TRIMS web-based system.

7.1.4 Prioritization of MIRE Fundamental Data Elements Collection

For additional data that needs to be collected to meet the MIRE fundamental data element requirement:

- *What data elements will be collected in the short (1-3 years), medium (4-6 years), and long (7-9 years) term?*

We currently collect all but 3 of the fundamental data elements (#126, #139, #182). We anticipate the ability to collect these remaining elements in the medium term (3-5 years).

- *What collection technologies and/or methodologies are anticipated to be used?*

Existing field data collection techniques will continue while we begin to study alternative and modern data collection methodologies such as LiDAR, Imagery Change Detection software, and Mobile GPS to transition from the existing field data collection methodologies. A transition will take place as we develop and deploy new strategies for the data collection.

- *Who is responsible for collecting the data?*

The Long Range Planning Division will continue to be responsible for collecting roadway inventory and the data storage.

- *How will it be made available to the State DOT?*

It is available using the E-TRIMS application.

- *What will be the update cycle for the collection of the data?*

The update cycle will be an ongoing process throughout each year. Some other offices that supply data to the Information Management System coordinate their data collection by TDOT Regions each year. LRP could also look to develop a similar schedule.

7.1.5 Costs and Resources for MIRE FDE Data Collection

What are the estimated costs, staffing, and other resource requirements to collect and maintain the MIRE fundamental data elements?

The previous data collection contract between TDOT and the data collection contractor has now expired. This contract was for the collection of Photolog, Ramps, LiDAR, Pavement and Maintenance features at a total annual cost of \$3,768,008.40 including resources for a five-year period.

TDOT has executed a Pavement Data Collection Contract with a maximum liability of \$4,062,711.55 over the next five years. TDOT is actively working on a new maintenance feature and photolog data collection contract which will be executed at the earliest. We expect that costs will be increased, and we anticipate collecting all required data at the highest possible standards. TDOT is also working with IT professionals and making preparations to implement HPMS sample data collection in-house which will seek to reduce associated costs.

Who will incur those costs?

The use of SPR dollars for Planning Activities means that the money will be from an 80/20 split of federal dollars and state dollars

7.2 Model Minimum Uniform Crash Criteria (MMUCC) Compliance

Tennessee's crash repository is currently designed according to MMUCC V3 guidelines. Tennessee completed a MMUCC V5 compliance review and will use the review results to guide the planned MMUCC V5 TITAN Upgrade.

Tennessee adopted the MMUCC Version 4 definition for the "Suspected Serious Injury (A)" in July 2018, and is in compliance with FHWA requirements, including:

- Collecting and accurately aggregating MMUCC v4 attribute "Suspected Serious Injury (A)."
- The State's crash database, data dictionary, and crash report user manual employs the verbatim terminology and definitions for this attribute from the MMUCC v4 standard.
- The State's crash form employs the verbatim MMUCC v4 "Suspected Serious Injury (A)" attribute.
- Ensure the seven serious injury types covered by the attribute are not included in the other attributes listed in the State's injury status data elements.

7.3 National Emergency medical Services Information System (NEMSIS) Compliance

The last EMS database review was performed by the State in 2020. The Tennessee EMS run reporting system, TNEMSIS, is currently NEMSIS 3.4.0 compliant.

7.4 National Trauma Data Standard (NTDS) Compliance

The Tennessee trauma registry is maintained in the DOH and contains all the National Trauma Data Standard (NTDS) elements in addition to state required data fields. The registry contains Injury Severity Scores (ISS) for each record.

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Tenn. Code Ann. § 4-3-1016 (2016)

4-3-1016. Restrictions on carry forwards and transfers of funds to the state general fund

(a) Notwithstanding any law to the contrary, subject to the specific provisions of an appropriation act, the commissioner of finance and administration is authorized to deny carry forwards for, and to transfer funds from, the funds, reserve accounts or programs identified in this section to the state general fund for the purpose of meeting the requirements of funding the operations of state government for the fiscal year ending June 30, 2006, and subsequent fiscal years. The authorization provided for in this subsection (a) shall not apply to allow the transfer of any fund balances that are mandated by federal law to be retained in such fund. This authority shall only apply to transfers and carry forwards necessary to fund the expenditures for the state for the fiscal year ending June 30, 2006, and subsequent fiscal years.

(b) No funds shall be transferred unless specifically appropriated in an appropriations act and such funds shall only be expended in accordance with such act.

(c) Notwithstanding any provision of this section to the contrary, no transfers are authorized from department of transportation funds, reserve accounts and programs in the highway fund or other funds created or referenced in titles 54, 55, 57, 65 and 67, except as authorized by § 47-18-1311.

(d) In the fiscal years ending June 30, 2008, June 30, 2009, June 30, 2010, June 30, 2011 and June 30, 2014, transfers are authorized from the following funds, reserve accounts and programs:

(1) Department of finance and administration, for the department of revenue, computerized titling and registration system accumulated fees, created or referenced in title 55, chapter 4, part 1;

(2) Department of finance and administration, domestic violence community education fund, created or referenced in title 36, chapter 3, part 6;

(3) Department of finance and administration, electronic fingerprint imaging systems fund, created or referenced in title 67, chapter 4, part 6;

(4) Department of finance and administration, family violence shelter reserve, created or referenced in title 36, chapter 6, part 4;

(5) Department of finance and administration, drug courts reserve, created or referenced in title 16, chapter 22;

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(6) Department of finance and administration, state health planning reserve, created or referenced in title 68, chapter 11, part 16;

(7) Department of finance and administration, sexual assault program, created or referenced in title 40, chapter 24;

(8) Department of finance and administration, domestic assault defendant fines program, created or referenced in title 39, chapter 13, part 1;

(9) Department of correction, community correction program grants, created or referenced in title 40, chapter 36, part 3;

(10) Department of correction, supervision and rehabilitation accumulated fees, created or referenced in title 40, chapter 28, part 2;

(11) Department of correction, GPS offender tracking fees, created or referenced in title 40, chapter 28, part 2;

(12) Department of agriculture, agricultural resources conservation fund, created or referenced in title 67, chapter 4, part 4;

(13) Department of agriculture, agricultural regulatory fund, created or referenced in title 43, chapter 1, part 7;

(14) Department of environment and conservation, Tennessee board of water quality, oil and gas reclamation fund, created or referenced in title 60, chapter 1, part 4;

(15) Department of environment and conservation, solid waste management fund, created or referenced in title 68, chapter 211, part 8;

(16) Department of environment and conservation, used oil collection fund, created or referenced in title 68, chapter 211, part 10;

(17) Department of environment and conservation, hazardous waste remedial action fund, created or referenced in title 68, chapter 212, part 2;

(18) Department of environment and conservation, drycleaner environmental response fund, created or referenced in title 68, chapter 217;

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- (19) Department of environment and conservation, environmental protection fund, created or referenced in title 68, chapter 203;
- (20) Department of environment and conservation, heritage conservation trust fund, created or referenced in title 11, chapter 7;
- (21) Department of environment and conservation, lead based paint abatement fund, created or referenced in title 68, chapter 131, part 4;
- (22) Department of environment and conservation, voluntary cleanup oversight and assistance fund, created or referenced in title 68, chapter 212, part 2;
- (23) Department of environment and conservation, abandoned land program, created or referenced in title 59, chapter 8, part 2;
- (24) Department of environment and conservation, underground storage tank fund, created or referenced in title 68, chapter 215, part 1;
- (25) Department of environment and conservation, surface mine reclamation fund, created or referenced in title 59, chapter 8, part 2;
- (26) Department of environment and conservation, local parks land acquisition fund, created or referenced in title 67, chapter 4, part 4;
- (27) Department of environment and conservation, state lands acquisition fund, created or referenced in title 67, chapter 4, part 4;
- (28) Tennessee wildlife resources agency, wetland acquisitions fund, created or referenced in title 67, chapter 4, part 4;
- (29) Department of correction, sex offender treatment fund, created or referenced in title 39, chapter 13, part 7;
- (30) Department of correction, work release supervision and rehabilitation accumulated fees, created or referenced in title 40, chapter 28, part 2;
- (31) Department of economic and community development, FastTrack fund, created or referenced in chapter 3, part 7 of this title;

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- (32) Department of economic and community development, film and television incentive grants fund, created or referenced in chapter 3, part 49 of this title;
- (33) Department of economic and community development, job skills fund, created or referenced in title 50, chapter 7, part 4;
- (34) Education trust fund, created or referenced in title 49, chapter 3, part 3;
- (35) Department of education, driver education fund, created or referenced in title 67, chapter 4, part 6;
- (36) Department of education, safe schools program, created or referenced in title 49, chapter 6, part 43;
- (37) Department of education, special schools, created or referenced in title 49, chapter 50, part 10;
- (38) Department of education, Alvin C. York Institute operational reserve, created or referenced in title 49, chapter 50, part 10;
- (39) Department of education, Tennessee school for the blind operational reserve, created or referenced in title 49, chapter 50, part 10;
- (40) Department of education, Tennessee school for the deaf operational reserve, created or referenced in title 49, chapter 50, part 10;
- (41) Department of education, West Tennessee school for the deaf operational reserve, created or referenced in title 49, chapter 50, part 10;
- (42) Department of education, boys and girls clubs reserve, created or referenced in title 36, chapter 6, part 4;
- (43) Department of financial institutions, bank fees, created or referenced in title 45, chapter 1, part 1, and any other law and such funds in a deferred revenue account;
- (44) Department of commerce and insurance fees, created or referenced in Acts 2001, ch. 333, and title 56, chapter 2, part 5; title 56, chapter 4, part 1; title 56, chapter 6, part 1; title 56, chapter 14, part 1; title 56, chapter 32; title 56, chapter 35, part 1; and title 55, chapter 18;

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(45) Department of commerce and insurance, emergency communications funds, created or referenced in title 7, chapter 86, part 1;

(46) Department of commerce and insurance, state board of accountancy fund, created or referenced in title 62, chapter 1, part 1;

(47) Department of commerce and insurance, division of regulatory boards fund, created or referenced in title 56, chapter 1, part 3;

(48) Department of commerce and insurance, real estate education and recovery education fund, created or referenced in title 62, chapter 13, part 2;

(49) Department of commerce and insurance, real estate education and recovery claims fund, created or referenced in title 62, chapter 13, part 2;

(50) Department of commerce and insurance, auctioneer education and recovery account, created or referenced in title 62, chapter 19;

(51) Department of commerce and insurance, manufactured housing fund, created or referenced in title 68, chapter 126, part 4;

(52) Department of labor and workforce development, employment security special administrative fund, created or referenced in title 50, chapter 7, part 5;

(53) Department of labor and workforce development, Tennessee Occupational Safety and Health Act fund, created or referenced in title 50, chapter 6, part 4;

(54) Department of labor and workforce development, uninsured employers fund, created or referenced in title 50, chapter 6, part 8;

(55) Department of mental health and substance abuse services or the department of health, alcohol and drug addiction treatment fund, created or referenced in title 40, chapter 33, part 2;

(56) Department of health, health access incentive account, created or referenced in title 66, chapter 29, part 1;

(57) Department of health, child safety fund, created or referenced in title 55, chapter 9, part 6;

(58) Department of health, nursing home residents fund, created or referenced in title 68,

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chapter 11, part 8;

(59) Department of health, traumatic brain injury fund, created or referenced in title 68, chapter 55, part 4;

(60) Department of health, health-related boards fund, created or referenced in title 63, chapter 1, part 1;

(61) Department of revenue, C.I.D. anti-theft fund, created or referenced in title 55, chapter 3, part 2;

(62) Tennessee bureau of investigation, fingerprint criminal history database accumulated fees, created or referenced in title 39, chapter 17, part 13;

(63) Tennessee bureau of investigation, expunged criminal offender pretrial diversion database accumulated fees, created or referenced in title 38, chapter 6, part 1 and title 40, chapter 32;

(64) Tennessee bureau of investigation, intoxicant testing fund, created or referenced in title 55, chapter 10, part 4;

(65) Tennessee bureau of investigation, handgun permit reserve, created or referenced in title 39, chapter 17, part 13;

(66) Department of safety, driver education fund, created or referenced in title 67, chapter 4, part 6;

(67) Department of safety, motorcycle rider safety fund, created or referenced in title 55, chapter 51;

(68) Department of safety, handgun permit reserve, created or referenced in title 39, chapter 17, part 13;

(69) Department of children's services, child abuse prevention reserve, created or referenced in title 36, chapter 6, part 4;

(70) Court system Tennessee judicial information system fund, created or referenced in title 16, chapter 3, part 8;

(71) Court system divorcing parents mediation fund, created or referenced in title 36, chapter 6,

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part 4;

(72) Court system court automation hardware replacement revolving loan fund, created or referenced in title 16, chapter 3, part 10;

(73) Court system municipal court clerks training and education program, created or referenced in title 16, chapter 18, part 3;

(74) Secretary of state voting machines loan fund, created or referenced in title 2, chapter 9;

(75) Secretary of state, voting machine reserve fund, created or referenced in title 2, chapter 9;

(76) Secretary of state, Blue Book reserve, created or referenced in title 8, chapter 3, part 1;

(77) Ethics commission reserve, created or referenced in title 3, chapter 6, part 1;

(78) State treasurer, small and minority-owned business assistance program, created or referenced in title 65, chapter 5, part 1;

(79) Health services and development agency fund, created or referenced in title 68, chapter 11, part 16;

(80) Tennessee regulatory authority, deferred revenue account, created or referenced in title 65, chapter 1, part 1 and any other reserve fund maintained by the Tennessee regulatory authority;

(81) Tennessee regulatory authority, Tennessee relay services/telecommunications devices access program, created or referenced in title 65, chapter 21, part 1; and

(82) Tennessee advisory commission on intergovernmental relations, accumulated balances or carry-over funds, created or referenced in chapter 10 of this title.

(e) In the fiscal years ending June 30, 2009, June 30, 2010, and June 30, 2011, in addition to the transfers authorized in subsection (d), transfers are authorized from the following additional funds, reserve accounts and programs:

(1) Department of correction, confiscated cash fund, created or referenced in chapter 6, part 1 of this title;

(2) Department of economic and community development, biofuels manufacturers incentive

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fund, created or referenced in title 67, chapter 3, part 4;

(3) Department of health, diabetes prevention and health improvement account, created or referenced in former chapter 40, part 4 of this title [repealed]; and

(4) Department of environment and conservation, natural resources trust fund, created or referenced in title 11, chapter 14, part 3.

(f) In the fiscal years ending June 30, 2009, June 30, 2011 and June 30, 2014, transfers shall not be made from the following funds, reserve accounts or programs:

(1) Department of transportation funds, reserve accounts and programs in the highway fund or other funds created or referenced in titles 54, 55, 57, 65 and 67, except as otherwise provided by law;

(2) Department of commerce and insurance, state board of accountancy fund, created or referenced in title 62, chapter 1, part 1;

(3) Department of commerce and insurance, division of regulatory boards fund, created or referenced in title 56, chapter 1, part 3; and

(4) Department of health, health-related boards fund, created or referenced in title 63, chapter 1, part 1.

(g) Notwithstanding Acts 2001, ch. 333, § 9 and any other law to the contrary, transfers are authorized from the department of commerce and insurance fees increased by Acts 2001, ch. 333.

(h) Other law to the contrary notwithstanding, in the year ending June 30, 2009, reserves of the Tennessee regulatory authority, including the deferred revenue account created or referenced in title 65, chapter 1, part 1, the assistive telecommunication device distribution program reserve created or referenced in title 65, chapter 21, part 1, and any other reserve fund maintained by the authority are available to the authority for its operational costs; and such reserves may be transferred between operational accounts of the authority.

HISTORY: Acts 2004, ch. 512, § 1; 2005, ch. 500, § 10; 2008, ch. 1191, § 1; 2009, ch. 197, § 1; 2009, ch. 531, §§ 14, 15, 19; 2010, ch. 1100, § 8; 2011, ch. 509, § 1; 2012, ch. 575, § 1; 2012, ch. 727, § 2; 2014, ch. 917, §§ 5, 6, 8, 9.

Title 55 Motor and Other Vehicles
Chapter 51 Motorcycle Rider Education and Safety

Tenn. Code Ann. § 55-51-101 (2016)

55-51-101. Chapter definitions

As used in this chapter:

- (1) "Chief instructor" means a licensed motorcycle operator who meets the standards established by the department to qualify to train and oversee instructors for the motorcycle rider education program;
- (2) "Department" means the department of safety;
- (3) "Director" means the commissioner of safety;
- (4) "Motorcycle rider education program" means the motorcycle training and information disbursement plan created in § 55-51-102;
- (5) "Motorcycle rider safety fund" means the restricted receipts account created in § 55-51-104 to be applied toward the cost of administering the motorcycle rider education program;
- (6) "Program coordinator" means the person designated by the director to plan, organize, and administer the motorcycle rider education program as provided in § 55-51-102(b);
- (7) "Rider training course" means a motorcycle rider education curriculum and delivery system approved by the department as meeting standards designed to develop and instill the knowledge, attitudes, habits, and skills necessary for the safe operation of a motorcycle; and
- (8) "Training specialist" means the person designated by the director to fulfill the obligations stated in § 55-51-102(c).

Title 55 Motor and Other Vehicles
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Tenn. Code Ann. § 55-51-102 (2016)

55-51-102. Motorcycle rider education program

(a) The department shall establish standards for and shall administer the motorcycle rider education program. The program shall include, but is not limited to, rider training courses and instructor training. The department may expand the program to include public awareness, alcohol and drug effects, driver improvements for motorcyclists, licensing improvement, program promotion or other motorcycle safety programs.

(b) The director shall appoint a program coordinator who shall oversee and direct the program by setting program and funding guidelines, and conduct an annual evaluation.

(c) The director may also appoint one (1) or more training specialists who shall assist in establishing rider training courses throughout the state, support and implement program and funding guidelines and supervise instructors and other personnel as necessary. The training specialist may be a trained chief instructor.

(d) Rider training courses shall be open to all residents of the state who either hold a current valid driver license for any classification or who are eligible for a motorcycle learner's permit.

(e) An adequate number of rider training courses shall be provided to meet the reasonably anticipated needs of all persons in the state who are eligible and who desire to participate in the program. The department shall issue certificates of completion in the manner and form prescribed by the director to persons who satisfactorily complete the requirements of the course. Program delivery may be phased in over a reasonable period of time.

(f) The department may enter into contracts with either public or private institutions for technical assistance in conducting rider training courses, if the course is administered and taught by a trained motorcycle rider instructor as established in § 55-51-103. A private organization providing a rider training course may charge a tuition fee; provided, that a private organization receiving a subsidy grant to provide for the start-up costs incurred in establishing the rider training course may charge a tuition fee with a maximum tuition fee to be determined by the department.

(g) In accordance with the procedures established by the Uniform Administrative Procedures Act, compiled in title 4, chapter 5, the department shall adopt rules and regulations as are necessary to implement the motorcycle rider education program.

(h) The director shall regulate and administer the motorcycle rider education program established under this chapter, and any person or entity providing instruction as authorized in this chapter shall not be subject to the state's commercial driver training laws, as found in chapter 19 of this title or regulations issued pursuant to those laws.

Title 55 Motor and Other Vehicles
Chapter 51 Motorcycle Rider Education and Safety

Tenn. Code Ann. § 55-51-103 (2016)

55-51-103. Instructor requirements and training

(a) The department shall establish standards for an approved motorcycle rider education instructor preparation course. Successful completion of the course shall require the participant to demonstrate knowledge of the course material, knowledge of safe motorcycle operating practices, and the necessary aptitude for instructing students.

(b) The department shall establish minimum requirements for the qualification of a rider education instructor. The minimum requirements shall include, but not be limited to, the following:

- (1) The instructor must have a high school diploma or its equivalent;
- (2) The instructor must be at least eighteen (18) years of age and must hold a valid motorcycle operator's license or endorsement;
- (3) The instructor must have at least two (2) years of recent motorcycle riding experience;
- (4) The instructor's driver license must not have been suspended or revoked at any time during the preceding two (2) years;
- (5) The instructor must not have any convictions for driving under the influence of alcohol or drugs during the preceding five (5) years;
- (6) Instructors who are licensed in other states must furnish certified copies of their driving records to the department. An applicant shall not be eligible for instructor status until the applicant's driving record for the preceding five (5) years is furnished; and
- (7) The instructor must have an approved instructor certificate that may be a state or motorcycle safety foundation certificate, and the instructor must be registered as a currently active instructor.

Title 55 Motor and Other Vehicles
Chapter 51 Motorcycle Rider Education and Safety

Tenn. Code Ann. § 55-51-104 (2016)

55-51-104. Motorcycle rider safety fund

(a) The motorcycle rider safety fund is established in the state treasury and, subject to the general appropriations act, shall be available on a continual basis to the department which shall administer the moneys. Moneys from the fund made available to the department shall only be used for administration of the motorcycle rider education program and for expenses relating to the program including, but not limited to, instructor training, licensing improvement, alcohol and drug education, public awareness, a driver improvement program for motorcyclists, technical assistance, program promotion, and other motorcycle safety programs. Funds may also be used for reimbursement of organizations with course sites. The department shall establish standards for disbursements of funds.

(b) Two dollars (\$2.00) of the annual registration fee for each registered motorcycle shall be credited to the fund as established in subsection (a).

(c) One dollar (\$1.00) of the application fee for a motorcycle operator learner's permit shall be credited to the fund as established in subsection (a).

(d) One dollar (\$1.00) of the fee for each original motorcycle operator's license or endorsement and for each renewal shall be credited to the fund as established in subsection (a).

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Tenn. Code Ann. § 55-51-105 (2016)

55-51-105. Advisory committee

(a) The director shall by regulation establish a motorcycle rider education program advisory committee to assist in the development of the motorcycle rider education program. The committee shall also monitor the program upon its implementation and report to the director as necessary with recommendations including, but not limited to, the administration, application, and substance of the program. The committee shall consist of five (5) members, including a chair, appointed by the director. One (1) member selected shall be a resident of each grand division of the state, two (2) members shall be selected from the state at large, and not more than two (2) members shall be residents of the same grand division.

(b) Three (3) members shall be qualified motorcycle wholesalers, dealers, or retailers licensed in Tennessee. All shall be of good moral character and each shall have been actually engaged in the distribution or sale of motorcycles in this state for not less than three (3) consecutive years preceding the appointment, and each shall have the necessary qualifications for the applicable license under chapter 17 of this title, and be the holder of the license at all times while a member of the committee.

(c) Two (2) members shall be consumer members of the advisory committee, who shall be citizens of this state, who shall have a valid motorcycle operator's license, and who shall have no interest, direct or indirect, in the commercial manufacture or sale of motorcycles.

(d) The committee shall meet at the call of the director. Members shall serve without compensation for their services but may be reimbursed for their travel expenses while engaged in business of the committee. All reimbursement for travel expenses shall be in accordance with the comprehensive travel regulations as promulgated by the department of finance and administration and approved by the attorney general and reporter.

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Tenn. Code Ann. § 55-51-106 (2016)

55-51-106. Insurance discount

(a) The commissioner of commerce and insurance shall fix and establish premium charges for admitted insurers so as to provide a ten percent (10%) reduction in premium rates for motorcycle liability insurance to qualified licensed motorcycle operators who provide proof of successful completion of a state approved rider training course.

(b) The premium reduction shall remain in effect for the qualifying insured persons for a period of three (3) years from the date of successful completion of an approved course, except that the insurer may elect to apply the premium reduction beginning at the next renewal date of the policy and continuing for a period of three (3) years.

Tenn. Code Ann. § 55-51-107 (2016)

55-51-107. Licensing skills test examination

The director may exempt applicants for a reinstated or an original motorcycle operator license from the licensing skills and/or knowledge test if they present proof of successful completion of a rider training course that includes a similar test of skills and/or knowledge that is approved by the department and licensing officials. No licensing skills or knowledge examination required by this chapter shall be required for renewal of a motorcycle operator license.