STATE OF WISCONSIN
FEDERAL FISCAL YEAR 2020
HIGHWAY SAFETY PLAN

Tony Evers
Governor of Wisconsin

Craig Thompson
Governor's Representative for Highway Safety
Secretary, Wisconsin Department of Transportation

David Pabst
Highway Safety Coordinator

State of Wisconsin
Federal Fiscal Year 2020
Highway Safety Plan

Table of Contents

Mission Statement
Our mission is simple: zero fatalities on Wisconsin's roadways.

Our transportation system is essential to society's continuing prosperity and an inescapable component to everyday life in Wisconsin; as a society we should not accept casualties as a foregone consequence of that system. Wisconsin citizens and state policymakers work toward achieving zero fatalities and incapacitating injuries on our roadways. Our belief is that any death is one too many, and we work toward saving as many lives as possible using the resources available.

Executive Summary
The Bureau of Transportation Safety (BOTS) coordinates a statewide behavioral highway safety program using federal funds given back to the state through the National Highway Traffic Safety Administration (NHTSA), state funds, and other resources. Funds are primarily used to change system users' behaviors by enforcing traffic laws, increasing drivers' perception of the risk of being ticketed for non-compliance, increasing public awareness of the dangers of high-risk behavior, and informing system users of the best way to avoid or reduce the severity of a crash.

Through analysis and targeting, BOTS works to provide leadership, innovation, and program support in partnership with state, county, and community traffic safety leaders, professionals, and organizations.

Figure 1 uses Fatality Analysis Reporting System (FARS) fatality data (preliminary). The number of traffic fatalities has trended slightly upward over the last five years. 2018 saw a decrease from the prior year to 588 and rose above the 5-year (2013-2017) moving average of 567. There were 588 fatalities on Wisconsin roads in 2018 according to preliminary figures from the state's own crash data files down from 613 fatalities in 2017.

As figure 2 indicates, serious injury crashes had a spike to 3,492 in 2017. There were 3,192 serious injuries in 2018 according to preliminary figures from Wisconsin's state crash data files.

Wisconsin achieved the national goal of one fatality per 100 million Vehicle Miles Traveled (VMT) in 2009, two years ahead of the national target date. As figure 3 indicates, Wisconsin was slightly above the goal in 2017, but fatalities per 100 million Vehicle Miles Traveled (VMT) dropped to 0.89 in 2018.

The lead state agency for any grant type is the Wisconsin Department of Transportation. Match for maintenance of effort is achieved using the following table. See appendix 7 for additional information regarding maintenance of effort.

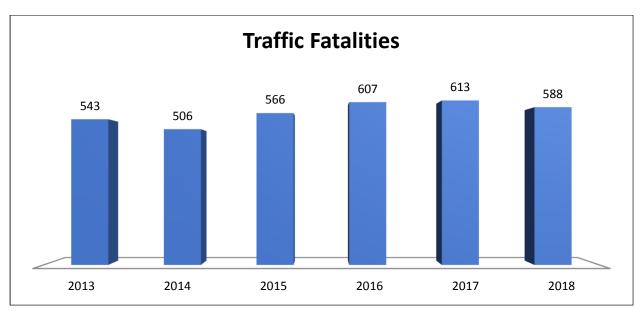| 405b	Division of State Patrol (DSP) traffic enforcement
405c	DSP Traffic and Criminal Software (TraCS) staff, a BOTS safety data analyst, DSP Mobile Architecture for Communications Handling (MACH) and TraCS support, and MACH MiFi hardware expenditures
405d	DSP traffic enforcement and safe-ride grant program alternative transportation funds

Figure 1: Traffic Fatalities (FARS)

Goal C1: To decrease traffic fatalities 2 percent each year from the 2014-2018 five-year rolling average to 564.5 by December 31, 2020.
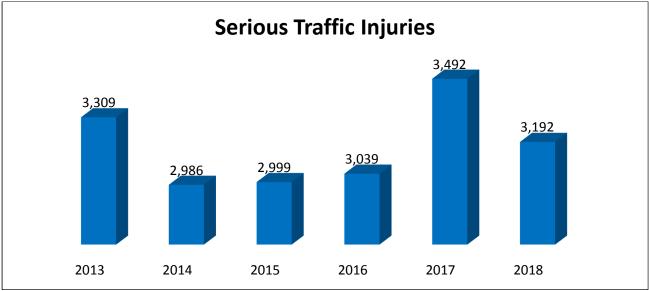

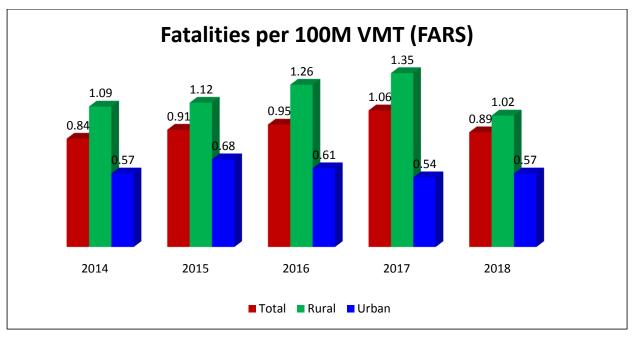Figure 2: Serious Traffic Injuries (State Crash Data)

Figure 3: Fatalities per 100M VMT (FARS)

Figure 4 provides the performance measures and goal statements developed by the Governors Highway Safety Association (GHSA) and NHTSA.

Measure	2014	2015	2016	2017	2018	2014-2018 Avg	2020 Target (2014-2018 Avg with 5% reduction, 2% for measures C1 and C3a)
C1. Traffic Fatalities (FARS)	506	566	607	613	588	**576.0**	**564.5**
C1. To decrease traffic fatalities 2 percent from the 2014-2018 calendar year rolling average of 576 to 564.5 by December 31, 2020.							
C2. Serious Traffic Injuries (State Crash Data Files)	2,986	2,999	3,039	3,286	3,492	**3,160.0**	**3,002.4**
C2. To decrease serious traffic injuries 5 percent from the 2014-2018 calendar year rolling average of 3,160 to 3002 by December 31, 2020.							
C3a. Fatalities/VMT (FARS)	0.84	0.91	0.95	1.06	0.89	0.934	0.911
C3a. To decrease total fatalities/VMT, by 2 percent from the 2014-2018 calendar year rolling average of 0.934 to 0.911 by December 31, 2020.							
C3b. Rural Fatalities/VMT (FARS)	1.09	1.12	1.26	1.35	1.02	1.170	1.110
C3b. To decrease rural fatalities/VMT, by 5 percent from the 2014-2018 calendar year rolling average of 1.170 to 1.110 by December 31, 2020.							
C3c. Urban Fatalities/VMT (FARS)	0.57	0.68	0.61	0.54	0.57	0.590	0.561
C3c. To decrease urban fatalities/VMT, by 5 percent from the 2014-2018 calendar year rolling average of 0.590 to 0.561 by December 31, 2020.							
C4. Unrestrained Passenger Vehicle Occupant Fatalities (FARS)	161	167	182	187	234	**186.2**	**177**

C4. To decrease unrestrained passenger vehicle occupant fatalities in all seating positions 5 percent from the 2014-2018 calendar year rolling average of 186.2 to 177 by December 31, 2020.

C5. Alcohol Impaired Driving Fatalities (FARS)	165	189	105	79	90	**125.6**	**119**

C5. To decrease alcohol impaired driving fatalities 5 percent from the 2014-2018 calendar year rolling average of 125.6 to 119 by December 31, 2020.

C6. Speeding Related Fatalities (FARS)	168	167	187	151	170	**168.6**	**160**

C6. To decrease speeding-related fatalities 5 percent from the 2014-2018 calendar year rolling average of 168.6 to 160 by December 31, 2020.

C7. Motorcyclist Fatalities	73	81	85	73	79	**78.2**	**74**

C7. To decrease motorcyclist fatalities 5 percent from the 2014-2018 calendar year rolling average of 78.2 to 74 by December 31, 2020.

C8. Un-helmeted Motorcyclist Fatalities (FARS)	51	65	72	43	66	**59.4**	**56**

C8. To decrease un-helmeted motorcyclist fatalities 5 percent from the 2014-2018 calendar year rolling average of 59.4 to 56 by December 31, 2020.

C9. Drivers Age 20 or Younger Involved in Fatal Crashes (FARS)	67	77	78	85	57	**72.8**	**69**

C9. To decrease drivers age 20 or younger involved in fatal crashes 5 percent from the 2014-2018 calendar year rolling average of 72.8 to 69 by December 31, 2020.

C10. Pedestrian Fatalities (FARS)	45	57	52	58	56	**53.6**	**51**

C10. To reduce pedestrian fatalities 5 percent from the 2014-2018 calendar year rolling average of 53.6 to 51 by December 31, 2020.

C11. Bicyclist Fatalities (FARS)	4	15	11	7	4	**8.2**	**8**

C11. To reduce bicyclist fatalities by one from the 2014-2018 calendar year rolling average of 8.2 to 8 by December 31, 2020.

B1. Seat Belt Use Rate (Observed Seat Belt Use Survey)	84.7%	85.8%	88.4%	89.4%	89.3%	**87.5%**	**91.9%**
A1. Number of seat belt citations issued during grant-funded enforcement activities (FFY 2018)			14,661				
A2. Number of impaired-driving arrests made during grant-funded enforcement activities (FFY 2018)			1,904				
A3. Number of speeding citations issued during grant-funded enforcement activities (FFY 2018)			18,068				

The five key performance measures defined by the Federal Highway Administration (FHWA) for use in states' Strategic Highway Safety Plans (SHSPs) are:
- Number of fatalities
- Fatality rate
- Number of serious injuries
- Serious injury rate
- Number of non-motorized fatalities and serious injuries

These first three measures are included in the prior matrix as part of the agreed upon performance measures by the GHSA and NHTSA. We are including the last two in this plan to reflect our commitment to the state's SHSP.

Measure	2014	2015	2016	2017	2018	2014-2018 Avg.	2020 Target
Serious Injury Rate	4.97	4.83	4.76	5.35	4.81	4.942	4.695
To decrease the serious injury rate by 5% from the 2014-2018 calendar year rolling average of 5.260 to 4.997 by 2020.							
Number of non-motorized fatalities and serious injuries	337	365	366	381	368	360.0	342.0
To decrease the number of non-motorized fatalities and serious injuries by 5% from the 2014-2018 calendar year rolling average of 361.4 to 343.3 by 2020.							

Highway Safety Planning Process

The highway safety planning process is circular and continuous. At any one time during the year, the Bureau of Transportation Safety may be working on previous, current, and upcoming fiscal year plans. The SHSP serves as the principal planning document, and the HSP is developed to maximize integration and utilization of data analysis resources, fully represent driver behavior issues and strategies, and utilize any statewide safety committees to obtain input from state and local traffic safety partners. BOTS works to ensure that the goals and objectives contained in the SHSP are considered in the annual development of the HSP and incorporated to the fullest extent possible. BOTS reviews the SHSP and HSP to identify any gaps in addressing driver behavior issues and eliminate any redundancy for the maximum use of resources. The data source used by BOTS in identifying its highway safety problems is primarily the state's crash database, which is managed by BOTS. Other data sources include crash data from NHTSA's Fatality Analysis Reporting System (FARS). Wisconsin's highway safety planning process includes all of the components of 23 C.F.R. 1300.11(a), which are:

(1) Description of the data sources and processes used by the state to identify its highway safety problems, describe its highway safety performance measures,
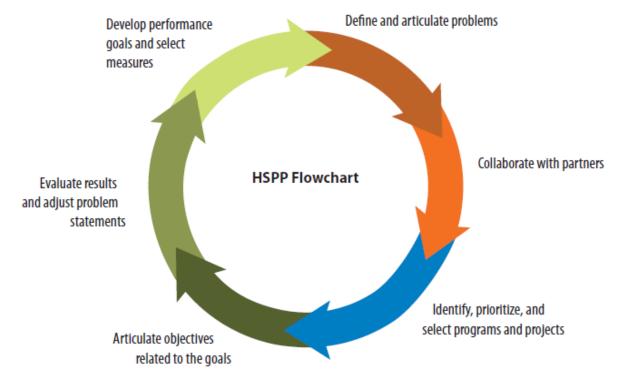
establish its performance targets, and develop and select evidence-based countermeasure strategies and projects to address its problems and achieve its performance targets;

(2) Identification of the participants in the processes (e.g., highway safety committees, program stakeholders, community, and constituent groups);

(3) Description and analysis of the state's overall highway safety problems as identified through an analysis of data, including but not limited to fatality, injury, enforcement, and judicial data, to be used as a basis for setting performance targets and developing countermeasure strategies;

(4) Discussion of the methods for project selection (e.g., constituent outreach, public meetings, and solicitation of proposals);

(5) List of information and data sources consulted; and

(6) Description of the outcomes from the coordination of the HSP, data collection, and information systems with the State SHSP.

HSPP Flowchart

- Develop performance goals and select measures
- Define and articulate problems
- Collaborate with partners
- Identify, prioritize, and select programs and projects
- Articulate objectives related to the goals
- Evaluate results and adjust problem statements

Highway Safety Planning Timeline

November to December
Prepare the prior year's Annual Report. This document is the companion report to the same year's Highway Safety Plan. The report provides NHTSA and the public with a summary of how funds were actually spent in that fiscal year.

January and Continuing
Wisconsin is unique in that we have a law (s. 83.013, Wis. Stat.) that requires all 72 of its counties to have a Traffic Safety Commission. The law further defines who is supposed to participate at the quarterly meetings. A commission is required to include:

the chief county traffic law enforcement officer, the county highway safety coordinator, the county highway commissioner, a DOT engineer from the regional office, the Regional Program Manager from BOTS, a State Patrol Trooper, as well as one representative from each of the education, medicine, and legal professions. We recognize what a fantastic opportunity this requirement gives us to reach out and solicit ideas and input into our planning process, and we utilize this opportunity. In addition, each State Program Manager (SPM) obtains formal and informal recommendations, resources, and information from traditional and non-traditional partners and stakeholders, including public health, emergency medical services, enforcement and adjudication, not-for-profit organizations, businesses, and community coalitions. This activity continues throughout the year (see Appendix 3: Safety: Partners, Committees, and Organizations). During the first quarter of each year, BOTS program analysts and managers review the prior year's data and study the effectiveness of the prior year's projects. They also perform literature reviews and review best practices from other states.

Another valuable committee is the Wisconsin DOT's Traffic Safety Council. This is a multi-disciplinary group that meets on the first Thursday of each month. Representatives from FHWA, FMCSA, BOTS, the Division of Motor Vehicles, the Division of Transportation Investment Management, the Division of Transportation System Development, WisDOT executive offices, and the University of Wisconsin-Madison serve on the committee. This group is responsible for authoring the Wisconsin Strategic Highway Safety Plan (SHSP) required by USDOT for federal Highway Safety Improvement Plan (HSIP) funds.

As an offshoot of Wisconsin's Traffic Safety Council and in compliance with the FAST Act, a Statewide Impaired Driving Task Force was chartered. This Task Force has accomplished a great deal. The group assembled a broad variety of stakeholders, developed a formal charter, approved the Statewide Impaired Driving Plan by agreeing to work on five signature items going forward, helped us to qualify for federal funding, assisted with the development of the federally-required SHSP, and began work on signature items. Similar work groups have been established for other key safety initiatives included in Wisconsin's SHSP.

January to June
After the end of a calendar year, preliminary crash data are evaluated. Analysts may prepare preliminary reports of the previous year's fatality trends. After finalized data are available, the most recent 10 years of crash data are used to determine the magnitude of the problem posed by each crash type and to develop trend lines. Goals are set using five-year rolling averages. In addition, conviction, medical, demographic, survey, program effectiveness, and other relevant data are analyzed and used as appropriate to generate rates, and identify disproportionate representation of subgroups and trends for each program area. BOTS identifies, describes, and analyzes the state's overall highway safety problems through an analysis of the data it maintains or has access to, as authorized to BOTS by the Governor's Representative for Highway Safety in 23 C.F.R. 1300.4(b)(4), including but not limited to fatality, injury, enforcement, and judicial

data. BOTS uses this data as a basis for setting performance targets and developing countermeasure strategies. BOTS utilizes the data to generate targeting lists for enforcement grants. Grantees for the coming FFY are notified of their eligibility and the Regional Program Managers assist grantees with identifying their agency capacity (see Appendix 1: Law Enforcement Grant Targeting).

April to June
Evaluate the nature and magnitude of each type of state-level and program area problem and each target location or group; establish the effectiveness of proposed program activities in addressing the problem; and determine the availability of resources to be applied to the problem and availability of data and information to be used to determine progress toward goals. Where applicable, continuing activities that are determined to have been effective are funded at progressively decreasing federal share. Recommendations from state program assessments are integrated into program objectives and funded activities. Each program expert brings information from the processes described above to a committee of the Bureau of Transportation Safety to be included in the upcoming year's HSP. At the project level; high risk target populations, jurisdictions and behaviors are identified as in the following example: all alcohol and speed-related crash data from the three previous years for every jurisdiction in Wisconsin are analyzed, from those involving property damage, through all ranges of injuries, and those that resulted in death. These data are scientifically weighted, following established statistical protocol.

The annual HSP is coordinated with state and national strategic plans and related operational plans and guidelines, and especially with the WisDOT Strategic Highway Safety Plan. The 10 items of highest priority in the Department's 2017-2020 Strategic Highway Safety Plan are listed below (HSP-related goals bolded):
1. **Improve Safety Culture, Safety Data, Safety Technology**
2. **Reduce Driver Distraction/Improve Driver Alertness**
3. **Reduce Alcohol and Drug-Impaired Driving**
4. **Reduce the Incidence and Severity of Motorcycle Crashes**
5. **Improve Driver Performance (Teens, Older, Competent)**
6. **Improve Non Motorist Safety**
7. Improve Safety of Intersections
8. **Increase Occupant Protection**
9. **Curb Aggressive Driving/ Reduce Speed-Related Crashes**
10. Reduce Lane Departure Crashes

Failure to be ranked in the high priority highway safety issue areas for the 2017-2020 SHSP does not mean the topic is unimportant nor does it mean WisDOT will discontinue planned or on-going initiatives that have yielded results. Initiatives such as making large truck travel safer, enhancing EMS to increase survivability, reducing vehicle-train crashes, improving incident management, improving work zone safety, safe travel in bad weather, and reducing deer/other animal crashes will still be pursued.

Discussion for Wisconsin's 2020-2023 Strategic Highway Safety Plan have begun. Priorities will be set as part of that process, but it is expected they will be similar to the priorities in our current plan. As with prior plans, performance measures will be reviewed and adjusted as participants see fit.

End of June
Internal approval of the plan is received and the HSP is submitted to NHTSA.

Ongoing
Feedback from NHTSA management reviews, including traffic records strategic plans and other reviews of programs areas, are reviewed and incorporated into the planning process as well. Priority is given to the NHTSA Administrator's Motor Vehicle and Highway Safety Priorities, as well as overlapping FHWA and FMCSA safety priorities and goals. The latest version of NHTSA's *Countermeasures That Work* is used as part of project development.

State-Level Problem Identification

The process of identifying problems is integral to the planning process. Information used in identifying problems includes WisDOT state crash, conviction, vehicle, roadway, traffic and survey data, BOTS program effectiveness studies, demographic and other census data, emergency department, hospital discharge and death data from the state Department of Health Services, national surveys, and other relevant data. These data are used, as appropriate, in trend, factor, disproportion, and other analyses of each program area. The ID process is identified under the justification sections of each program plan. In the individual program areas, further program need and justification is identified. Several program areas include plans for enforcement activities. It should be noted that law enforcement grants require individual grantees to set performance measures that take into account all contacts (citations, warning, and stops with no action) with the motoring public. Overall, BOTS attempts to fund the programs that will have the biggest impact on traffic fatalities.

Planning and Administration

The overall management and planning of Bureau of Transportation Safety activities are made possible through state and federal funds. Federal funds cover salaries and benefits of the Grants Management Supervisor, the Policy and Program Supervisor, two FTE Operations Program Associates, 0.5 FTE Office Associate, and 0.5 FTE Office Operations Associate. Funds also cover out-of-state travel and training for each of these staff members.

State money for this program covers the salary and fringe of the Director, the Section Chief, and two full-time analysts.

Staff categorized as Planning and Administration have a positive impact on the traffic safety of Wisconsin. They have the following responsibilities:
- Prioritize the state's most significant highway safety challenges.
- Apply for all federal funding and write the state's Highway Safety Plan.
- Act as representative for the state of Wisconsin as the Highway Safety Coordinator.
- Participate on committees and task forces.
- Target effective law enforcement grants.
- Promote highway safety in Wisconsin.
- Develop internal controls, monitor and analyze policies.
- Ensure grant shells have proper contract language.
- Manage the process of grant reimbursement requests from grant partners, as well as reimbursement requests to the federal government.
- Organize and host the Governor's Conference on Highway Safety.
- Report on results of funding to NHTSA.
- Prepare a report of grants subject to the Federal Funding Accountability and Transparency Act.

Performance Measure: On-time submission of the Highway Safety Plan and the Annual Report:
2012-2018 Submissions: 93% of the plans and reports had on-time submissions. 2020 target: 100% on-time submission.
Expenditures for planning and administration are specifically allowed under Appendix D to Part 1300 and as such are effective as a countermeasure strategy.

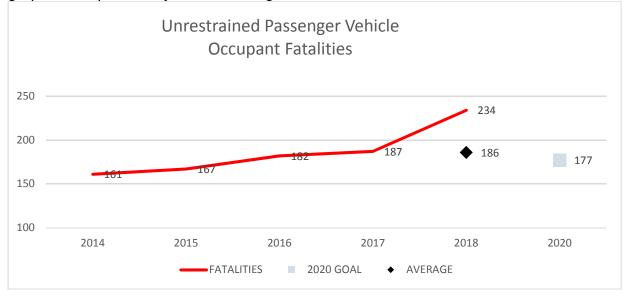| Planning and Administration – Budget Summary		
Fund	**Account**	**2020 Planned**
402	**2020-10-01-PA**	**$320,000**
State 562	**2020-19-01-WI**	**$530,000**
	Program Total	**$850,000**

Occupant Protection Program

Justification

This section serves as Wisconsin's occupant protection program plan as required under the FAST Act.
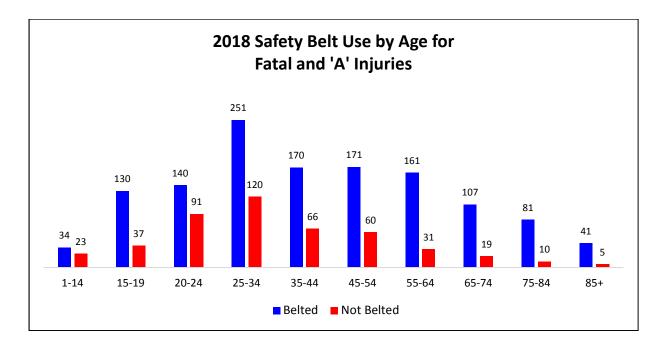
In 2000 (base year), Wisconsin's observed statewide seat belt use was very low at 65.4%. That year, 1,148 people were ejected or partially ejected in crashes and 40.5% of crash victims who were not belted were either killed or incapacitated.

In 2018, observed average statewide seat belt use was 89.3%. While higher than 18 years ago, it is still trailing the national average usage rate of 90%. The 11.7% of our population that does not buckle up accounts for almost 43% of our vehicle occupant fatalities. This low usage rate means that Wisconsin is required to meet more criteria in order to be eligible to receive funding. The first criterion which Wisconsin meets is the presence of a primary enforcement law for all seating positions. Legal citation: 2009 Wisconsin Act 28, s. 347.48(2m), Wis. Stat. See Appendix B.

Unrestrained passenger vehicle occupants is performance measure C4. Below is the graph of the prior five years and the goal for 2020.
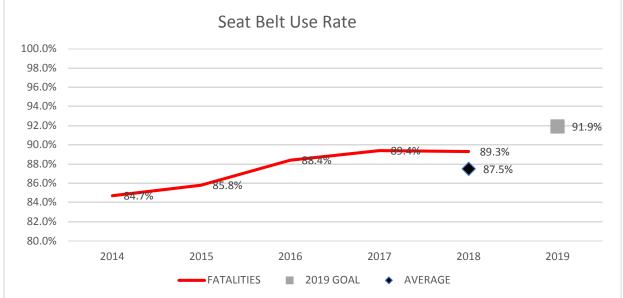

Unrestrained Passenger Vehicle Occupant Fatalities

Seat belt usage lags with our most inexperienced drivers, those between the ages of 15 and 34.

2018 Safety Belt Use by Age for Fatal and 'A' Injuries

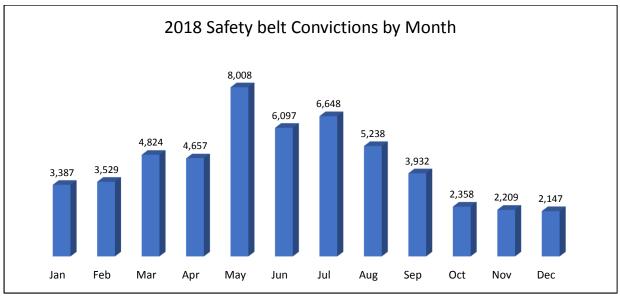| Age	Belted	Not Belted
1-14	34	23
15-19	130	37
20-24	140	91
25-34	251	120
35-44	170	66
45-54	171	60
55-64	161	31
65-74	107	19
75-84	81	10
85+	41	5

■ Belted ■ Not Belted

Wisconsin meets additional criterion for the enforcement of two high-risk populations. For seat belt enforcement grants, 50% of enforcement must be conducted during hours of darkness. Additionally, counties with a high number of 16-19-year-old unbelted drivers are targeted specifically for seat belt enforcement funding. More details can be found in Appendix 1: Law Enforcement Grant Targeting Methodology, in the discussion on how grants are targeted.

Performance measure B1 and our goal is are in the chart below.

Seat Belt Use Rate

Year	Fatalities	2019 Goal	Average
2014	84.7%		
2015	85.8%		
2016	88.4%		
2017	89.4%		
2018	89.3%		87.5%
2019		91.9%	

— FATALITIES ■ 2019 GOAL ◆ AVERAGE

Wisconsin law enforcement agencies sustain their enforcement of seat belt and child restraint laws throughout the year. This graph reveals the yearlong effort.

2018 Safety belt Convictions by Month

Month	Convictions
Jan	3,387
Feb	3,529
Mar	4,824
Apr	4,657
May	8,008
Jun	6,097
Jul	6,648
Aug	5,238
Sep	3,932
Oct	2,358
Nov	2,209
Dec	2,147

Under the FAST Act, Wisconsin is required to submit a seat belt plan that documents how law enforcement will participate in sustained seat belt enforcement to cover at least 70% of the state's population. This section serves as that plan. The percentage of the population targeted by enforcement programs is as follows:

Targeting Type	Population	WI 2018 Population	Percentage Targeted
Population of Counties Targeted Not Based on High Fatality, Injury, and Crash Rates	3,946,733	5,816,231	67.86%
Population of Counties Targeted Based on High 16-19-Year-Old Unbelted Drivers	139,064	5,816,231	2.39%
Total	4,085,797	5,816,231	70.25%

In 2018, there were 50,875 convictions for failure to fasten seat belts, a 14% decrease from 2017; and there were 2,912 convictions for child restraint violations, an 8% increase over 2017. For the period 1994-2018, individuals not wearing a seat belt were 52.7 times more likely to be ejected from their vehicle. In addition, they were 11 times more likely to be killed than someone wearing a shoulder and lap belt at the time of the crash. A 13.9% fatality rate equates to approximately a one in seven chance of being killed.

Highway Safety Office Program Management / Program Management and Strategic Planning

Assess Traffic Safety Impact:

> This state program manager position will positively impact traffic safety in Wisconsin by coordinating, planning, and managing the state occupant protection programs. Goals that will have a positive impact on traffic safety in Wisconsin include enhancing volunteer agency participation, increasing community

involvement, working with community organizations and non-profit programs to expand occupant protection activities and efforts, and encouraging state and local input into the HSP development process.

Linkage:

Funding program management and strategic planning for the occupant protection program will aid the state in reaching performance target C1, to decrease annual fatalities two percent from the 2014-2018 calendar year rolling average of 576 to 564.5 in 2020.

Rationale for Selecting Countermeasure/Amount:

Hiring a full-time occupant protection coordinator is specifically allowed under 402. Expenditures in 2018 were $63,654.97.

Description:

This activity will fund wage, fringe, data processing, materials and supplies, training and travel, printing, and postage for the work of this position. This position will work with Regional Program Managers, Law Enforcement Liaisons, and law enforcement agencies of all sizes to coordinate occupant protection efforts, encourage safe and effective high-visibility enforcement and participation in mobilizations. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-20-01-OP**	$85,000	$0

High-Visibility Saturation Patrols / Enforcement

Assess Traffic Safety Impact:

Enforcement provides a deterrent effect affecting a person's decision to operate a motor vehicle without a seat belt. Enforcement increases the perception of the risk of being arrested. This strategy will decrease the incidence of fatalities and unbelted crashes.

Linkage:

Enforcement of the law prohibiting the operation of a motor vehicle while not wearing a seatbelt will provide support to the state in reaching performance target C1, to decrease annual fatalities two percent from the 2014-2018 calendar year rolling average of 576 to 564.5 in 2020.

Rational for Selecting Countermeasure/Amount:

BOTS uses the high-visibility enforcement task force model for all its enforcement grants, which is a proven countermeasure strategy. This countermeasure is being funded at the same level as is planned in the 2019 Highway Safety Plan. This project is a countermeasure that works on pages 2-16, 2-18, and 2-21 of the ninth edition. It is specifically allowed under 23 CFR § 1300.21(f)(1)(i). Enforcement of seat belt laws will lead to greater compliance with those laws. Expenditures in 2018 were $1,324,773.22 and $481,542.22.

Description:

Encourage law enforcement agencies to make occupant protection a priority by writing citations, sponsoring media events, and working overtime in geographical areas where low seat belt use is prevalent. Plan statewide participation, encourage voluntary participation, and provide overtime funding for high-visibility

enforcement task forces for occupant protection, including nighttime enforcement, accompanied by media for a demographic. These task forces will consist of multiple law enforcement agencies that coordinate their enforcement efforts during the same time frame. Enforcement provides a deterrent effect which affects a person's decision to operate a motor vehicle while unbelted. Enforcement increases the perception of the risk of being ticketed. This strategy will decrease the incidence of unbelted fatalities. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Targeted Grantees	402	**2020-20-05-OP**	$1,460,000	$1,246,000
Targeted Grantees	405b	**2020-25-05-M2**	$512,000	$512,000

*Should additional dollars be available, more occupant protection enforcement will occur.

High-Visibility Enforcement / Click It Or Ticket (CIOT) Mobilization

Assess Traffic Safety Impact:

The effect of this program will be increased awareness of occupant protection efforts. The anticipated impact of this countermeasure strategy is a decrease in unbelted fatalities.

Linkage:

Encouraging participation in the CIOT national enforcement mobilization will support the state in attaining performance target C1, to decrease annual fatalities two percent from the 2014-2018 calendar year rolling average of 576 to 564.5 in 2020.

Rational for Selecting Countermeasure/Amount:

The FAST Act under 23 CFR § 1300.21 (d)(2) requires states to participate in Click-It-Or-Ticket. This countermeasure strategy is planned to be funded based on the number of participants in the mobilizations. Agencies are required to expend their own funds on paid media, a countermeasure that works on page 2-22 of the ninth edition. In 2019, approximately $295,000 was expended on equipment related to the Click It or Ticket national enforcement mobilization.

Description:

This will be used to provide equipment to some of the law enforcement agencies that participate in the Click It or Ticket mobilization. The FAST Act requires states to participate in three national enforcement mobilizations. The state will participate in the Click It or Ticket national enforcement mobilization. BOTS encourages all law enforcement agencies to participate in the traffic safety commissions in each county. All agencies that participate in the CIOT mobilization will need to sign a contract when they register before they can be included in the selection to receive equipment. Not all agencies receive equipment. Equipment must be on a pre-approved list, and equipment must support traffic enforcement activities. The effect of this project will be increased awareness of seat belt law enforcement efforts. This program supports collaborative enforcement efforts.

No equipment purchased with this activity will be major equipment since all equipment will have an acquisition cost of less than $5,000 in value. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
One-third of Participants that fulfill guidelines	402	**2020-20-06-OP**	$400,000	$400,000

Child Passenger Safety (CPS) Programming

Assess Traffic Safety Impact:
> The effect of this program will be increased awareness of child occupant protection efforts. The anticipated impact of this countermeasure strategy is a decrease in unbelted fatalities.

Linkage:
> Training locals on CPS will support the state in attaining performance target C1, to decrease annual fatalities two percent from the 2014-2018 calendar year rolling average of 576 to 564.5 in 2020.

Rational for Selecting Countermeasure/Amount:
> This project is in accordance with NHTSA's Countermeasures that Work, ninth edition, 2-32. It is specifically allowed under 23 CFR § 1300.21(f)(1)(ii), (iii), and (iv). This project will lead to increased child restraint use. In 2018 expenditures were $132,084.06.

Description:
> Support and administrative costs for statewide Child Passenger Safety Advisory Committee. Partnership with a contractor named through a state-sanctioned request for proposal to support and administer statewide CPS Technician Training including recruitment, training, education, and retention rates that will service the level of need in the state of Wisconsin. BOTS will work with the contractor to provide additional CPS training materials to community partners and for local events. CPS Training for law enforcement agencies, judges and other safety partners with community programs. Youth and senior seat belt initiatives including training opportunities for law enforcement. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Children's Hospital	405b	**2020-25-03-M2**	$230,000	$180,000

Rational for Selecting Countermeasure/Amount:
> This project is in accordance with NHTSA's Countermeasures that Work, ninth edition, 2-35. It is specifically allowed under 23 CFR § 1300.21(f)(1)(vi). This project will lead to increased child restraint use. In 2018 expenditures were $132,084.06.

Description:
> This project will change the behavior of those that transport children, providing child safety seats, installation and occupant protection education. 2018 expenditures were $136,569.66 for 402 and $46,510.43 for 405b.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Various local health services	402	**2020-20-06-OP**	$188,000	$188,000
Various local health services	405b	**2020-25-06-M2**	$54,000	$54,000

Contract for CIOT Mobilization Post Observational Surveys
Assess Traffic Safety Impact:
> The effect of this program will be increased awareness of occupant protection efforts. The anticipated impact of this countermeasure strategy is a decrease in unbelted fatalities.

Linkage:
> Assessing where the state is each year in terms of performance target B1.

Rational for Selecting Countermeasure/Amount:
> This project is specifically allowed under 23 CFR § 1300.21(f)(1)(v). In 2018 expenditures were $56,454.00.

Description:
> Contract for CIOT Mobilization Post Observational Surveys to include June Observational Surveys. Participation in the Click It or Ticket national enforcement mobilization is a requirement for receiving federal funds, and the survey that is conducted as a result of this project will provide us with more information on the effectiveness of this mobilization that will inform future mobilizations. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
UW-Whitewater	405b	**2020-25-09-M2**	$65,000	$0

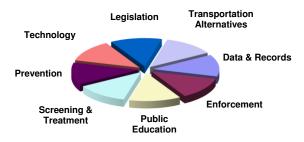**Public Information and Education**:
All media plans and public information and education for all issue areas are in the Community Traffic Safety Outreach and Media Programs.

Occupant Protection – Budget Summary		
Fund/Source	**ID**	**Amount**
402	**2020-20-01-OP**	**$85,000**
402	**2020-20-05-OP**	**$1,460,000**
405b	**2020-25-05-M2**	**$512,000**
402	**2020-20-06-OP**	**$588,000**
405b	**2020-25-03-M2**	**$230,000**
405b	**2020-25-06-M2**	**$54,000**
405b	**2020-25-09-M2**	**$65,000**
	Total	**$2,994,000**

Impaired Driving Program

Justification
As in years past, impaired driving continues to be a serious problem in Wisconsin. The pie chart represents WisDOT's belief that no one solution for this problem exists and illustrates the comprehensive approach that needs to be considered in each community. The size of the pie pieces does not reflect their relative importance, which varies depending on where a community is located within the state.
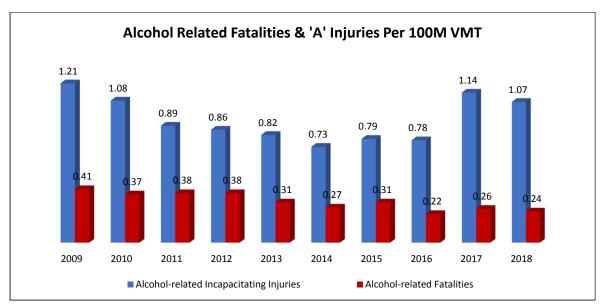

Impaired driving has a high economic cost to the state, as determined using national cost estimates obtained from the National Safety Council (NSC). Applying this approach to 2018 crash statistics demonstrates the significant cost to the state. See performance measure C5 in the introduction for a performance measure and goal for this program.

Economic Loss from OWI-RelatedTraffic Crashes 2018

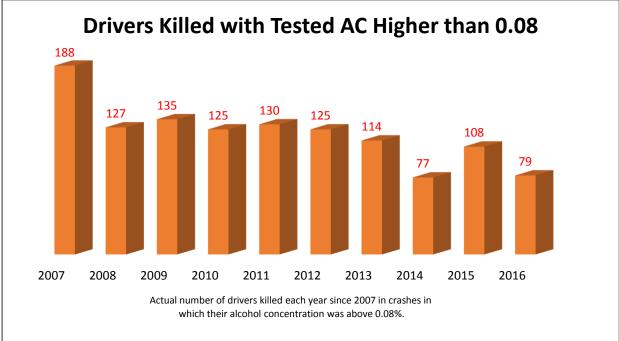| Crash Severity	Total	Cost Per Crash	Total Cost
Fatality (K)	**152**	**$1,562,000**	**$237,424,000**
Incapacitating (A)	**666**	**$91,200**	**$60,739,200**
Non-incapacitating (B)	**1,444**	**$26,300**	**$37,977,200**
Possible (C)	**963**	**$21,700**	**$20,897,100**
Property Damage	**3,130**	**$4,300**	**$13,459,000**
Total Economic Loss			**$370,496,500**

Note that the injury categories are actual people injured, unlike the property damage crashes, which are events. All crashes - injury or not - have a property damage element. For a more complete explanation of items included in per occurrence estimates, visit www.nsc.org

In 2003 (Wisconsin's base year), 9,007 alcohol-related crashes resulted in 348 deaths (42% of all deaths) and 6,445 injuries. Since then, Wisconsin has seen significant improvement. In 2018, 6,236 alcohol-related crashes resulted in 152 deaths and 3,278 injuries—but alcohol remains a factor in 30.2% of all deaths.
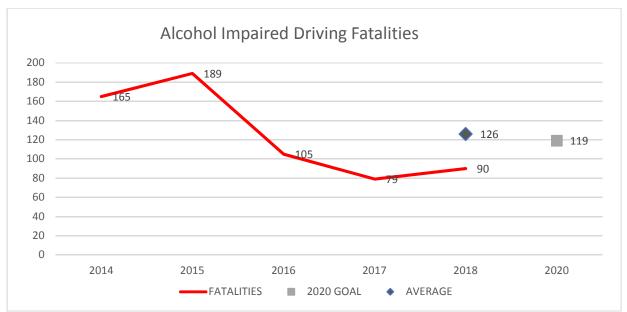
As the first graph on the next page illustrates, combined alcohol-related fatalities and incapacitating ('A') injuries have declined since 2009, with a significant decrease in fatalities between 2009 and 2018. In 2009, the alcohol fatality rate was 0.41 per 100M VMT compared to 0.24 per 100M VMT in 2018, a 41 % decrease.
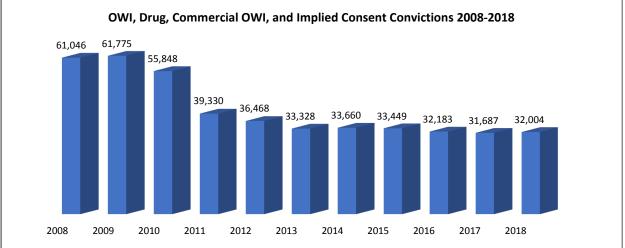
Alcohol Related Fatalities & 'A' Injuries Per 100M VMT

Year	Alcohol-related Incapacitating Injuries	Alcohol-related Fatalities
2009	1.21	0.41
2010	1.08	0.37
2011	0.89	0.38
2012	0.86	0.38
2013	0.82	0.31
2014	0.73	0.27
2015	0.79	0.31
2016	0.78	0.22
2017	1.14	0.26
2018	1.07	0.24

■ Alcohol-related Incapacitating Injuries   ■ Alcohol-related Fatalities

The next graph illustrates the number of drivers killed each year since 2007 in crashes in whose blood alcohol concentration was above 0.08.

Drivers Killed with Tested AC Higher than 0.08

Year	Drivers Killed
2007	188
2008	127
2009	135
2010	125
2011	130
2012	125
2013	114
2014	77
2015	108
2016	79

Actual number of drivers killed each year since 2007 in crashes in which their alcohol concentration was above 0.08%.

The next graph illustrates performance measure C5. Alcohol Impaired Driving Fatalities.

Alcohol Impaired Driving Fatalities

In 2018, 32,004 convictions for operating a motor vehicle while intoxicated were entered into driver records, compared to 31,687 in 2017

OWI, Drug, Commercial OWI, and Implied Consent Convictions 2008-2018

Under the FAST Act, Wisconsin is considered a low-range state with a 0.29 alcohol impaired-driving fatality rate per 100 million VMT. Prior to becoming a low-range state, Wisconsin was a mid-range state and was required to convene a statewide impaired driving task force and develop a Statewide Impaired Driving Plan. Wisconsin's task force convened on August 6, 2013, established a charter, set priorities, and submitted its first report by September 1, 2013. The task force has approved a new Statewide Impaired Driving Plan, dated May 23, 2016, and is submitting it in this Highway Safety Plan. See supplemental appendix AL-1 for this report. This report identifies six signature initiatives.

- Reducing the Cultural Acceptance of Impaired Driving
- Reducing Drinking among Persons under Age 25
- Streamlining OWI Enforcement and Prosecution Processes
- Improving Drugged Driving Recognition
- Promoting Alternative Transportation Programs

- Improving Data Collection, Sharing, and Distribution

BOTS continues to convene this work group quarterly and it serves as the Impaired Driving Work Group for our state's Strategic Highway Safety Plan issue area.

Highway Safety Office Program Management / Program Management and Strategic Planning

Assess Traffic Safety Impact:

This state program manager position will positively impact traffic safety in Wisconsin by coordinating, planning, and managing the state impaired driving programs. Goals that will have a positive impact on traffic safety in Wisconsin include enhancing volunteer agency participation, increasing community involvement, working with community organizations and non-profit programs to expand impaired driving activities and efforts, and encouraging state and local input into the HSP development process.

Linkage:

Funding program management and strategic planning for the impaired driving program will aid the state in reaching performance target C5, to decrease annual alcohol-impaired driving fatalities five percent from the 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rationale for Selecting Countermeasure/Amount:

Hiring a full-time impaired driving coordinator is specifically allowed under 23 CFR §1300.23(j)(1)(ii). Expenditures in 2018 were $78,656.50.

Description:

This activity will fund wage, fringe, data processing, materials and supplies, training and travel, printing, and postage for the work of this position. This position will work with Regional Program Managers, Law Enforcement Liaisons, and law enforcement agencies of all sizes to coordinate impaired driving efforts, encourage safe and effective high-visibility enforcement and participation in mobilizations. This position will also work directly with the DRE program coordinator to provide support of the Wisconsin Drug Evaluation and Classification program. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405d	**2020-31-01-M5**	$85,000	$0

Promotion of Transportation Alternatives

Assess Traffic Safety Impact:

Promoting transportation alternatives for intoxicated persons from establishments licensed to sell alcohol beverages to their home will result in a decrease in alcohol-related crashes.

Linkage:

Wisconsin's transportation alternatives programs will provide support to the state in reaching performance target C5, to decrease annual alcohol-impaired driving

crashes five percent from the 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rationale for Selecting Countermeasure/Amount:

The Wisconsin Department of Transportation (WisDOT) administers a state-funded safe-ride grant program and supports other federally-funded transportation alternatives programs to bolster efforts to reduce the incidence of operating a motor vehicle while intoxicated in local communities. Expenditures of federal funds in 2018 were $70,060.18, and expenditures of state funds were $625,899.

Description:

BOTS will collaborate with the Tavern League of Wisconsin in administering the WisDOT's safe-ride grant program throughout the state. The Tavern League of Wisconsin's SafeRide Program collaborates with Lyft in some jurisdictions. This is a state funded program.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Tavern League of Wisconsin	State 531	**2020-39-04-WI**	$700,000	$700,000

Rationale for Selecting Countermeasure/Amount:

Countermeasures That Work, ninth edition, page 1-57. We are expanding this program.

Description:

As an enhancement to law enforcement grants and efforts, additional funds will be provided to law enforcement agencies that coordinate alternative transportation in communities. This will also fund grants to provide short-term alternative transportation (vans, buses, or vehicles) to transport community members from local summer events to their home. These festival grants are local in nature such as a beer tent or annual fundraiser where alcohol is legally served. The grant also covers limited marketing and advertising costs as it relates to responsible drinking. There must be sufficient evidence that a safe ride program has the potential of reducing risk due to drinking and driving. Grant applicants should provide some evidence that poor driver judgment could be expected, and that drinking and driving has been a problem at the event they are applying for. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Baraboo, Lodi, Sauk Prairie, Spring Green, Arlington, Crawford Co, Barron Co, Town of Beloit, Spring Green, Watertown, Seymour	402	**2020-30-04-AL**	$120,000	$120,000

High-Visibility Saturation Patrols / Enforcement

Assess Traffic Safety Impact:

Enforcement provides a deterrent effect on a person's decision to operate a motor vehicle while intoxicated. Enforcement increases the likelihood and increased perception of the risk of being arrested and helps decrease the incidence of OWI.

Linkage:

Enforcement of the law prohibiting the operation of a motor vehicle while intoxicated will provide support to the state in reaching performance target C5, to decrease annual alcohol-impaired driving crashes five percent from the 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rational for Selecting Countermeasure/Amount:

BOTS uses the high-visibility enforcement task force model for all its enforcement grants, which is a proven countermeasure strategy and is allowable under 23 CFR §1300.23(j)(1)(i). This countermeasure is being funded at the same level as is planned in the 2019 Highway Safety Plan.

Description:

Encourage law enforcement agencies to make OWI a priority by writing citations, sponsoring media events, and working overtime in geographical areas where impaired driving is highest. Plan statewide participation, encourage voluntary participation, and provide overtime funding for high-visibility enforcement task forces for impaired driving, including nighttime enforcement, accompanied by media for a demographic. These task forces will consist of multiple law enforcement agencies that coordinate their enforcement efforts during the same time frame. Enforcement provides a deterrent effect on a person's decision to operate a motor vehicle while intoxicated. This strategy will decrease the incidence of OWI. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol. Targeting methodology can be found in Appendix 1. In addition, a law enforcement agency that wants to gauge the size of the drugged driving population can include roadside collection in their impaired driving enforcement.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Targeted Grantees	405d	**2020-31-05-M5**	$1,825,000	$1,590,000

High-Visibility Enforcement / Drive Sober or Get Pulled Over Mobilization

Assess Traffic Safety Impact:

The effect of this program will be increased awareness of impaired driving enforcement efforts. The anticipated impact of this countermeasure strategy is a decrease in impaired driving.

Linkage:

Encouraging participation in two Drive Sober or Get Pulled Over national enforcement mobilizations will support the state in attaining performance target

C5, to decrease annual alcohol-impaired driving fatalities five percent from the 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rational for Selecting Countermeasure/Amount:

23 CFR part 1300.11(d)(6) requires states to participate in three national enforcement mobilizations. This will include participating in Drive Sober or Get Pulled Over mobilizations around Labor Day as well as around the winter holidays. This countermeasure strategy in the ninth edition of Countermeasures That Work on page 1-27 and is planned to be funded based on the number of participants in the mobilizations.

Description:

This planned activity is for the Drive Sober or Get Pulled Over mobilization during the winter holidays and the Drive Sober or Get Pulled Over mobilization around the Labor Day holiday. This program supports collaborative enforcement efforts. Law enforcement agencies that participate in this mobilization coordinated by BOTS may be considered in a drawing for equipment that is provided to law enforcement agencies to conduct ongoing high-visibility enforcement within their jurisdictions to improve traffic safety. Not all agencies receive equipment. Law enforcement agencies receiving equipment must fulfill guidelines set by BOTS, which includes signing a project agreement prior to reporting enforcement activity during the mobilization, as well as a commitment to community education about traffic safety, the engagement of the local media, the reporting of enforcement data, and, if possible, coordination with other law enforcement agencies through their county traffic safety commissions. Agencies chosen for an equipment grant will sign a contract to receive equipment. BOTS will encourage local law enforcement to engage in the enforcement of impaired driving laws in their community to create awareness of impaired driving enforcement efforts and education about the benefits of wearing safety belts, and BOTS will encourage local law enforcement to view impaired driving enforcement as a sustained effort rather than an occasional enforcement mobilization. Equipment must support ongoing traffic enforcement activities. Agencies are required to expend their own funds on paid media. No equipment purchased with this activity will be major equipment since all equipment will have an acquisition cost of less than $5,000 in value. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
One-third of Participants that fulfill guidelines	402	**2020-30-06-AL**	$800,000	$800,000

Drug Recognition Expert (DRE) Training / Drug Evaluation and Classification Program

Assess Traffic Safety Impact:

> The education of law enforcement and education professionals will lead to the increased ability to identify driving under the influence of drugs (DUID). This strategy will decrease the incidence of DUID.

Linkage:

> Funding the Drug Evaluation and Classification Program will aid the state in reaching performance target C1, to decrease the five-year average number of traffic fatalities two percent from the 2014-2018 calendar year rolling average of 576.0 to 564.5 in 2020.

Rational for Selecting Countermeasure/Amount:

> This countermeasure strategy aligns the state with national priorities and is allowable under 23 CFR §1300.23(j)(1)(vi) and will eventually lead to less incidence of DUID. More funding is being allocated to this program in 2020 since we are increasing the size of this program.

Description:

> The education of law enforcement and other traffic safety professionals will lead to the increased ability to identify driving under the influence of drugs (DUID). This program supports a contracted coordinator position and includes expenses to train new Drug Recognition Experts (DREs). In addition, costs are covered to provide continuous training and re-certification for existing DREs. DRE expenses, including instructor wages, travel to conferences, supplies (such as DRE kits), printing, postage, lodging, and meals for students and instructors are covered. BOTS also supports DRE callouts to assist other agencies where a DRE evaluation is needed. In the case of a DRE evaluation where synthetic cannabinoids are suspected, BOTS will pay for the cost of the test. WisDOT will fund expenses and instructor costs related to programs including Advanced Roadside Impaired Driving Enforcement (ARIDE), Drugs That Impair Driving (eight-hour drug block), Drug Impairment Training for Educational Professionals (DITEP), and Standard Field Sobriety Testing (SFST). BOTS will continue to expand the ARIDE program by increasing the number of classes to accommodate demand. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405d	**2020-31-03-M5**	$275,000	$275,000

Traffic Safety Resource Prosecutors

Assess Traffic Safety Impact:

> Providing training, education, and technical support to those prosecuting offenders of the state's OWI laws will ensure that appropriate sanctions are delivered to offenders, which will reduce repeated incidence of impaired driving.

Linkage:

Providing funding for the state's Traffic Safety Resource Prosecutors will help the state reach performance target C5, to decrease annual alcohol-impaired driving fatalities five percent 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rational for Selecting Countermeasure/Amount:

Prosecutors around the state can learn from their strategies in complex or nuanced cases, and these cases help set solid precedent. This program is under Countermeasures That Work, ninth edition, on page 1-34. Expenditures in 2018 were $329,707.40.

Description:

This planned activity includes salary and fringe for two statewide Traffic Safety Resource Prosecutors acting as a resource on legal issues surrounding OWI and the prosecution of those offenders. They will provide specialized training to prosecutors, judges, law enforcement, and others in the state. They will also conduct outreach at county traffic safety commissions. These positions also provide technical assistance to a wide variety of professionals such as law enforcement officers, Drug Recognition Experts, blood and alcohol testing staff, and policy development staff. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Wisconsin DOJ	402	**2020-30-03-AL**	$330,000	$82,500

Judicial Outreach Liaison

Assess Traffic Safety Impact:

Providing training, education, and technical support to judges for the state's operating a motor vehicle while intoxicated laws to ensure that appropriate sanctions are delivered to offenders, which will reduce repeated incidence of impaired driving.

Linkage:

Providing funding for the state's Judicial Outreach Liaison will help the state reach performance target C5, to decrease annual alcohol-impaired driving fatalities five percent 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rational for Selecting Countermeasure/Amount:

The creation of a Judicial Outreach Liaison is a task identified in Wisconsin's Strategic Highway Safety Plan. Judges around the state can learn from complex or nuanced cases, and these cases help set solid precedent. This program is allowable under 23 CFR §1300.23(j)(1)(iii). This is a new program for Wisconsin.

Description:

This planned activity includes salary and fringe for one statewide Judicial Outreach Liaison acting as a resource on legal issues surrounding OWI. They will provide specialized training to judges, law enforcement, and others in the state. They will also conduct outreach at county traffic safety commissions. This

position also provides technical assistance to a wide variety of professionals such as law enforcement officers, Drug Recognition Experts, blood and alcohol testing staff, and policy development staff. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405d	**2020-31-03-M5**	$75,000	$75,000

DWI Courts / Adjudication
Assess Traffic Safety Impact:
> Ongoing training helps adjudicate OWI cases effectively.

Linkage:
> Providing funding for agencies to participate in training offered by the National Center for Driving While Intoxicated (DWI) Courts (NCDC) will support the state in attaining performance target C5, to decrease annual alcohol-impaired driving fatalities five percent from the 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rationale for Selecting Countermeasure/Amount:
> DWI Courts are a proven countermeasure, and this countermeasure strategy is allowable under 23 CFR §1300.23(j)(1)(iii) and will allow specialists in Wisconsin to learn best practices from specialists in other jurisdictions. Approved reimbursements in 2018 were $1,658.00 as only one county was able to participate.

Description:
> This planned activity will provide funding for travel cost for agencies to participate in training offered by NCDC. These training sessions are partnerships between NCDC, NHTSA and the state highway safety offices. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405d	**2020-31-03-M5**	$10,000	$10,000

24-7 Sobriety Program / Frequent Sobriety Testing Pilot Programs
Assess Traffic Safety Impact:
> This countermeasure strategy will result in a reduction in OWI recidivism.

Linkage:
> Providing funds to help start Wisconsin's Frequent Sobriety Testing Pilot Program will serve the state in reaching performance target C5, to decrease annual alcohol-impaired driving fatalities five percent 2014-2018 calendar year rolling average of 125.6 to 119 in 2020.

Rationale for Selecting Countermeasure/Amount:

      The countermeasure strategy has proven to be very effective at reducing OWI recidivism and is allowable under 23 CFR §1300.23(j)(1)(x). This countermeasure strategy is planned to be funded at the same amount as indicated in the 2019 Highway Safety Plan.

Description:

      The Wisconsin Department of Justice will create 24-7 sobriety pilot programs in selected Wisconsin counties. These programs will require an individual arrested for or convicted of driving under the influence of alcohol to abstain from alcohol and be subject to testing for alcohol at least twice per day. Funding will be used for start-up projects only. Programs will be proportionally-funded to ensure NHTSA funds will be used for that proportion of the program whose participants have convictions related to impaired driving. The goal is for the programs to become self-sufficient. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Wisconsin DOJ	405d	**2020-31-04-M5**	$70,000	$70,000

Data and Program Evaluation

Assess Traffic Safety Impact:

      The evaluation of the impaired driving program and of the impaired driving issues within the state will create a better a highway safety program, thereby improving traffic safety.

Linkage:

      Providing funds for research and surveys in the impaired driving program will help the state reach performance target C1, to decrease the five-year average number of traffic fatalities two percent from the 2014-2018 calendar year rolling average of 576.0 to 564.5 in 2020.

Rationale for Selecting Countermeasure Amount:

      This is a continuing countermeasure strategy that has been successful in determining the scope of the drugged driving problem in Wisconsin and is allowable under 23 CFR §1300.23(j)(1)(vi). It has also been successful in evaluating the effectiveness of paid media for impaired driving. Expenditures in 2017 were $57,739.86.

Description:

      The planned activity will collect data regarding driving under the influence of drugs in a small metropolitan area. It will help to identify the size and scope of the state's drugged driving program. A past project studied this problem in a larger metropolitan area. This project will use roadside oral fluid testing devices in conjunction with forensic toxicology testing of the legal blood draw to examine the validity and efficacy of the roadside devices. Drug Recognition Experts (DRE) will administer the roadside testing and the data from the device and the DRE evaluation will be compared. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Wisconsin State Lab of Hygiene	405d	**2020-31-09-M5**	$60,000	$60,000

Rationale for Selecting Countermeasure Amount:

In order to understand the knowledge, attitude, and behavior of youth, it is necessary to survey youth. This is in Countermeasures That Work, ninth edition, page A1-12.

Description:

This planned activity will evaluate the effectiveness of impaired driving paid media and capture the knowledge, attitudes, and behaviors of youth drivers. This project has been done in previous years, and it has been successful. In 2020, BOTS will enter into a new collaboration with the Wisconsin Department of Health Services to conduct this evaluation.

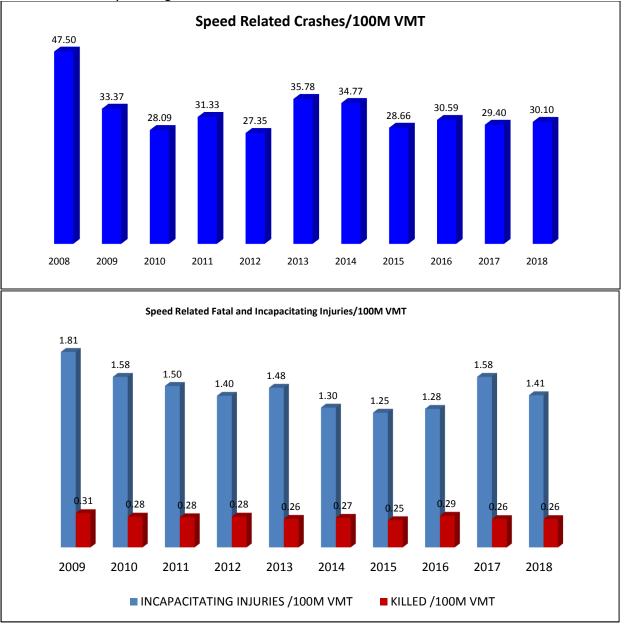| Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Wisconsin DHS	402	**2020-30-09-AL**	$25,000	$0

Public Information and Education:

All media plans and public information and education for all issue areas are in the Community Traffic Safety Outreach and Media Programs.

Impaired Driving -- Budget Summary		
405d	2020-31-01-M5	$85,000
State	2020-39-04-WI	$700,000.00
402	2020-30-04-AL	$120,000.00
405d	2020-31-05-M5	$1,825,000.00
402	2020-30-06-AL	$800,000.00
405d	2020-31-03-M5	$275,000.00
402	2020-30-03-AL	$330,000.00
405d	2020-31-03-M5	$75,000.00
405d	2020-31-03-M5	$10,000.00
405d	2020-31-04-M5	$70,000.00
405d	2020-31-09-M5	$60,000.00
402	2020-30-09-AL	$25,000.00
	Total	**$4,375,000.00**

Police Traffic Program

Justification
The number of crashes for which speed is recorded as a possible contributing circumstance (PCC) is assumed to be far fewer than the number of crashes for which speed actually played a factor. This assumption is based on data indicating that speeding is the most commonly cited driver behavior. Speed-related crashes resulted in 33% of all deaths and 27% of all injuries in 2018 (preliminarily). In addition, 173 people died and 7,957 were injured in 19,997 speed-related crashes. In total, there were 164,384 convictions for speeding violations in 2018.

Speed Related Crashes/100M VMT

Year	Value
2008	47.50
2009	33.37
2010	28.09
2011	31.33
2012	27.35
2013	35.78
2014	34.77
2015	28.66
2016	30.59
2017	29.40
2018	30.10

Speed Related Fatal and Incapacitating Injuries/100M VMT

Year	INCAPACITATING INJURIES /100M VMT	KILLED /100M VMT
2009	1.81	0.31
2010	1.58	0.28
2011	1.50	0.28
2012	1.40	0.28
2013	1.48	0.26
2014	1.30	0.27
2015	1.25	0.25
2016	1.28	0.29
2017	1.58	0.26
2018	1.41	0.26

Performance measure C6. and the goal are illustrated in the graph below.

Speeding Related Driving Fatalities

Economic Cost of Inattentive Driving Crashes in Wisconsin, 2014-2018 Average

	2014-2018 Average	Economic Cost per Crash[1]	Annual Economic Cost
Property-Damage-Only Crashes	15,883.4	$4,400	$69,886,960
Possible Injury Crashes	5,149.6	$22,300	$114,863,080
Non-incapacitating Injury Crashes	3,256.8	$27,100	$88,259,280
Incapacitating Injury Crashes	636.4	$93,800	$59,694,320
Fatal Crashes	84.4	$1,615,000	$136,306,000
Total	25,011		$468,982,640

[1]National Safety Council. "Estimating the Costs of Unintentional Injuries, 2017." (adjusted for inflation)
https://injuryfacts.nsc.org/all-injuries/costs/guide-to-calculating-costs/data-details/

In 2018, there were 55 fatalities and 481 incapacitating injuries as a result of inattentive driving. Distracted driving results in an economic cost of over $468 million to the state annually.

According to Wisconsin State Statutes, writing or sending emails or text messages while driving is illegal - "No person may drive… any motor vehicle while composing or sending an electronic text message or an electronic mail message," Wis. Stats. §346.89(3)(a). In addition, in November 2012, a state law went into effect that prohibits drivers with an

instruction permit or probationary license, which includes many teenagers, from "using a cellular or other wireless telephone except to report an emergency" while driving. In addition, inattentive driving is also illegal according to Wisconsin law - "No person while driving a motor vehicle may be engaged or occupied with an activity, other than driving the vehicle, that interferes or reasonably appears to interfere with the person's ability to drive the vehicle safely," Wis. Stats §346.89(1). Furthermore, using a cellular telephone that is not hands-free or voice-operated is prohibited "where persons engaged in work in a highway maintenance or construction area or in a utility work area are at risk from traffic, except to report an emergency," Wis. Stats. §346.89 (4m).

Law Enforcement
High-Visibility Saturation Patrols / Enforcement
Assess Traffic Safety Impact:
>   Enforcement provides a deterrent effect upon a person's decision to break the law. Enforcement increases the perception of the risk of being arrested. This strategy will decrease the incidence of fatalities.

Linkage:
>   Enforcement of the law prohibiting speeding and inattentive driving will provide support to the state in reaching performance target C1, to decrease annual fatalities two percent from the 2014-2018 calendar year rolling average of 576 to 564.5 in 2020 and C6 by decreasing speeding fatalities by 5 percent from the 2014-2018 calendar year rolling average of 168.6 to 160.

Rational for Selecting Countermeasure/Amount:
>   BOTS uses the high-visibility enforcement task force model for all its enforcement grants, which is a proven countermeasure strategy as indicated in Countermeasures That Work, ninth edition, page 3-27 and 4-15. This countermeasure is being funded at the same level as is planned in the 2019 Highway Safety Plan. Speed and distracted driving were funded for $1,000,000 in FFY2019.

Description:
>   Encourage law enforcement agencies to make speeding and inattentive driving a priority by writing citations, sponsoring media events, and working overtime in geographical areas where speed and inattentive driving related crashes are prevalent. Plan statewide participation, encourage voluntary participation, and provide overtime funding for high-visibility enforcement task forces for these behaviors accompanied by media for a demographic. These task forces will consist of multiple law enforcement agencies that coordinate their enforcement efforts during the same time frame. Enforcement increases the perception of the risk of being ticketed. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Targeted Grantees	402	**2020-40-05-PT**	$1,000,000	$1,000,000

*Should additional dollars be available, more enforcement will occur.

Police Traffic Services – Budget Summary		
Fund/Source	ID	Amount
402	2018-40-05-PT	$1,000,000
	Total	$1,000,000

Traffic Records Improvement Plan

Justification
The federal FAST Act requires states to have a Traffic Records Coordinating Committee (TRCC) and a Traffic Records Coordinator to administer the Traffic Records Program. Members of the TRCC include owners, operators, collectors, and users of traffic records and public health and injury control data systems. The TRCC also includes representatives from organizations related to highway safety, highway infrastructure, law enforcement, adjudication, public health, EMS, and others. The group meets at least quarterly (and sometimes more often, such as when plans are being formulated). The members of the TRCC have review and approval authority with respect to state highway safety data and systems. The TRCC members make decisions concerning membership and leadership, changes to the state's multi-year Strategic Plan, and interim performance measures used to demonstrate progress.

A list of TRCC members with their names, titles, home organizations, and the core safety databases represented is in Appendix 4, which is included in the State Traffic Records Strategic Plan. Appendix 5 provides a written description of the performance measure, and all supporting data, to show quantitative improvement within the preceding 12 months of the application's due date in relation to one or more of the significant data program attributes.

States are allowed to use grant funds for making data program improvements to core highway safety databases related to quantifiable, measurable progress in any of the significant data program attributes of accuracy, completeness, timeliness, uniformity, accessibility, or integration. What follows is a list of the project concepts that the TRCC has approved for grant funding for FFY 2020. Performance measures and targets for this program are listed within the projects below.

Project Name: Modernize Chemical Test Data Storage and Workflow Processes to Improve Arrest System and Driver Record Data Quality
Core State Safety Database: Driver
Proposed Attribute of Data to Improve: Accuracy
Project Description: Easily understood data flow diagrams will be documented for how chemical test data is transferred into the Driver Record. Chemical test data transfer into the Driver Record will be enhanced.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
WisDOT ChemTest Section	405c	**2020-58-03-M5**	**$92,110**	$0

Project Name: Centralized TraCS Webservices System
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Uniformity
Project Description: The Wisconsin State Patrol would like to be able to offer a TraCS Webservices option for agencies that currently have Access and are unable to move to SQL on their own.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
WisDOT TraCS Unit	405c	**2020-58-03-M5**	**$140,000**	$0

Project Name: Reference Point (RP) Coding Automation and Enhancements Project
Core State Safety Database: Crash and Roadway
Proposed Attribute of Data to Improve: Integration
Project Description: Develop within resolve system the data fields and workflows to automate the Reference Point Coding processes to improve timeliness and accuracy of crash location data. Develop automation tools (algorithms and data) to implement real time RP coding.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
WisDOT Crash Records Unit	405c	**2020-58-03-M5**	**$50,000**	$0

Project Name: Wisconsin CODES Project
Core State Safety Database: EMS or Injury Surveillance System
Proposed Attribute of Data to Improve: Integration
Project Description: Providing CODES data to governmental, educational and non-profit organizations as requested.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
CHSRA	405c	**2020-58-03-M5**	**$129,389**	$0

Project Name: 2020 CODES Traffic Crash Linkage
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Completeness
Project Description: The number of data points, variables, and indicators related to traffic crashes will increase as the result of linking several datasets together.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Health Services	405c	**2020-58-03-M5**	**$56,744**	$0

Project Name: WisTransPortal Safety Data Warehouse Data Linkage Prototype
Core State Safety Database: Crash, Driver, EMS or Injury Surveillance System
Proposed Attribute of Data to Improve: Integration
Project Description: A foundational data modeling and system architecture planning effort is starting under the 2018 TRCC project. This project will build upon that foundation through a prototype integration of one external dataset, to be determined in coordination with the Bureau of Transportation Safety (BOTS) at the outset of the project period.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
UW-Madison TOPS Lab	405c	**2020-58-03-M5**	**$25,000**	$0

Project Name: Predictive Analytics
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Accessibility
Project Description: When completed, this project will establish a critical feedback loop between crash reporting and LEAs. It will also allow LEAs to act more proactively to prevent crashes, rather than by responding to them.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
UW-Madison TOPS Lab	405c	**2020-58-03-M5**	**$65,000**	$0

Project Name: Modernize the Fatality Analysis Reporting System (FARS)
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Timeliness
Project Description: Improve the FARS processes by taking advantage of the capabilities of the crash database and resolve system, eliminating a significant burden of manual (and often paper based) data processing and reconciliation.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit

UW-Madison TOPS Lab	405c	**2020-58-03-M5**	$100,000	$0

Project Name: Connected and Autonomous Vehicles (CAV) Safety Data
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Accuracy
Project Description: This is a foundational project to study the availability of CAV data and use cases and opportunities for that data in the traffic safety records context. It will support future TRCC project planning related to emerging CAV data and technologies.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
UW-Madison	405c	**2020-58-03-M5**	$50,000	$0

Project Name: Uniformity of Crash Reconstruction Data Preservation: Interjurisdictional Partnering
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Uniformity
Project Description: This process will ensure that an amended DT4000, with this more current data, is submitted through the TRAC's database.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Wisconsin State Patrol	405c	**2020-58-03-M5**	$208,000	$0

Project Name: Pedestrian Exposure Data. WisDOT Southeast Region Pilot Study
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Timeliness
Project Description: Improve the FARS processes by taking advantage of the capabilities of the crash database and resolve system, eliminating a significant burden of manual (and often paper based) data processing and reconciliation.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
UW Milwaukee	405c	**2020-58-03-M5**	$50,000	$0

Project Name: Using Text Data from the DT4000 to Enhance Crash Analysis
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Accuracy

Project Description: In the project, we will summarize characteristics of crash narratives (e.g., average number of words, average number of byte, most frequently used words in associated with the crash type of interest), create vocabulary for specific types of crashes; and present statistical measures such as false positive and false negative to illustrate that text mining techniques can extract pertinent information and properly classify crashes.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
UW Milwaukee	405c	**2020-58-03-M5**	**$80,000**	$0

Project Name: Comprehensive Evaluation of DT4000 Data Quality for Pedestrian and Bicycle Crashes
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Accuracy
Project Description: Provide recommendations for direct improvement on the completeness and quality of pedestrian and bicycle crash data through a thorough review and quantitative analysis of all DT4000 pedestrian and bicycle crashes reported in 2017 and 2018.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
University of Wisconsin-Milwaukee	405c	**2020-58-03-M5**	**$65,000**	$0

Project Name: Laptops
Core State Safety Database: Crash
Proposed Attribute of Data to Improve: Timeliness
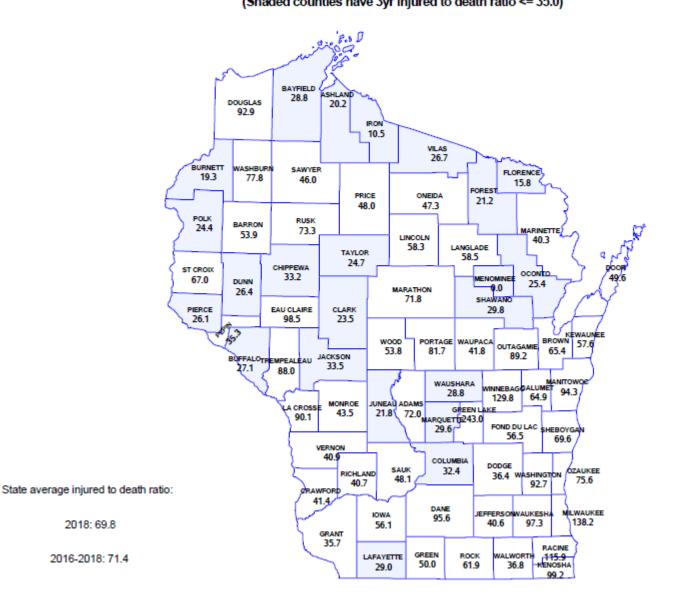**Project Description:** Provide laptops to law enforcement agencies that have new vehicles.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Various	405c	**2020-58-06-M5**	**$65,000**	$65,000

Traffic Records Improvements -- Budget Summary		
Fund	**Unique Identifier**	**Amount**
405c	**2020-58-03-M3**	**$1,111,243**
405c	**2020-58-06-M3**	**$65,000**
	Total	**$1,176,243**

EMS IMPROVEMENT PLAN

Justification
Crash survivability varies by location in the state, a result of many factors, including the speed and quality of emergency medical response and treatment. The Wisconsin Legislature has mandated the development of a statewide trauma care system to maximize local resources. However, recruitment and retention of first responders is an increasingly significant issue in rural portions of the state. Response times are longer and outcomes are worse for rural crashes, and three-year average injury-to-death ratios indicate that the areas of highest risk are predominantly rural.

2016-2018 Wisconsin Injured to Death Ratio By County
(Shaded counties have 3yr injured to death ratio <= 35.0)

State average injured to death ratio:

2018: 69.8

2016-2018: 71.4

County values shown on map:
- BAYFIELD 28.8
- ASHLAND 20.2
- DOUGLAS 92.9
- IRON 10.5
- VILAS 26.7
- BURNETT 19.3
- WASHBURN 77.8
- SAWYER 46.0
- FLORENCE 15.8
- PRICE 48.0
- ONEIDA 47.3
- FOREST 21.2
- POLK 24.4
- BARRON 53.9
- RUSK 73.3
- MARINETTE 40.3
- LINCOLN 58.3
- LANGLADE 58.5
- TAYLOR 24.7
- ST CROIX 67.0
- CHIPPEWA 33.2
- DUNN 26.4
- MENOMINEE 0.0
- OCONTO 25.4
- DOOR 49.6
- MARATHON 71.8
- SHAWANO 29.8
- PIERCE 26.1
- EAU CLAIRE 98.5
- CLARK 23.5
- KEWAUNEE 57.6
- WOOD 53.8
- PORTAGE 81.7
- WAUPACA 41.8
- OUTAGAMIE 89.2
- BROWN 65.4
- BUFFALO 27.1
- TREMPEALEAU 88.0
- JACKSON 33.5
- WAUSHARA 28.8
- WINNEBAGO 129.8
- CALUMET 64.9
- MANITOWOC 94.3
- LA CROSSE 90.1
- MONROE 43.5
- JUNEAU 21.8
- ADAMS 72.0
- GREEN LAKE 243.0
- MARQUETTE 29.6
- FOND DU LAC 56.5
- SHEBOYGAN 69.6
- VERNON 40.9
- COLUMBIA 32.4
- DODGE 36.4
- WASHINGTON 92.7
- OZAUKEE 75.6
- RICHLAND 40.7
- SAUK 48.1
- CRAWFORD 41.4
- IOWA 56.1
- DANE 95.6
- JEFFERSON 40.6
- WAUKESHA 97.3
- MILWAUKEE 138.2
- GRANT 35.7
- RACINE 115.9
- LAFAYETTE 29.0
- GREEN 50.0
- ROCK 61.9
- WALWORTH 36.8
- KENOSHA 99.2

Note that there was no data available from Menominee County.

Performance Goals and Measures

Injury to Death Ratios	
2016-2018 Statewide 3-year average baseline	71.4 to 1
2018 Actual	69.8 to 1
2020 Goal	**74.9 to 1**

The safety belt use rate in personal injury and fatal crashes will increase.	
2000 Statewide Baseline	65.4%
2018 Statewide Usage	89.3%
2020 Goal	**93.7%**

It is important to improve traffic crash survivability and injury outcome by improving the availability, timeliness, and quality of pre-hospital care, especially in high-risk rural areas of the state. Staff will work with rural counties that have a low injury-to-death ratio to provide funding for training and equipping local first responders.

Publicity and Outreach – Emergency Response

Assess Traffic Safety Impact:
> Emergency response coordination and training will mean improved outcomes for occupants and persons involved in crashes.

Linkage:
> Funding publicity and outreach will aid the state in reaching all performance targets.

Rationale for Selecting Countermeasure/Amount:
> A willing and able emergency response program is important for timely and expedient health care. The Department of Health Services (DHS) will collaborate with us on this project and expect to spend $50,000 on the effort.

Description:
> With the Department of Health Services and the Wisconsin Division of the American Trauma Society (WATS), the Bureau of Transportation Safety will develop an EMS plan with a focus on recruitment and retention of first responders, and to educate the general population and emergency responders about the state Trauma System, and to review and duplicate highway safety materials for distribution locally by EMS/trauma care personnel. We planned to expend this amount in the HSPs of previous years, and we plan to expend this amount in fiscal year 2018. Distance to trauma cente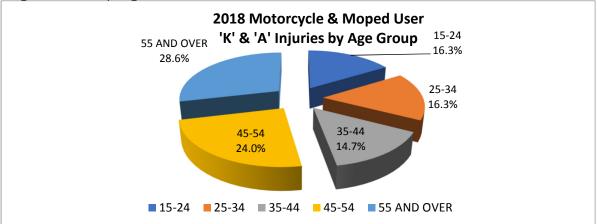rs has been proven to have a significant role affecting the severity of injuries after a crash. This project will focus on areas with fewer ambulance services and will focus on recruitment and retention of EMTs in those areas. This will impact traffic safety by providing better EMS services in remote areas, increasing response, which will decrease the likelihood of a relatively minor traffic incident resulting in a fatality.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-60-02-EM**	$50,000	$0

Rural Emergency Response Programs, Equipment & Training

Rationale for Selecting Countermeasure/Amount:

A willing and able emergency response program is important for timely and expedient health care. The Department of Health Services (DHS) will collaborate with us on this project and expect to spend $50,000 on the effort.

Description:

Fund equipment and training for initial or first-time first responder groups in targeted high-risk areas. Connect returning military service personnel with local EMS providers. We planned to expend this amount in the HSPs of previous years, and we plan to expend this amount in fiscal year 2018.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-60-03-EM**	$50,000	$0

EMERGENCY MEDICAL SERVICES – BUDGET SUMMARY			
402	**2020-60-02-EM**	**PI&E**	**$50,000**
402	**2020-60-03-EM**	**Training – Equipment**	**$50,000**
	Total		**$100,000**

Motorcyclist Safety Program

Program Justification
In 2018, 563 motorcyclists or moped users were seriously injured and 83 were killed in 2,399 reported traffic crashes. Over the prior five years, 82% of motorcycle/moped crashes resulted in fatality or injury. In 2018, if you were a rider in a reportable motorcycle or moped crash, you were most likely injured—only 394 motorcycle and moped crashes did not result in injury. Most of these injuries are to people over the age of 35 years old. The chart below shows that 67% of the motorcyclist and moped user fatalities and incapacitating injuries occur to individuals 35 years old and older. See performance measures C7 and C8 in the introduction for performance measures and targets for this program.

Riding motorcycles and mopeds for most riders is a seasonal endeavor. Rarely does Wisconsin have a warm enough winter for even the most avid rider to continue around-the-year use. Motorcyclist fatalities nonetheless accounted for 14.4% of total fatalities on Wisconsin roads in 2018. The following graph illustrates when those fatalities occurred and that a large share of motorcyclist fatalities typically occur during summer months.

Percentage of Riders in Fatal Crashes Not Wearing a Helmet 2009-2018									
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
65%	77%	92%	78%	76%	71%	83%	79%	66%	63%

The chart above indicates that the percentage of riders in fatal crashes that chose not to wear a helmet remains high.

Highway Safety Office Program Management

Assess Traffic Safety Impact:

Program management is an essential component to improve traffic safety in the state of Wisconsin. This position functions within the Bureau of Transportation Safety to work with partner agencies including but not limited to law enforcement, technical colleges, motorcycle dealerships, private business, and advocacy groups, and other BOTS staff to coordinate traffic safety and rider education grants, impairment enforcement and awareness efforts to reduce fatalities and injuries among motorcycle riders as indicated by crash and injury data.

Linkage:

State transportation safety funds are used to support the management of the Wisconsin Motorcyclist Safety funds, which will benefit the state in reaching performance measure C7, to decrease annual motorcyclist fatalities five percent from the 2013-2018 average of 79.4 to 75 in 2020.

Rationale for Selecting Countermeasure/Amount:

This position is essential for continuing coordination of Wisconsin's strong rider education program, associated grants, and outreach efforts. This countermeasure strategy will help Wisconsin increase use of rider education resources and motorist awareness of motorcyclists. This will in turn decrease fatalities, including those of un-helmeted motorcyclists. The same amount of expenditures is planned in 2020 as that which were indicated in the 2019 Highway Safety Plan.

Description:

This State Program Manager position will coordinate, plan, and manage the Wisconsin Motorcyclist Safety Program (WMSP), to include assisting the Wisconsin rider education program and WMSP through continued clerical support to training sites. This activity will include wage and fringe, data processing costs, materials and supplies, training and travel, printing and postage, and National Association of State Motorcycle Safety Administrator Membership Dues.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	State	**2020-79-01-WI**	$85,000	$0

Motorcycle Rider Training/Motorcycle Rider Education and Training – Federal and State Funded

Assess traffic safety impact:

Licensing requires motorcyclists to have basic knowledge of safe operation of a motorcycle along with demonstrating basic knowledge of traffic laws. With the

additional knowledge gained in rider education classes, rider education students gain awareness of potential traffic hazards, and gain the physical skills necessary for safe operation of a motorcycle. Students also gain knowledge of how to mitigate risks of riding through use of proper gear and the effects of impairment which can lead to fatal crashes. Rider education programs aim to teach motorcycle control skills, recognize potential road hazards, encourage use of conspicuous safety gear, and encourage in-depth self-assessment of rider risk and limitations.

Linkage:

Providing funding for motorcycle rider education and training will aid the state in attaining performance target C8, to decrease annual un-helmeted motorcyclist fatalities five percent from the 2013-2017 average of 58.6 to 56 in 2020.

Rationale for Selecting Countermeasure/Amount:

This countermeasure is specifically allowed under 23 CFR 1300.25(l)(1)(i),(ii), and (iii) and will help Wisconsin increase use of the latest rider education resources to increase licensing among riders. This countermeasure strategy will remain funded at the same levels as indicated in the 2019 Highway Safety Plan.

Description:

The Wisconsin Motorcyclist Safety Program/Rider Education Program will administer classroom and hands-on rider training programs through the Wisconsin Technical College System (WTCS)/funded training sites as well as private/non-funded training sites, including the Harley-Davidson Riding Academy sites that meet the MSF and WMSP requirements for basic motorcycle/scooter, new, seasoned, and advanced motorcycle riders. The Wisconsin Motorcyclist Safety Program will continue rider education courses to address novice, intermediate, and seasoned motorcyclists. It will also fund the Motorcycle Safety Foundation (MSF) Basic RiderCourse curriculum and the MSF Basic Rider Course-2. In addition to providing valuable safety information to students, these courses allow participants to receive their class M license without being required to take the on-road test with the Division of Motor Vehicles. This project also includes professional development of RiderCoach Trainers and train-the-trainer staff including curriculum updates, motorcyclist safety conferences and workshops. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405f	**2020-72-04-M9**	$30,000	$30,000
BOTS	State	**2020-79-04-WI**	$463,000	$463,000

Motorcycle Training Equipment

Assess traffic safety impact:

Better educated/trained drivers should result in a reduction of crashes.

Linkage:

Providing funding for motorcycle rider education and training will aid the state in attaining performance target C7, to decrease motorcyclist fatalities 5 percent from the 2014-2018 calendar year rolling average of 78.2 to 74 by December 31, 2020.

Rationale for Selecting Countermeasure/Amount:

This countermeasure is specifically allowed under 23 CFR 1300.25(l)(1)(ii)(A) and will help Wisconsin increase use of the latest rider education resources to increase licensing among riders. This countermeasure strategy will remain funded at the same levels as indicated in the 2019 Highway Safety Plan.

Description:

BOTS will purchase training motorcycles, three-wheel motorcycles, trikes, scooters, traffic (motorcycle) simulators, or other motorcycle trainers or traffic simulators. This activity will fund new training and support materials for motorcycle awareness. Providing necessary training vehicles will complement and enhance the Rider Education Program. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405f	**2020-72-06-M9**	$60,000	$60,000

Alcohol Impairment: Detection, Enforcement, and Sanctions/Motorcycle Operation under the Influence of Alcohol or Other Drugs Law Enforcement

Assess traffic safety impact:

Impairment has been a significant contributing factor to fatal crashes among motorcyclists. Enforcement will occur to reduce the number of impaired motorcyclists on the roadways.

Linkage:

Providing highway safety funds to address impaired operation of a motorcycle will help the state to reach performance target C7, to decrease motorcyclist fatalities 5 percent from the 2014-2018 calendar year rolling average of 78.2 to 74 by December 31, 2020.

Rationale for Selecting Countermeasure/Amount:

Enforcement of the state's OWI laws among the motorcycling community will help Wisconsin decrease the number of fatal crashes among motorcyclists. An increase in funding toward this countermeasure strategy is planned this year since BOTS will expand these activities into new areas. This countermeasure strategy is found on page 5-13 of the ninth edition of Countermeasures That Work.

Description:

BOTS will encourage participation in impaired driving high-visibility enforcement (HVE) and deterrence activities where there is the highest occurrence of motorcyclist crashes and fatalities involving motorcyclists impaired by drugs or alcohol. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-70-05-MC**	$70,000	$35,000

Motorcyclist Awareness Program

Assess traffic safety impact:

The ability to communicate directly with individual constituents allows for targeted discussions related to misconceptions and challenges related to motorcycles on the roadway. This includes topics such as right of way collisions, conspicuity, appropriate safety gear, rider education opportunities, and mechanical issues related to motorcycles that can present safety hazards to all roadway users. Increasing motorist awareness of motorcyclists with "Share the Road" and "Watch for Motorcyclists" messaging at key times during the riding season, along with the consistent messaging that the specialty license plates provide will result in a safer riding environment for motorcyclists, leading to fewer motorcycle crashes.

Linkage:

Providing federal highway safety funding for outreach to the motorcyclist community about safe riding as well as spending state revenue generated from the sale of specialized Harley-Davidson license plates for automobiles and trucks will help the state reach performance target C7, to decrease motorcyclist fatalities 5 percent from the 2014-2018 calendar year rolling average of 78.2 to 74 by December 31, 2020.

Rationale for Selecting Countermeasure/Amount:

This countermeasure strategy will help Wisconsin increase use of rider education resources, awareness of motorcyclist responsibilities for safe riding strategies, and motorist awareness of motorcyclists to decrease fatalities, including un-helmeted motorcyclists. This countermeasure strategy will also help Wisconsin increase motorist awareness of motorcyclists to decrease motorcyclist fatalities. State expenditures in 2017 were $175,656.66 and we expect to obligate the same amount of federal funds in 2020.

Description:

Continue expansion of the role the mobile outreach program plays and the number of activities it participates in to promote all aspects of motorcyclist awareness, safety, and rider education. Offer a variety of motorist and motorcyclist-related training and awareness activities as well as promote appropriate Class M

Endorsement for owners of all on-road motorcycles. Placement and promotion of SMARTrainers. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol. The state will also pay for paid media with revenue generated from the Harley-Davidson plate as indicated.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-70-04-MC**	$200,000	$0
BOTS	State 535	**2020-79-07-WI**	$180,000	$0

Program Evaluation

Assess traffic safety impact:

Proper delivery of the approved curriculum materials will ensure that students gain additional knowledge of awareness of potential traffic hazards and gain the physical skills necessary for safe operation of a motorcycle.

Linkage:

Spending motorcyclist safety funds on program evaluation will help the state in reaching performance target C7, to decrease motorcyclist fatalities 5 percent from the 2014-2018 calendar year rolling average of 78.2 to 74 by December 31, 2020.

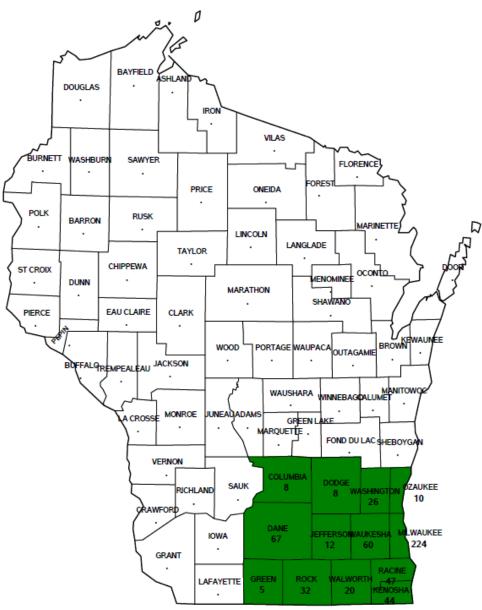Rationale for Selecting Countermeasure/Amount:

This countermeasure strategy will help Wisconsin increase proper use of rider education resources, motorist awareness of motorcyclists to decrease fatalities, including un-helmeted motorcyclists.

Description:

BOTS will evaluate the effectiveness of grant funding provided as well as ensure accurate curriculum implementation and adherence to all policies and procedures at all rider education sites across the state. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-70-09-MC**	$30,000	$0

WISCONSIN
2018 Motorcycle Crashes Involving Another Motor Vehicle
Target Regions for FFY 2020

Communications and Outreach Plan

The Wisconsin Motorcyclist Safety Program improves motorist awareness of the presence of motorcyclists on or near its roadways and promotes safe driving practices that avoid injuries to motorcyclists.

In 2017, the most recent year finalized crash data are available, the year required per 23 C.F.R. §1300.25(f)(2), Wisconsin experienced 1,082 motorcycle crashes involving a motorcycle and another motor vehicle. The highest number of motorcycle crashes happened in the southeastern portion of the state where most of the population resides. This area is being targeted in 2020 for numerous activities intended to reduce crashes

and fatalities. Although the southeast region is being targeted for programming, events and activities of the Wisconsin Motorcycle Safety Program will happen throughout the state. Activities will include:

- Promoting motorcycle awareness and provide information regarding motorcycles and motorcyclists to the general motoring public.
- Meeting members of the motorcycling community face to face to promote motorcycle safety, motorcycle training opportunities, and motorcyclist risk reduction techniques.

Wisconsin has a long history of promoting motorcyclist awareness. In 1990, the Wisconsin DOT and the Wisconsin Motorcyclist Safety Program established the Wisconsin Motorcycle Safety Advisory Council (MoSAC), which reports to the Department of Transportation Secretary. The council is comprised of key members of the motorcycling community as well as law enforcement, highway engineering, rider education, and others. The council typically meets on a quarterly basis, or more often when needed. In recent years the primary focus of the council has been to establish how to reduce motorcyclist fatalities and promote motorist awareness

Since the early spring of 2009, WMSP and BOTS staff members have been conducting an in-depth analysis of all Wisconsin motorcyclist fatalities to establish an accurate profile of those motorcyclists involved in fatalities and establish appropriate countermeasures to reduce motorcyclist crashes and fatalities. To that end, BOTS staff members study and analyze MV4000 Crash Reports, corresponding narratives, coroner reports, as well as crash reconstruction documents. Performing this analysis over many years provides critical information regarding where these crashes and fatalities most often occur.

To reduce motorcyclist crashes and fatalities, beginning in 2010 and continuing through 2020, the Wisconsin Motorcyclist Safety Program is continuing to build its partnership with the Motorcycle Safety Foundation in a concerted effort to provide a variety of appropriate levels of rider education to address all members of the motorcycling community. The overall function of the rider education program is to not only improve the skill level of all participating motorcyclists, but to influence motorcyclists' attitudes, behaviors, choices, and decision making in a positive manner to reduce crashes and fatalities.

Continuing in 2020, and in partnership with ABATE and the Department of Tourism, an expanded campaign is in place to further promote motorcycle awareness to the general motoring public and motorcycle safety for motorcyclists using radio and television PSAs in high fatality rate target areas and throughout the state. In addition, motorcycle awareness promotional materials are being posted in highly-traveled areas, information centers, rest areas, and businesses that cater to motorcyclists. Further, numerous electronic billboards have been selected in strategic locations and are being employed to

remind the general motoring public of the presence of motorcyclists on Wisconsin roadways.
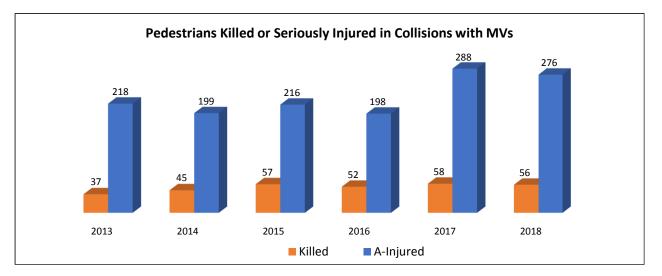
Through analysis of motorcycle crashes, it is evident that motorcycle awareness on the part of the general motoring public is a key component to reducing crashes and fatalities. A key issue that continues to be a contributing factor to multiple vehicle crashes is the fact that motorists claim to have not seen the motorcyclist. As a result, and via an ongoing campaign through WISDOT media efforts, motorists are encouraged to "look twice" for motorcyclists as they enter the driver's field of vision, change lanes, or approach intersections. In addition, motorists are also continually encouraged to "share the road" with motorcyclists.

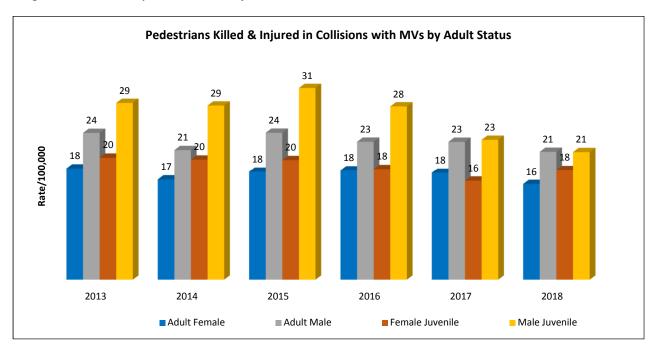| Motorcyclist Safety Program -- Budget Summary		
State	2020-79-01-WI	$85,000
405f	2020-72-04-M9	$30,000
State	2020-79-01-WI	$463,000
405f	2020-72-06-M9	$60,000
402	2020-70-05-MC	$70,000
402	2020-70-04-MC	$200,000
State	2020-79-07-WI	$180,000
402	2020-70-09-MC	$30,000
	Total	$1,118,000

Pedestrian and Bicyclist Safety Program

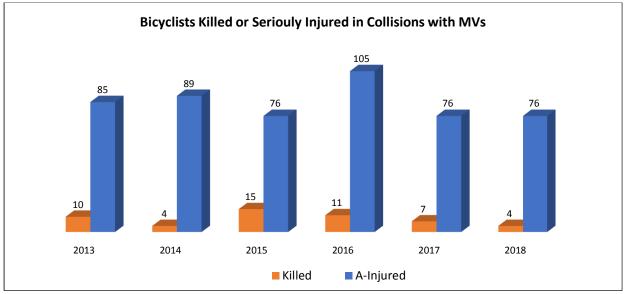**Program Justification, Performance Goals, and Measures**

In 2018, 56 pedestrians died in pedestrian-motor vehicle crashes. As illustrated in the graph, pedestrians killed or incapacitated in 2018, totaled 332 people. This represents almost a 33% increase from the 250 pedestrians killed or incapacitated in 2016.
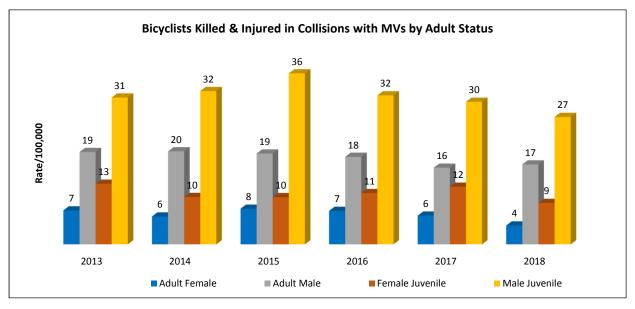

There were 1,408 pedestrian injuries reported in 2018, which is a 19% increase from the 1,181 pedestrian injuries reported in 2016. Adult men and women make up the largest number of pedestrians injured in collisions.

In 2018, four bicyclists died in bicycle-motor vehicle crashes. As illustrated in the graph below, bicyclists killed or incapacitated in 2018 totaled 80 people. This represents a 14% decrease from the most recent five-year average.
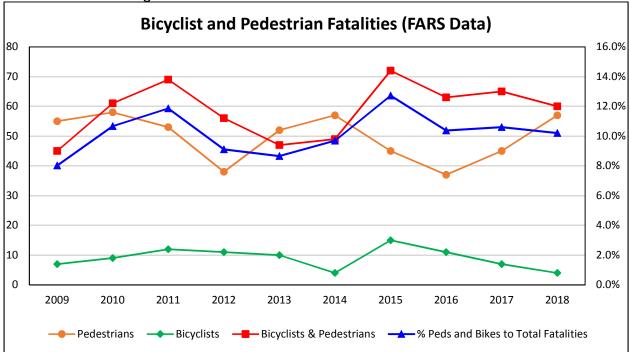
Bicyclists Killed or Seriouly Injured in Collisions with MVs

Year	Killed	A-Injured
2013	10	85
2014	4	89
2015	15	76
2016	11	105
2017	7	76
2018	4	76

There were 755 total bicyclist injuries reported in 2018, which is a 12% decrease from the most recent 5-year average. Adult and juvenile males make up the largest number of bicyclists injured in collisions. Male juveniles are clearly overrepresented in injuries across all years in the chart below.

Bicyclists Killed & Injured in Collisions with MVs by Adult Status

Rate/100,000

Year	Adult Female	Adult Male	Female Juvenile	Male Juvenile
2013	7	19	13	31
2014	6	20	10	32
2015	8	19	10	36
2016	7	18	11	32
2017	6	16	12	30
2018	4	17	9	27

Performance measures and targets for this program include measure C10 and measure C11 in the introduction.

There were 56 pedestrian fatalities and four bicyclist fatalities for a combined total of 60 non-motorist fatalities in 2018. Since there were 588 total fatalities using FARS data,

10.2% of the fatalities in 2018 were non-motorists, so Wisconsin doesn't qualify for section 405h funding.

Bicyclist and Pedestrian Fatalities (FARS Data)

State Funded Bicyclist and Pedestrian Program Manager

Assess Traffic Safety Impact:

This state program manager position will positively impact traffic safety in Wisconsin by coordinating, planning, and managing the bicycle and pedestrian program. Goals that will have a positive impact on traffic safety in Wisconsin include enhancing volunteer agency participation, increasing community involvement, working with community organizations and non-profit programs to expand activities and efforts, and encouraging state and local input into the HSP development process.

Linkage:

Funding program management and strategic planning for the program will aid the state in reaching performance targets C10 and C11, to decrease annual pedestrian and bicyclist fatalities five percent from the 2014-2018 calendar year rolling average of 53.6 and 8.2 (respectively), to 51 and 8 in 2020.

Rationale for Selecting Countermeasure/Amount:

Hiring a full-time pedestrian and bicyclist coordinator with state funds illustrates our commitment to non-motorist safety.

Description:

This activity will fund wage, fringe, data processing, materials and supplies, training and travel, printing, and postage for the work of this position. This position will work with Regional Program Managers, Law Enforcement Liaisons, and law enforcement agencies of all sizes to coordinate efforts, encourage safe and effective high-visibility enforcement and participation in mobilizations.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	562	**2020-89-01-WI**	**$87,000**	$0

Training and Outreach –

Teaching Safe Bicycling

Assess Traffic Safety Impact:

      The impact of this project will increase knowledge of safe bicycling behaviors among children. The anticipated impact of this countermeasure strategy is a decrease in non-motorized traffic fatalities.

Linkage:

      Assist the state in attaining performance targets C10 and C11, to decrease annual pedestrian and bicyclist fatalities five percent from the 2014-2018 calendar year rolling average of 53.6 and 8.2 (respectively), to 51 and 8 in 2020.

Rational for Selecting Countermeasure/Amount:

      This is a Countermeasure That Works in the ninth edition on page 9-19. We planned to expend this amount in the HSPs of previous years, and we plan to expend this amount in fiscal year 2020.

Description:

      Provide Teaching Safe Bicycling (train-the-trainer) style workshops for participants interested in providing youth cycling instructions. Attendees frequently include teachers, non-profit organizations, law enforcement, and youth groups. The goal is for attendees to host youth cycling instruction and bicycle rodeos following participation in this workshop. Workshop instruction is led by instructors of the Wisconsin Bicycle Federation, but the course administration is managed by the Pedestrian/Bicycle Safety Program Manager. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Various local governments	402	**2020-80-03-PS**	$10,000	$10,000

Bicycle Rodeo/ Walk Audit/ Pop-Up Demo/ and Walking School Bus Supplies

Rational for Selecting Countermeasure/Amount:

      This is a Countermeasure That Works in the ninth edition on page 9-19. This would provide 10 applicants with $500 for supplies.

Description:

      To have a successful event, it is important that hosts have supplies. Since many instructional courses are sponsored by schools, police, or non-profit organizations, it might be difficult for these entities to host an event due to lack of funding to purchase the needed supplies. In most cases, reusable kits can be assembled for a few hundred dollars. This activity will provide up to 20 grant

applicants with a maximum of $500 for supplies. This activity will improve highway safety by providing advocates with supplies they need to advocate for or to teach safe walking and biking in their communities.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Various local governments	402	**2020-80-06-PS**	$5,000	$3,000

Pedestrian Safety Workshop

Rational for Selecting Countermeasure/Amount:

This project is a Countermeasure That Works on page 8-30 of the ninth edition. This project will have an impact on highway safety with a reduction of crashes and injuries for pedestrians in pedestrian zones that are properly designed and implemented.

Description:

This is a one-day workshop that will give participants tools for teaching safe walking and developing pedestrian safety plans in their communities. The goal for this project is for attendees to host a walking event that teaches safe walking and/or addresses motorist behavior, perform a walk audit, or facilitate a pop-up demonstration project in an area of concern like a school or business district.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Milwaukee et al	402	**2020-80-04-PS**	$10,000	$10,000

MilWALKee WALKS

Rational for Selecting Countermeasure/Amount:

This project will impact traffic safety with a reduction in crashes and injuries among pedestrians in the target area.

Description:

MilWALKee Walks is a safety coalition that aims to increase yielding to pedestrians at marked and unmarked crosswalks in Milwaukee. Milwaukee leads the state in terms of the number of pedestrian crashes and the number of fatal pedestrian crashes. This grant would allow for outreach to minority communities and organizing around intersections where there are the highest pedestrian crash numbers. Materials developed for this project would be posted electronically and made publicly available. MilWALKee Walks is managed and developed by the Wisconsin Bike Federation.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit

Milwaukee	402	**2020-80-04-PS**	$30,000	$10,000

UW-Milwaukee Pilot Study

Rational for Selecting Countermeasure/Amount:

There is little information on exposure for pedestrians and bicyclists.

Description:

This pilot study would research and analyze interactions between pedestrian, bicyclist and motor vehicles on University of Wisconsin-Milwaukee (UW-M) campus grounds. This pilot study will be a partnership project with UW-M and UW-M Campus Police. This study utilizes UW-M's vast network of campus intersection cameras. Researchers will review intersection footage and assess interactions. This study may guide how to better utilize safety efforts for pedestrians and bicyclists. This study also will establish a rate of near-miss crashes between pedestrian, bicyclists, and motor vehicles.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
UW Milwaukee	402	**2020-80-09-PS**	$20,000	$0

Designing for Pedestrian Safety

Rational for Selecting Countermeasure/Amount:

> Currently, two courses cost approximately $13,000. This is a continuing project that has demonstrated success in the past. This project will have a positive impact on highway safety by reducing exposure through environmental countermeasures.

Description:

> Provide four Designing for Pedestrian Safety or Designing for Pedestrian Safety Accessibility workshops in Wisconsin. The workshops provide engineers, planners, designers, and advocates from the Wisconsin Department of Transportation, and employees from local government with the knowledge to improve safety of the pedestrian environment. Increase the number of course offerings from two to four.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
Various	402	**2020-80-03-PS**	$30,000	$30,000

High-Visibility Enforcement/Drive Sober or Get Pulled Over Mobilization

Assess Traffic Safety Impact:

> This project will have a positive impact on highway safety by increasing compliance with traffic laws that affect pedestrians, bicyclists, and motorists.

Linkage:

> Assist the state in attaining performance targets C10 and C11, to decrease annual pedestrian and bicyclist fatalities five percent from the 2014-2018 calendar year rolling average of 53.6 and 8.2 (respectively), to 51 and 8 in 2020.

<u>Rational for Selecting Countermeasure/Amount</u>:

This project is a Countermeasure That Works on pages 8-38 and 9-27 of the ninth edition. Increase funding from $100,000 in prior years to $120,000.

<u>Description</u>:

Collaborate with law enforcement agencies to provide, improve the quality, and increase the number of enforcement initiatives that impact pedestrians and bicyclists. Enforcement should focus on behaviors that lead to crashes—failure to yield, red light violations, speeding in advance of marked and unmarked crosswalks, sudden pedestrian movement, and bicyclist violation of stop signs and stop lights. These grants should only be used to supplement existing enforcement related to pedestrian and bicyclist safety. Additionally, agencies targeted for this training should complete specific training related to pedestrian/bicyclist law enforcement. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
LEAs	402	**2020-80-05-PS**	$260,000	$260,000

Wisconsin Pedestrian/Bicycle Law Enforcement Training

<u>Rational for Selecting Countermeasure/Amount</u>:

This project is a countermeasure that will make the Countermeasures That Work on pages 8-38 and 9-27 of the ninth edition more effective by providing law enforcement with the training necessary to conduct that enforcement.

<u>Description</u>:

Host four two-day trainings, four one-day trainings, and completely overhaul the Wisconsin Pedestrian and Bicycle Law Enforcement Training Manual, which became out-of-date in 2009. Law enforcement professionals require more training related to laws for bicycle riders and pedestrians as well as laws that apply to operators of motor vehicles that impact pedestrians and bicyclists. Law enforcement officers cannot enforce laws if they do not completely understand them, and as a result traffic officers currently cannot optimally control traffic involving non-motorists and prevent crashes involving pedestrians and bicyclists. Wisconsin meets its requirements for match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
LEAs	402	**2020-80-03-PS**	$30,000	$30,000

Pedestrian and Bicyclist Safety Program – Budget Summary		
State	2020-89-01-WI	$87,000
402	2020-80-03-PS	$70,000
402	2020-80-04-PS	$40,000
402	2020-80-05-PS	$260,000
402	2020-80-06-PS	$5,000
402	2020-80-09-PS	$20,000
	Total	$482,000

Community Traffic Safety Outreach and Media Programs

Outreach Program Management
Assess Traffic Safety Impact:

Law Enforcement Liaisons (LELs) are a proven measure to improve traffic safety by supporting law enforcement agencies and conducting outreach to them. The Wisconsin LEL program is modeled after the recommendations of the national LEL program. The LELs, along with the Regional Program Managers (RPMs) will coordinate the community traffic safety program by conducting outreach with local partners. The RPMs and LELs develop safety initiatives to reduce fatalities and injuries among high-risk groups as indicated by crash and injury data trends and they lead WisDOT efforts to increase participation of law enforcement agencies in quarterly Traffic Safety Commissions in each County in Wisconsin. In addition, the RPMs assist grantees in completing grant applications, activity reports, reimbursement requests, and ultimately monitor federal grants.

Linkage:

Spending funds on management of the community traffic safety program will be of service to the state of Wisconsin to help it achieve performance target C1, to decrease traffic fatalities 2 percent from the 2014-2018 calendar year rolling average of 576 to 564.5 by December 31, 2020.

Rationale for Selecting Countermeasure/Amount:

Participation in TSCs is essential for outreach to LEAs for WisDOT policy and programs and is key to the state implementation of its Strategic Highway Safety Plan. Participation by law enforcement agencies also allows WisDOT to have a better understanding of the issues in traffic safety in local communities. Costs are explicitly allowed under 402 and are an effective countermeasure strategy. Total expenditures in 2018 for the planned activities under this countermeasure were $378,274.42.

Description:

BOTS has two Regional Program Managers (RPMs) and four contracted Law Enforcement Liaisons (LELs) that coordinate, plan, and manage the state Community Traffic Safety Program. Wage and fringe, data processing costs, materials and supplies, training, travel, printing, and postage. Continue to provide leadership, training, information, and technical assistance as liaisons between law enforcement agencies, organizations, and non-profit programs involved in community traffic safety and WisDOT.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-90-01-CP**	$450,000	$0

Grant Management System
Assess Traffic Safety Impact:

An electronic grant management system allows BOTS to efficiently manage its programs and it provides for better subrecipient monitoring. Increased

efficiencies in program management allow BOTS to focus greater resources on activities that promote traffic safety in local communities.

Linkage:

Allocating funds to an electronic grant management system allows BOTS to direct resources to all grantees, which will aid the state in reaching performance target C1, to decrease traffic fatalities 2 percent from the 2014-2018 calendar year rolling average of 576 to 564.5 by December 31, 2020

Rationale for Selecting Countermeasure/Amount:

An electronic grant management system is necessary to support the BOTS's traffic safety programs throughout the state. Approved reimbursements in 2018 were $78,362.29.

Description:

This project funds the electronic grants management system, Wise Grants, which manages the grants distributed by BOTS. This system previously received a commendation from NHTSA after a management review. BOTS has been communicating with the Wise Grants vendor to improve processes and reporting. Those changes are expected to increase costs, but, when coupled with the state's new business and accounting system, will help track expenditures better.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-90-04-CP**	$90,000	$30,000

Governor's Conference on Highway Safety and Law Enforcement Luncheon

Assess Traffic Safety Impact:

The Governor's Conference on Highway Safety is an opportunity to network with law enforcement and other safety stakeholders and partners. Sharing best practices, discussing progress, new and emerging initiative, and coordination of efforts is top priority. Input from local partners into the state's programs and plans is key to implementing the Strategic Highway Safety Plan and formulating our Highway Safety Plan application.

Linkage:

Providing funding for the conference and the luncheon enables traffic safety stakeholders around Wisconsin to meet and learn from each other, which will aid the state in reaching performance target C1, to decrease traffic fatalities 2 percent from the 2014-2018 calendar year rolling average of 576 to 564.5 by December 31, 2020

Rationale for Selecting Countermeasure/Amount:

The conference is a culmination of the entire outreach program. When groups outside of WisDOT support its messaging that aims to decrease traffic fatalities on our roads, it benefits the department's program. The amount of funding for this countermeasure strategy is the same as it was in 2019.

Description:

This planned activity funds the conference as well as the recognition luncheon for law enforcement. The conference is a meeting of current and future partners. The conference has improved and will continue to improve inter-agency

cooperation and collaboration. It will help the development of multi-jurisdictional HVE task forces across the state. No equipment purchased with this activity will be major since all equipment will have an acquisition cost of less than $5,000. Wisconsin meets its match with traffic enforcement conducted on straight time by the Wisconsin State Patrol.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-90-06-CP**	$375,000	$200,000

Public Information and Education – Occupant Protection
<u>Assess Traffic Safety Impact</u>:
Promoting occupant protection will help to increase seat belt usage among low-belt use groups.
<u>Linkage</u>:
Wisconsin's occupant protection outreach plan will assist the state in reaching a usage rate of 91.9% by December 31, 2020.
<u>Rationale for Selecting Countermeasure/Amount</u>:
The support of high visibility enforcement through public information is specifically allowed under 23 CFR §1300.21(f)(1)(i) and it is also an effective countermeasure that works on pages 2-22, 2-23, and 2-30 of the ninth edition.
<u>Description</u>:
BOTS will review and update information regarding child passenger safety, safety belt materials, and other items in both Spanish and English. We will create state-specific occupant protection message using CIOT, Zero in WI, and messages targeted at the unbuckled motor vehicle occupant. BOTS will partner with teen safe driving programs to promote young adult driver seat belt use. We will review and update web-based information and materials for accuracy and to reduce printing and duplication costs. This will also encompass the rollover convincer project.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405b	**2020-25-02-M2**	$200,000	$100,000

Public Information and Education – Impaired Driving
<u>Assess Traffic Safety Impact</u>:
Promoting impaired driving programs will help to decrease impaired driving among the traveling public.
<u>Linkage</u>:
Wisconsin's impaired driving outreach plan will assist the state in decreasing alcohol impaired driving fatalities 5 percent from the 2014-2018 calendar year rolling average of 125.6 to 119 by December 31, 2020.
<u>Rationale for Selecting Countermeasure/Amount</u>:

The support of high visibility enforcement through public information is specifically allowed under 23 CFR §1300.23(j)(1)(vi) and it is also an effective countermeasure that works on pages 1-27 and 1-54, 1-57, and 1-58 of the ninth edition.

Description:

Continue to develop a statewide public information and education campaign to reduce impaired driving injuries and fatalities based on NHTSA's goals and objectives utilizing various methods such as the web, print, and TV. Contractual services for product and placement, printing, and postage. Collaborate with partners, revise and update all information, identify specific needs, and target information to various audiences including Spanish speaking customers. Use the website more to reduce production costs. Develop and disseminate best practices information. Collaborate with community prevention organizations to assist them in developing successful evidence-based prevention programs.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	405d	**2020-31-02-M5**	$250,000	$150,000

Media – Motorist Awareness and Motorcyclist Conspicuity

Assess Traffic Safety Impact:

Promoting awareness will help to decrease motorcyclist crashes among the traveling public.

Linkage:

Wisconsin's motorcyclist and motorists outreach plan will assist the state in decreasing motorcyclist fatalities 5 percent from the 2014-2018 calendar year rolling average of 78.2 to 74 by December 31, 2020.

Rationale for Selecting Countermeasure/Amount:

The support of public information for motorists and motorcyclists is an effective countermeasure that works on pages 5-19 and 5-20 of the ninth edition.

Description:

This will fund media campaigns that address "May is National Motorcycle Safety Awareness Month" and in Wisconsin "May is Motorcycle Awareness Month." These campaigns will promote motorists' awareness of motorcyclists in a campaign to "look twice for motorcycles" via radio and television PSAs, posters, and other means.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-70-07-MC**	$50,000	$0

Public Information and Education – Pedestrian and Bicyclist

Assess Traffic Safety Impact:

Promoting awareness will help to decrease non-motorist crashes among the traveling public.

Linkage:

Wisconsin's bicycle and pedestrian outreach plan will assist the state in reducing pedestrian fatalities 5 percent from the 2014-2018 calendar year rolling average of 53.6 to 51 by December 31, 2020 and reducing bicyclist fatalities by one from the 2014-2018 calendar year rolling average of 8.2 to 8 by December 31, 2020.

Rationale for Selecting Countermeasure/Amount:

The support of high visibility enforcement through public information is an effective countermeasure that works on pages 8-29, 9-16, and 9-26 of the ninth edition.

Description:

Work with partners to keep information up-to-date and add information to WisDOT website. Continue to work with the variety of Drivers Education Programs to ensure beginning drivers receive the correct pedestrian/bicycle training. Additional information will be produced in 2020 as well as updates to training programs. The impact of this project will help to ensure that young drivers receive the necessary information to share the road with pedestrians and bicyclists. Continue to develop and educate all people involved in pedestrian/bicyclist safety. Work in cooperation with Share and Be Aware to develop new training/educational materials. This project will help to ensure that bicyclists get up to date information regarding rules of the road.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-80-02-PS**	$20,000	$0

Public Information and Education – Campaign Development

Assess Traffic Safety Impact:

Promoting awareness will help to decrease motorist crashes among the traveling public.

Linkage:

Wisconsin's outreach plan will assist the state in reducing traffic fatalities 2 percent from the 2014-2018 calendar year rolling average of 576 to 564.5 by December 31, 2020.

Rationale for Selecting Countermeasure/Amount:

The support of high visibility enforcement through public information is an effective countermeasure that works on pages 1-54, 2-23, 3-31, 4-17, 4-18, 5-16, 5-19, 5-20, and 8-27of the ninth edition.

Description:

Continue to develop a statewide public information and education campaign on distracted driving, speed, and other campaigns to reduce injuries and fatalities based on NHTSA's goals and objectives utilizing various methods such as the Web, print, and TV. Contractual services for product and placement, printing and postage. Collaborate with partners, revise and update all information, identify specific needs, and target information to various audiences including Spanish speaking customers. Provide up-to-date information and current data to the public. Collaborate with community prevention organizations to assist them in developing successful evidence-based prevention programs. Multiple program information outreach. This project will help to support the countermeasure that works on page

3-37 of the eighth edition. The impact of the project is to help raise awareness among drivers of the importance of highway safety rules and regulations.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-90-02-CP**	$480,000	$0

Paid Media

Rationale for Selecting Countermeasure/Amount:

    The support of high visibility enforcement through public information is an effective countermeasure that works on pages 1-54, 2-23, 3-31, 4-17, 4-18, 5-16, 5-19, 5-20, and 8-27of the ninth edition. It is also allowable under 23 CFR §1300.23(j)(1)(vi).

Description:

    Contract for paid media for all major behavioral areas and with an emphasis on impaired driving. These projects will help to support all communication and outreach countermeasures that work described in each section of the HSP. The impact of the project is to help raise awareness among drivers of the importance of highway safety rules and regulations.

Intended Subrecipients	Funding Source	Unique Identifier	Funding Amount	Local Benefit
BOTS	402	**2020-90-07-PM**	$500,000	$0
BOTS	405d	**2020-31-07-M5**	$250,000	$0

Community Traffic Safety Outreach and Media Programs —Budget Summary		
402	**2020-90-01-CP**	$450,000
402	**2020-90-04-CP**	$90,000
402	**2020-90-06-CP**	$375,000
405b	**2020-25-02-M2**	$200,000
405d	**2020-31-02-M5**	$250,000
402	**2020-70-07-MC**	$50,000
402	**2020-80-02-PS**	$20,000
402	**2020-90-02-CP**	$480,000
402	**2020-90-07-PM**	$500,000
405d	**2020-31-07-M5**	$250,000
	Total	**$2,665,000**

Appendix 1:

LAW ENFORCEMENT GRANT TARGETING METHODOLOGY

As It Relates to Alcohol, Speed, and Occupant Protection Grants

Introduction:
   The following is documentation for the methodology on how the targeting lists of political entities and their respective law enforcement agencies were selected for alcohol, speed, and occupant protection law enforcement grants.

This methodology includes the minimum three requirements under 23 CFR 1300.11(d)(5)(i) and (ii), the evidence-based traffic safety enforcement program to prevent traffic violations, crashes, and crash fatalities and injuries in areas most at risk for such incidents. At a minimum, the State shall provide for:

   (1) An analysis of crashes, crash fatalities, and injuries in areas of highest risk;

   (2) Deployment of resources based on that analysis; and

   (3) Continuous follow-up and adjustment of the enforcement plan.

Continuous follow-up is provided by monthly reviews of grants by the State Program Managers, grant monitoring by the Regional Program Managers, and through attendance at the quarterly Traffic Safety Commissions in each county.

This appendix also covers requirements under 23 CFR 1300.21 (e)(4) for high risk population countermeasure programs. Agencies/municipalities that meet the criteria are encouraged to participate in enforcement efforts either through funded overtime grants (which require participation in national mobilizations) or through our non-overtime grant program which runs during the national mobilization periods. New targeting lists are created each year using the most recent three years of data.

Initially Wisconsin counties were grouped by descending degree of apparent crash problem (alcohol, speed, and occupant protection), within the respective grant types (alcohol, speed, and occupant protection). The following summarizes the larger steps taken for all three types of law enforcement grants in generating the overall list.

Initial Scoring:
   The Bureau of Transportation Safety's Traffic Crash files were queried for instances of alcohol, speed, and occupant protection related crashes, by crash type (fatal, injury, and property damage), as noted on the DT4000 crash report form, in Wisconsin cities, villages and townships and grouped together by county for the calendar years 2016, 2017, and 2018. Three years of data were collected to disguise some of the natural fluctuations from year to year. Not all locations in Wisconsin have recorded each of the three types of crashes during the 2016-2018 three-year period; those locations were

immediately excluded from further investigation, within their respective targeting list grant type (alcohol, speed, and occupant protection).

Reported crashes on public roads were matched with the people involved in the crashes, assigning numeric weights to reported injuries (and non-injuries). The numeric weights assigned were:

Fatal injury = 20
Incapacitating injury = 20
Non-incapacitating injury=10
Possible injury = 5
Unknown or no injury = 1

Numeric weights of the injuries (and non-injuries) were summed by county and cities, villages, or townships, within a county. That value was named *Calculated Score for Injuries*.

A *Normalized Score* for injuries was calculated by matching the *Calculated Score for Injuries* with the final January 1, 2018 population estimates (per 1,000), as released by the Wisconsin Department of Administration's Demographic Services Center (Ex. Calculated Score * (1000/Population Number)) for counties, cities, villages, and towns. Population estimates are based on the 2010 census and an analysis of more current data such as housing units and automobile registrations. 2018 population data was used because it is the most recent available. An example of the formula to be used for each of the respective seventy-two counties in the state is the following:

Calculated Score * (1,000/(2018 County Population))

Each county is evaluated with regard to its *Calculated Score for Injuries* and its *Normalized Score* to see if it meets the criteria for selection. The county-level criteria varies by grant type (alcohol, speed, and occupant protection) and can be found in one of the three respective subsections for grant types, below. The exception to this scoring are all counties with a population of 500,000 or greater, where counties meeting this criterion will automatically be included in the three law enforcement grant types (Alcohol, Speed, and Occupant Protection).

I.   Full-year Law Enforcement Grants (Alcohol and Occupant Protection Only)

Municipalities located in multiple counties have been combined, thus only appear once in the listings. The county containing the largest percentage of the municipality's population has been designated the county of record for the listings. If counties in which a municipality exists are needed, please reference the worksheet named "2018MuniInMultiCounties", in the MS Excel files named "2018MuniAlcWeightedTrgtNormal.xlsx".

<u>Criteria at County Level</u>:
Select counties with the criteria of Weight >= ~~3,000~~ 1,800 OR NormalScore
>= 50.00 OR (Weight >= 2,000 AND NormalScore >= 30.00).

Select the next four counties, from those counties that are still unselected
who have a Rural-Urban Continuum Code of one through six and have the
next highest NormalScore scores from ALL counties per RPM Region.

<u>Criteria at Municipal Level</u>:

A list of municipalities for each of the counties selected as a possible grant
candidate will be generated, showing the NormalScore and Weight, for each
of the municipalities within a county. Municipalities within each of these
counties will be selected for potential grants using the following criteria:

Weight >= 300
NormalScore >= 50.00

Each of these municipalities will be highlighted in blue. Please note that
municipalities that have a law enforcement agency presence, besides the
county sheriff will also be highlighted, by the use of **bold** text.

Each county NOT having a Rural-Urban Continuum Code of seven through nine
is evaluated with regard to its *Calculated Score for Injuries* and its *Normalized
Score* for each of the four quarters to see if it meets the criteria for selection. The
county-level criteria varies by grant type (alcohol, speed, and occupant
protection) and can be found in one of the three respective subsections for grant
types, below.

Counties with normalized scores that fall outside one or more standard
deviations, but less than two standard deviations from the population group's
average, but whose normalized score is at least 15% above the group mean are
displayed against a lightly red shaded background and will be selected as grant
candidates. Counties with normalized scores that fall outside two or more
standard deviations from one of the six population group means are displayed
against a more darkly shaded background and are automatically eligible as a
grant candidate.

II.   Occupant Protection Grants by County, Based Upon the Number of Youth
        Aged 16-19 Years of Age in Unbelted Crashes.

        The selection process will also make counties eligible for Occupant Protection
        Grants, based upon the number of youth driver's aged 16-19 in unbelted

crashes in a particular county, for the years 2016 through 2018, relative to the population per county, for the state as a whole, where the county has not been previously targeted for Occupant Protection grant(s).

Counties, which have the largest number of those crashes statewide, will be considered for occupant protection grants. The local County Sheriff's law enforcement agency will be the first enforcement agency contacted, for each county, given they have county-wide jurisdiction.

III.   All Grants Types (Alcohol, Speed, and Occupant Protection) by County, Based Upon Population.

Counties with a population greater than or equal to 500,000 will be targeted for all three categories of law enforcement grant types (Alcohol, Speed, and Occupant Protection), regardless of the grant distribution methodology selected for a given targeting year.

Please note population was used as the metric, instead of VMT, because of the on-going regularity and timeliness of annual population estimates (both state and federal) versus, the unpredictability of when VMT data will become available, for a given year.

After each county that has been selected for a particular type of grant (Alcohol, Speed, and Occupant Protection) we then drilled-down to the municipal (City, Village, or Town) level to indicate the specific municipal entities that qualified the county for a grant. This will be achieved by measuring the *Normalized Score* for injuries and the *Calculated Score for Injuries*, for each of the municipalities against the criteria set for municipalities, in each of the grant types (Alcohol, Speed, and Occupant Protection) as described in Section I., above. Please note that the County Sheriff of a selected county, regardless of grant type will always be considered for a grant, otherwise the local law enforcement agency that has a selected municipality within its jurisdiction will be considered to implement a grant on behalf of the selected municipality.

405(B) Occupant Protection Grant

Participation in Click-it-or-Ticket (CIOT) national mobilization

Wisconsin will participate in the Click It Or Ticket high-visibility national enforcement mobilization in 2020. The mobilization will have an enforcement, paid media, and earned media component. Wisconsin has had good participation from law enforcement agencies throughout the state.

As required under 23 CFR § 1300.11(d)(6) and 23 CFR § 1300.21 (d)(2), participating agencies include:

Adams County Sheriff's Office	Black River Falls Police Department	Colby Abbotsford Police Department
ALBANY PD	Bloomfield Township Police Department	Colfax Police Dept.
Altoona Police Department	Boscobel Police Dept.	Coloma Police Department
AMERY POLICE DEPARTMENT	Brandon Fairwater Police Dept.	Columbia County Sheriff's Office
Antigo Police Department	Brillion Police Dept.	Columbus Police Department
Appleton Police Department	Brodhead Police Department	Cornell Police Department
Arcadia Police Department	Brooklyn Police Dept.	Cottage Grove Police Department
Arena Police Department	Brown County Sheriff's Department	Crawford County Sheriff's Department
Ashwaubenon Public Safety	Brown Deer Police Department	Cudahy Police Department
Athens Police Department	Brownsville Police Department - Village Of	Cumberland Police Department
AUGUSTA POLICE DEPT	Buffalo County Sheriff's Office	Dane County Sheriff's Office
Baldwin Police Dept.	Burnett County Sheriff's Department	De Pere Police Department
Baraboo Police Department	Butler Police Department	DeForest Police Department
Barneveld Police Dept.	Caledonia Police Department - Village Of	Dickeyville Police Dept.
BARRON COUNTY SHERIFF'S DEPT	Campbell Police Department	Dodge County Sheriff's Office
Bayfield County Sheriff's Office	Campbellsport Police Department	Dodgeville Police Department
Bayfield Police Department	Cascade Police Dept.	Door County Sheriff's Department
Bayside Police Department	CEDARBURG PD	Douglas County Sheriff's Department
Beaver Dam Police Department	Chetek Police Department	Dunn County Sheriff's Office
BELLEVILLE PD	Chilton Police Department	Durand Police Department
Beloit Police Department	Chippewa County Sheriff's Office	East Troy Police Department - Village of
Birchwood Police Dept.	Clark County Sheriff's Department	Edgar Police Department
BLACK CREEK PD	Clintonville Police Department	Edgerton Police Department
Elk Mound Police Dept.	Horicon Police Dept.	Marathon County Sheriff's Office
Elkhart Lake Police Department	Hortonville Police Department	Marinette County Sheriff's Office
Elkhorn Police Department	Hudson Police Department	Marinette Police Department
Ellsworth Police Department	Hurley Police Department	Markesan Police Department
Elm Grove Police Department	Iowa County Sheriff's Office	Marquette County Sheriff's Department
Elmwood Police Department	Iron County Sheriff's Department	Marquette University Police Dept
Evansville Police Department	IRON RIVER PD - TOWN OF	Marshall Police Department
Everest Metropolitan Police Department	Jackson County Sheriff's Office	Marshfield Police Department
Fairchild Police Dept.	Jackson Police Department	Mayville Police Department

Fennimore Police Department	Janesville Police Department	McFarland Police Department
Fitchburg Police Department	Jefferson County Sheriff's Office	Mellen Police Department
Florence County Sheriff's Office	Jefferson Police Dept.	Melrose Police Department
Fond du Lac Police Department	Johnson Creek Police Department	Menasha Police Department
Fond du Lac Sheriff's Office	Juneau Police Department	Mequon Police Department
Fort Atkinson Police Department	Kenosha Police Department	Merrill Police Department
Fox Lake Police Department	Kewaskum Police Department	Merrillan Police Department
Fox Point Police Department	Kiel Police Department	Middleton Police Department
Fox Valley Metro Police Department	Kohler Police Department	Milton Police Department - City Of
Franklin Police Department	Kronenwetter Police Department	Milton Police Department - Town Of
Fredonia Marshal	La Crosse County Sheriff's Office	Milwaukee County Sheriff's Office
Fulton Town of Police Dept.	La Pointe Police Department	Milwaukee Police Department
Geneva Police Department - Town Of	Lafayette County Sheriff's Office	Mineral Point Police Department
Glendale Police Department	Lake Delton Police Department	Minocqua Police Department
Grand Chute Police Department	Lake Geneva Police Department	Minong Police Dept.
Grand Rapids Police Department	LAKE HALLIE PD VILLAGE OF	Mishicot Police Dept.
Grant County Sheriff's Office	Lake Mills Police Department	Mondovi Police Department
Grantsburg Police Department	Lancaster Police Department	Monona Police Department
Green Bay Police Department	Lannon Police Department	Monroe County Sheriff's Office
Greendale Police Department	Linden Police Department	Montello Police Department
Greenfield Police Department	LINN PD - TOWN OF	Monticello Police Department
Hales Corners Police Department	Lodi Police Department	Mosinee Police Dept.
Hammond Police Department	Lomira Police Department	Mount Pleasant PD – Village of
Hancock Police Department	Luck Police Department	Mukwonago PD - Village of
Hartland Police Department	Madison Police Department	Muscoda Police Department
Hazel Green Police Dept.	Madison Police Department - Town Of	Muskego Police Department
Highland Police Dept.	Manitowoc Police Department	NEILLSVILLE POLICE DEPARTMENT
Hillsboro Police Department	Maple Bluff Police Department - Village of	Nekoosa Police Department
Hobart/Lawrence Police Department	Marathon City Police Department	Neosho Rubicon Ashippun Police Dept
New Berlin Police Department	Pulaski Police Department	Sturgeon Bay Police Department
New Glarus Police Department	Racine County Sheriff's Office	Sturtevant Police Department
New Holstein Police Department	Randolph Police Department	Summit Police Department - Village of
New Richmond Police Department	Red Cliff Police Dept.	SUN PRAIRIE POLICE DEPARTMENT
Newburg Police Department	Rock County Sheriff's Office	UW - Whitewater Police Services
Nicolet Area Technical College	Rome Police Department - Town Of	UW Green Bay Police Department
North Fond du Lac Police Department	Rosendale Police Department	Vernon County Sheriff's Office
North Hudson Police Department	Rothschild Police Department	Verona Police Department
Oak Creek Police Department	Sauk County Sheriff's Office	Village of Fox Crossing PD
Oakland Township Police Department	Sauk Prairie Police Department	Walworth County Sheriff's Department
Oconomowoc Lake Police Department	Sawyer County Sheriff's Office	Walworth Police Department - Village of
Oconomowoc Police Department	Seymour Police Department	Washburn County Sheriff
Oconto Falls Police Dept.	Sharon Police Department - Village Of	Washburn Police Department

Onalaska Police Department

Oneida Police Department

Oregon Police Department

Orfordville Police Department

Osseo Police Department

Outagamie County Sheriff's Department

Owen-Withee Police Department

Ozaukee County Sheriff's Office

Palmyra Police Department

Pepin County Sheriff's Department

Pepin Police Department

Pewaukee Police Department - Village Of

Pierce County Sheriff's Department

Pittsville Police Department

Plain Police Department

Platteville Police Department

Pleasant Prairie Police Department - Village Of

Plover Police Department

Plymouth Police Department

Port Edward Police Dept.

Port Washington Police Department

Portage County Sheriff's Office

Portage Police Department

Poynette Police Department

Prairie du Chien Police Department

Princeton Police Dept.

Rice Lake Police Department

Richland Center Police Department

Richland County Sheriff's Office

Ripon Police Department

Ripon Police Department - Town Of

River Hills Police Department

Roberts Police Department

Shawano County Sheriff's Department

Shawano Police Department

Sheboygan County Sheriff's Office

Sheboygan Falls Police Department

Shell Lake Police Department

Shiocton Police Department

Shorewood Hills Police Dept.

Siren Village of Police Dept.

Slinger Police Department

SOMERSET PD

Sparta Police Department

Spring Green Police Department

Spring Valley Police Department

St. Francis Police Department

St. Nazianz Police Dept.

Stanley Police Department

Star Prairie Police Dept.

Stevens Point Police Department

Stoughton Police Department

Superior Police Department

Thorp Police Department

Tomah Police Department

Tomahawk Police Department

Town of Hayward Police Dept.

Trempealeau County Sheriff's Office

Turtle Lake Police Department

UW - Platteville Police Department

UW - Eau Claire Police Department

UW - Madison Police Department

UW - Milwaukee Police Department

UW -Oshkosh Police Department

UW - Parkside Police Department

UW - Stout Police Department

Washington Island Police Department

Waterford Police Department - TOWN

Waterloo Police Department
WATERTOWN POLICE DEPARTMENT

Waukesha County Sheriff's Office

WAUNAKEE PD

Waupaca County Sheriff's Office

Waupun Police Department

Wausau Police Department

Waushara County Sheriff's Department

West Allis Police Department

Weyauwega Police Department

Whitefish Bay Police Department

Wild Rose Police Department

Winneconne Police Department

Wisconsin Dells Police Department

Wisconsin Rapids Police Department

Wood County Sheriff's Office

Woodville Police Department

Wrightstown PD - Village of

Child restraint inspection stations

County	Number of Inspection Stations	Number of Inspection Events	Stations/Events Serving an Urban Population	Stations/Events Serving a Rural Population	Stations/Events Serving an At-Risk (Low Income)
Brown	1		1		
Dane	1		1		1
Fond du Lac	1		1		
Iron	1			1	1
La Crosse	2	2	4		4
Langlade	1			1	1
Marinette	2			2	2
Milwaukee	13		13		13
Ozaukee	3		3		
Portage	2			2	2
Racine	1		1		1
Sauk	1			1	
Sheboygan	1		1		
Washington	3		3		
Waukesha	5		5		
Wood	2			2	
Totals	40	42	33	9	25
	Inspection Stations	Inspection Stations or Events	Stations/Events Serving Urban Areas	Stations/Events Serving Rural Areas	Serving an At-Risk (Low Income)
			USDA rural-urban continuum code 1-3	USDA rural-urban continuum code 4-9	

CERTIFICATION: The inspection stations/events are staffed with at least one current nationally Certified Child Passenger Safety Technician.

Child passenger safety technicians

Enter an estimate of the total number of classes and the estimated total number of technicians to be trained in the upcoming fiscal year to ensure coverage of child passenger safety inspection stations and inspection events by nationally Certified Child Passenger Safety Technicians.

Estimated total number of classes   10

Estimated number of technicians   150

Maintenance of effort

ASSURANCE: The lead State agency responsible for occupant protection programs shall maintain its aggregate expenditures for occupant protection programs at or above the level of such expenditures in fiscal year 2014 and 2015.

Appendix 3

405 (C) STATE TRAFFIC SAFETY INFORMATION SYSTEM IMPROVEMENTS GRANT

Traffic records coordinating committee (TRCC)

Submit at least three meeting dates of the TRCC during the 12 months immediately preceding the application due date.

Meeting Date
November 28, 2018
March 6, 2019
April 3, 2019

Enter the name and title of the State's Traffic Records Coordinator

Name of State's Traffic Records Coordinator	Laura C. Vande Hey and Andrea Bill
Title of State's Traffic Records Coordinator	Program and Policy Supervisor and Traffic Safety Engineer Research Program Manager

Enter a list of TRCC members by name, title, home organization and the core safety database represented, provided that at a minimum, at least one member represents each of the following core safety databases: (A) Crash; (B) Citation or adjudication; (C) Driver; (D) Emergency medical services or injury surveillance system; (E) Roadway; and (F) Vehicle.

Member Organizations	2019 TRCC MEMBERS Representative		Database Representation
	DOT		
SHSO Co-Chair (Tie vote)	Vande Hey	Laura	Crash
UW TOPS Lab Co-Chair	Bill	Andrea	Crash
OPFI	Pavich	Peter	
WSP -	Harvey	Dave	Citation or Adjudication
WSP - TraCS (alt)	Wolfe	Paul	Citation or Adjudication
WSP BDS	Schwartz	Darlene	Driver

DMV/BVS (alt)	Galbraith	Timothy	Vehicle
DTIM/BSHP (alt)	Schieldt	Kelly	Roadway
DBM/BITS - GIS	Moline	Mitch	Crash
DTSD/BHO	Adams	Angela	Roadway
DTSD/BHO	Szymkowski	Rebecca	Roadway
DTSD/BHO (alt)	Porter	Brian	Roadway
BOTS	Corsi	Larry	Crash
BOTS	Muthumari	Chokkalingam	Crash
BOTS	Barkholtz	Heather	Citation or Adjudication
DOT	McGinn	Reed	Vehicle
	State Agencies and Organizations		
DOJ/CIB TIME	Doberstein	Courtney	Citation or Adjudication
DOJ	Fortunato	Dennis	Citation or Adjudication
OSC-CCAP	Olson	Andrea	Citation or Adjudication
OSC-CCAP (alt)	Hicks	Kim	Citation or Adjudication
DHS/DPH-EMS	Happel	Chuck	EMS or Injury Surveillance
DHS/DPH/BHIP	Taylor	Laurie	EMS or Injury Surveillance
DOJ	Jenswold	Tara	Citation or Adjudication
MenomineeTribal PD	Warrington	Warren	
DPI	Dean	Brian	Driver
	UW		
UW CHSRA-CODES	Bigelow	Wayne	EMS or Injury Surveillance
UW TOPS Lab (alt)	Parker	Steven	Crash
CIREN Center Milwaukee	Halloway	Dale	EMS or Injury Surveillance
	Local Agencies & Organizations		
AAA	Jarmusz	Nick	
Jefferson County	Udovich	Brian	
Onalaska PD	Berg	Tim	
Dane County SO	Alsaker	Matt	
Madison PD	Knight	Trevor	
Madison PD (Alt)	Reilly	Deanna	
	Federal Partners		
NHTSA	Kinnard	Kari	

FHWA/WI Division	Jolicoeur	David	
FMCSA/WI Division	Oesterle	Mark	
FMCSA/WI Division	Gessler	Mark	

State traffic records strategic plan

Upload a Strategic Plan, approved by the TRCC, that— (i) Describes specific, quantifiable and measurable improvements, as described in paragraph (b)(3) of this section, that are anticipated in the State's core safety databases, including crash, citation or adjudication, driver, emergency medical services or injury surveillance system, roadway, and vehicle databases; (ii) Includes a list of all recommendations from its most recent highway safety data and traffic records system assessment; (iii) Identifies which recommendations identified under paragraph (b)(2)(ii) of this section the State intends to address in the fiscal year, the countermeasure strategies and planned activities, at the level of detail required under § 1300.11(d), that implement each recommendation, and the performance measures to be used to demonstrate quantifiable and measurable progress; and (iv) Identifies which recommendations identified under paragraph (b)(2)(ii) of this section the State does not intend to address in the fiscal year and explains the reason for not implementing the recommendations.

Uploaded to GMSS			
Planned activity unique identifier	Planned Activity Name	Primary Countermeasure Strategy	Cost
2020-58-03-M3-01	Modernize Chemical Test Data Storage and Workflow	Driver/Accuracy	$92,110
2020-58-03-M3-02	Centralized TraCS Webservices System	Crash/Uniformity	$140,000
2020-58-03-M3-03	RP Coding Automation	Crash/Roadway/Integration	$50,000
2020-58-03-M3-04	Wisconsin CODES Project	EMS/Completeness	$129,389
2020-58-03-M3-05	2020 CODES Traffic Crash Linkage	Crash/Completeness	$99,741
2020-58-03-M3-06	Safety Data Warehouse Data Linkage	Crash/Driver/EMS/Integration	$25,000

2020-58-03-M3-07	Community Maps	Crash/Accessibility	$90,000
2020-58-03-M3-08	Predictive Analytics	Crash/Accessibility	$65,000
2020-58-03-M3-09	Modernize the FARS Processes	Crash/Timeliness	$100,000
2020-58-03-M3-10	Connected and Autonomous Vehicles (CAV)	Crash/Accuracy	$50,000
2020-58-03-M3-11	Crash Reconstruction Data Preservation	Crash/Uniformity	$208,058
2020-58-03-M3-12	Pedestrian Exposure Data	Crash/Roadway/Integration	$50,000
2020-58-03-M3-13	Text Data for Crash Analysis	Crash/Accuracy	$80,000
2020-58-03-M3-14	Comprehensive Evaluation of Data Quality for Ped Bike Crashes	Crash/Accuracy	$65,000

Quantitative improvement
Appendix 3a

State highway safety data and traffic records system assessment
Enter the date of the assessment of the State's highway safety data and traffic records system that was conducted or updated within the five years prior to the application due date and that complies with the procedures and methodologies outlined in NHTSA's "Traffic Records Highway Safety Program Advisory" (DOT HS 811 644), as updated.
Date of Assessment: 6/8/2015

Requirement for maintenance of effort
ASSURANCE: The lead State agency responsible for State traffic safety information system improvements programs shall maintain its aggregate expenditures for State traffic safety information system improvements programs at or above the average level of such expenditures in fiscal years 2014 and 2015.

Appendix 3a
State Traffic Safety Information System Improvements Grant
Interim Progress Report

State: <u>Wisconsin</u>   Report Date: _2019-06-04_____   Submitted by: _Laura Vande Hey____
   Regional Reviewer:

System to be Impacted	_X_CRASH ___DRIVER ____VEHICLE ____ROADWAY __CITATION/ADJUDICATION ____EMS/INJURY OTHER specify:
Performance Area(s) to be Impacted	__ACCURACY ___TIMELINESS _X_ COMPLETENESS __X__ACCESSIBILITY __ UNIFORMITY ___INTEGRATION ___OTHER specify:
Performance Measure used to track Improvement(s)	Crash data accessibility for state and local traffic safety review.
Specification of how the Measure is calculated / estimated	Crash data is available for online mapping and analysis through the Community Maps application, which is updated on a nightly basis from the Wisconsin Crash Database. The primary use of Community Maps is to support the quarterly review of crashes by Wisconsin's seventy-two county Traffic Safety Commissions (TSCs), however the system is also increasingly used by other safety professionals and by the general public. This measure examines the number of distinct users per month that access the Advanced Search capability, which is the primary interface used by the TSC's. It also includes the average number of page hits per day along with the percentage of crashes displayed on the crash map. Taken together, these values are intended to provide an overall baseline and measure for crash data accessibility improvements.
Date and Baseline Value for the Measure	2017-04-01 to 2018-03-31 (inclusive) Total Users 303 Number of Distinct Users Per Month 65 Number of Average Page Hits Per Day 38 % of Crashes Displayed on the Map 93%
Date and Current Value for the Measure	2018-04-01 to 2019-03-31 (inclusive) Total Users 399 Number of Distinct Users Per Month 81 Number of Average Page Hits Per Day 100 % of Crashes Displayed on the Map 96%
Regional Reviewer's Conclusion	Check one __Quantitative performance improvement *has* been documented __Quantitative performance improvement has *not* been documented __Not sure
If "has not" or "not sure": What remedial guidance have you given the State?	
Comments	

State of Wisconsin

2020 Strategic Plan

FOR

Traffic Safety Information System Improvements

April 3, 2019

STATE of WISCONSIN

TRAFFIC SAFETY INFORMATION SYSTEM IMPROVEMENTS

STRATEGIC PLAN
2020

Content

INTRODUCTION

On December 4th, 2015, President Obama signed into law P.L. No. 114-94, the new surface transportation reauthorization bill known as the "Fixing America's Surface Transportation Act" (otherwise known as the "FAST Act." The bill replaces the "Moving Ahead for Progress in the 21st Century Act" (otherwise known as "MAP-21"), which was signed into law on July 6th, 2012. The FAST Act contains sections that require the collection, management, distribution, and analysis of transportation safety data by local, state, or federal agencies.

23 U.S.C. §405(c), provides the basis for Section 405(c) State Traffic Safety Information System Improvements Grants. Such grants are the vehicle by which the federal government assists states with the crucial task of improving identified deficiencies in their various data systems.

To assure that the required data are properly, efficiently, and effectively collected, as well as well-managed and available to support increasingly data-driven traffic safety programs, 23 U.S.C. §405(c)(3)(C) requires each state to craft and update comprehensive Traffic Safety Information Systems (TSIS) strategic plans for the improvement of all the safety data systems in the state.

Wisconsin's TSIS Strategic Plan, developed with input from data collectors, program managers, and users, can be used to guide the most cost-effective use of resources to result in the greatest quality improvements to the state's data in terms of accessibility, completeness, timeliness, uniformity, accessibility, and integration.

BACKGROUND

In the past, Wisconsin has met the criteria for participation in the 23 U.S.C. 405(c) State Traffic Safety Information Systems Improvements Grant Program under the 2012 surface transportation reauthorization bill, called "MAP-21." The FAST Act of 2015 has now superseded MAP-21, and Wisconsin must follow the FAST Act regulations for fiscal year 2019 grants.

The committee that organizes this Traffic Safety Information System Improvement Plan (TSISP) is the Traffic Records Coordinating Committee (TRCC). This committee dates to 2005 when the state underwent a traffic records assessment (TRA). It was decided that a TRCC could most efficiently spearhead traffic records projects and serve as a vehicle for promoting digital excellence. The TRCC is composed of a diverse group of individuals from government, academia, law enforcement, the private sector, the insurance industry, and the healthcare and EMS fields. The TRCC has been led by the state highway safety office (in Wisconsin's case, the Bureau of Transportation Safety, or BOTS). The group meets at least every quarter for approximately three hours. While this plan has existed in an independent manner for well over a decade, it has always been created in concert with other plans, and its content has informed related plans. For example, Wisconsin's strategic highway safety plans (SHSPs) have been updated under the leadership of the

Wisconsin Department of Transportation's Traffic Safety Council. Members of the TRCC have been involved in drafting the SHSP section addressing data and information improvements for decision making, and many SHSP contributors are also TRCC members.

This plan is broadly consistent with earlier plans, including the 2010-2014 and the 2015-2019 plans. The primary objectives of the 2010-2014 Strategic Plan for Traffic Records Improvement were automation of crash data, improved incident location, development of a state ambulance run reporting system, and increased access to safety data. The TRCC recommended that funds be used primarily for the adoption of the national model TraCS law enforcement data collection. Such a system allowed—and continues to allow—officers all throughout the state to enter crash information into a centralized portal.

The 2015-2019 TSISP diverged from the 2010-2014 plan in that it more closely matched the data projects called for by the 2014-2016 Strategic Highway Safety Plan (SHSP). It broadly continued, however, in its funding priorities: significant monies were used to support TraCS expansion and training, as well as the introduction of a new crash form and data warehouse (the data warehouse mandated only internet submissions from law enforcement agencies as of Jan 1st, 2017). There were several projects which also strengthened the connections between crash data on one hand, and hospital and EMS data on the other, and smaller projects that focused on improving the access and visualization of safety data for traffic safety professionals. This 2020 plan focuses on similar priorities and projects.

It is important to note that, in past years, such plans have had multi-year scales. Since the 2018 Highway Safety Plan, following NHTSA guidelines, a one-year time scale was adopted. This will allow BOTS to develop a more focused plan that can be more responsive to the rapidly changing technologies and shifting needs of TRCC members. As such, a new 2021 plan will be developed near the end of FFY 2020.

I. STRATEGIC PLANNING PROCESS

A. Participants
- o TRCC Policy Group, This is the group responsible for oversight of the state's highway safety data systems. This policy-level group is composed of agency heads or division administrators who have authority and charge of overseeing the planning and improvement of safety data systems and/or who are collectors or users of these data. This group can meet on an ad-hoc basis to review the work of the TRCC Technical Group, and to set state policy to result in a statewide data improvement program that assures coordination of efforts and sharing of data. Members represent the Departments of Administration, Transportation (Highways, Motor Vehicles, and State Patrol, including its Bureau of Transportation Safety that is the state highway safety office for the State of Wisconsin), Health Services, Justice as well as the Office of State Courts. Members and affiliations are listed in Appendix 1, "TRCC Policy Group." The Members are customarily presented with a draft Charter for review and adoption during the plan approval process.

- o <u>TRCC Technical Group</u>. This group is comprised of a core group of members who have met quarterly since the TRCC was organized under TEA-21 in 1999 and additional members who represent new users and/or collectors of these data. The TRCC Technical Group comprises the main group that plans the state's data projects and management systems. The group is quite large, with representatives who are managers of crash, exposure, roadway, citation/adjudication, driver, vehicle, and injury control/EMS data. Furthermore, data users and analysts in the fields of public health, highway safety, and roadway engineering also contribute to this group. Members and affiliations are listed in Appendix 2, "TRCC Technical Group."
- o <u>TRCC Technical Group Subcommittees or Workgroups</u>, as required. The purpose of these sub-groups is to provide more specific attention to the sub-groups of: crash data; exposure data; roadway data; citation/adjudication data; driver data; vehicle data; and injury control/EMS data. Time was given for members of these subgroups to meet during TRCC Technical Group meetings, but members were also encouraged to meet at other times when possible.

B. <u>Identification of "Deficiencies" in State Traffic Records Data</u>

Generally, BOTS analysts and TRCC Technical Group members used processes that had been used the previous years to identify state data deficiencies. Such processes are described below.

TRCC members described the files and functions they agreed were components of the state's Traffic Safety Information System (Appendix 3, "Wisconsin's Existing Data Sources"). Furthermore, on March 2, 2017, the TRCC Technical Group met and reviewed existing sources of data in different sub-groups in order to determine the different data sources requiring improvements in the following arenas: TRCC members went through three different rotations in which the available traffic records data was analyzed in the following areas:

- o *Accuracy*
- o *Completeness*
- o *Timeliness*
- o *Uniformity*
- o *Accessibility*
- o *Integration*

In the TRCC meeting, suggestions were collaboratively compiled and then sent back out to the group in the following weeks.

BOTS staff and TRCC leadership reviewed past recommendations of the TRCC Public Safety Incident Location Work Group, recommendations of the WisDOT Crash Data Improvements Workgroup, the 2015 Traffic Records Assessment, and portions of other assessment documents. Deficiencies were then discussed within BOTS; BOTS analysts encouraged TRCC Technical Group members to reference the 2015 TRA, which provides a recent snapshot on the status of traffic records.

C. <u>Process for Establishing Improvement Objectives</u>

After determining what would be beneficial for state data systems, the TRCC Technical Group used the following information for establishing objectives that could reasonably be accomplished in FFY 2020.

- o Requirements and priorities from the most recent Strategic Highway Safety Plan Issue Areas.
- o 2020 Highway Safety Plan (HSP) priorities and planned expenditures.
- o TRCC member knowledge of the data files they manage and/or use, and feedback that they receive from users.

Such knowledge was then balanced against the 2019 405(c) funds and the projected 2020 405(c) funds to create TRCC-specific goals and goals corresponding to TRA recommendations.

D. Process for Selecting Specific Projects for 405(c) Funding
  1. Before the April 2018 meeting of the TRCC, BOTS staff requested that individuals or groups proposing projects describe how their project would help improve the accuracy, completeness, timeliness, uniformity, accessibility, and integration of the state's traffic records data systems. In their proposal, BOTS asked individuals to reference past plans and the Traffic Records Assessment. Appendix ("Sample Worksheet").
  2. Each project was related to the data deficiencies noted in Section (B) above. Timelines will be approved for project objectives that can reasonably be accomplished in FFY 2019, given existing resources plus 405(c) funds. Accountability will be clearly identified in each project application.

E. Steps for Monitoring and Reporting Progress in Achieving Project Objectives
  1. Each 405(c)-funded project plan will include performance indicators to measure the success or failure of the project in terms of progress from baselines to quality improvement objectives. Project sponsors will be required to provide quarterly reports reviewed at the TRCC quarterly meetings, and, when requested, at subcommittee meetings.
  2. Matrices for measuring progress will be produced by the state highway safety office (SHSO) based upon project reports, and will be reviewed by the technical group at its quarterly meetings.
  3. Summary quarterly reports will be forwarded to the TRCC Policy Group.
  4. An annual report will be prepared near the end of FFY 2019 for review and approval of the technical group, and then forwarded to the TRCC policy group for review and signature.
  5. The signed report will be forwarded to NHTSA.

F. Process for Modifying or Replacing Objectives
  - o The Wisconsin TSIS Plan is intended to be an active document that will reflect new issues, new technologies and changing environments. As such, the TRCC technical group will review the existing objectives and will begin gathering information about changes in the technology and strategic resources.
  - o As soon as information is available about the progress of funded projects, and no less than quarterly, this information will be reviewed by the Technical Group. Significant changes in the environment and/or progress of projects will form the basis for proposed changes in objectives. Historically, this has resulted in annual updates to Wisconsin's Traffic Records Strategic Plan. Going forward, a new plan will be created each year.
  - o Any proposed changes in the TSIS will be forwarded to the TRCC Policy Group for signoff and subsequently will be included in the Annual Report and annual

update of the Strategic Plan. Changes in the measurement methodologies of existing plans will be incorporated into subsequent TSIS plans when projects span multiple years.

II. STRATEGIC PLANNING VISION, MISSION, PRINCIPLES, AND GOALS

A. Vision

Integrated planning for Wisconsin's public health, safety and security information systems results in traffic safety information that is timely, accurate, and complete, and thus meets the needs of many types of users; this information is readily accessible in formats that meet the needs of these users, is consistent between organizations and with national standards, and can be integrated with other types of data and with information from other jurisdictions.

B. Mission

The State of Wisconsin provides for the safety and welfare of its citizens through development and implementation of science-based and periodically reviewed public health, safety and security regulations, programs and activities, and promotes the use of technology to support agency missions and make government more accessible, responsive, and accountable.

The State of Wisconsin Traffic Records Coordinating Committee (TRCC), a group consisting of collectors, managers, and users of all components of Wisconsin's Traffic Safety Information System (TSIS), serves as a forum for discussion of records issues, reviews proposed changes in state TSIS improvement activities before they are implemented, reviews new technology and annually plans, monitors, and analyzes safety information improvement projects.

C. Principles

Data components of Wisconsin's traffic safety information systems are collected by many organizations and agencies for their individual business purposes. The usefulness of these many types of data for highway safety programming and analysis depends upon their availability and quality. Decisions made about changes to any one component of the system may have many down-stream consequences. The following principles guide this group and this specific plan:
- o Issues of cost of collection and storage should be discussed and decided on a state-level basis.
- o Data should be entered and stored once but used many times.
- o Data should be linked and shared between systems.
- o Data should meet national standards (MMUCC, NEMSIS, MIRE, etc.)
- o Data quality is defined by the user; business needs of the collector and/or manager should not be paramount in making quality determinations.

D. Traffic Safety Information System Strategic Plan Goals

Goal 1: Maintain and continue to improve the now-updated DT4000 crash data warehouse in areas of timeliness, completeness, accuracy, consistency, accessibility, and data integration. Ensure that this data source conforms as much as possible to MMUCC (Model Minimum Uniform Crash Criteria) and to MIRE (Model Inventory of Roadway Elements). Furthermore, BOTS's Crash Records Unit (CRU) should continue to improve the data quality and integration possibilities of the DT4002 (the

self-reported crash used for minor crashes). The Crash Records Unit of BOTS should be supported in their attempts to automate the data input for both forms—and associated linkages—as much as possible.

Goal 2: Link, as comprehensively as possible, citation and crash data; this will particularly help DSP's innovative Predictive Analytics Project in determining resource allocation.

Goal 3: Organize and assist law enforcement training to improve the completeness and accuracy of the new DT4000 crash data form (as well as citation and adjudication forms). Such training should include periodic field training by CRU. Keep the system up-to-date over the coming years by promoting strategic and planned upgrades to the system. Continue to assist law enforcement agencies (LEAs) with any questions they have.

Goal 4: Coordinate traffic safety information with related public health, safety, and security information to minimize duplication of effort and inefficient use of resources, and to enable multi-factorial analyses. To this end, the DOT should expand and deepen outreach to the Department of Health Services (DHS) and the Department of Children and Families (DCF).

Goal 5: Improve the link between crash data on the one hand, and EMS data/hospital records on the other. This will help state analysts quantify and study the health impacts of crashes, the importance of rapid and effective EMS service in determining positive health outcomes, and the relationship between proximate hospitals and health outcomes. Furthermore, this will allow researchers to understand the unique health risks from certain types of crashes (thus improving health outcomes).

Goal 6: Improve the interoperability, data completeness, data timeliness, and ease of use of WisTransPortal, the querying and visualization tool that was built by the Transportation Operations and Safety Laboratory (TOPS) for use in traffic safety commissions (TSCs). All of these improvements will increase the use of this tool by TSCs, thereby boosting the effectiveness of these bodies and the local analysis of traffic crashes that they bring.

Goal 7: Focus on improving the data sources that users can bring into WisTransPortal's Community Maps system (which is used at TSCs by BOTS staff, law enforcement liaisons (LELs), and law enforcement agencies (LEAs). Moreover, linkages between the DT4000 crash reports and Community Maps should be made automatically.

Goal 8: Continue strategic investments in data gathering regarding risky driving behaviors in Wisconsin, such as the use of alcohol, opioids, and cell phones while driving. Such data will be helpful in the analyzing of such behaviors over the coming years (and the impacts of interventions and policy changes).

Goal 9: Ensure TRCC involvement at all stages in future strategic planning efforts, by establishing a forum for discussion, by the TRCC of all issues and initiatives to be addressed in the new Plan including the findings of the Traffic Records Assessment. TRCC members should consider the

TRA a living document, and should measure projected projects against its goals.

Goal 10: Support efforts to collect high-quality bicycle and pedestrian exposure data, which can include latent demand factors. Such data is as of yet unavailable, and this data limitation hinders effective safety analysis.

Goal 11: Research and eventually implement predictive crash analytics programs (advanced computer statistics and mapping programs that allow users to predict where and when different types of crashes are most likely to occur). Such programs can improve law enforcement visibility (to prevent crashes) and decrease law enforcement response times when such crashes occur.

Goal 12: Support efforts within DOT divisions that are focused on connecting roadway and crash data. Such efforts will bolster traffic safety analysis being conducted by DOT engineers.

Goal 13: Strive to present information as visually as possible; this will allow research to be more widely adopted within and outside the DOT.

Goal 14: Create simple data architecture and linkages (as much as possible). If datasets and systems are already in existence, strive to adopt strategies to simplify the structure of the database.

E. State Data System Recommendations from the TRA

1. **Strategic Planning Recommendation**
   a. Strengthen the TRCC's abilities for strategic planning to reflect best practices identified in the Traffic Records Program Assessment Advisory.

   Crash Recommendations
   a) Improve the applicable guidelines for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
   b) Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

2. **Vehicle Recommendations**
   a. Improve the procedures/ process flows for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
   b. Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

3. **Driver Recommendations**
   a. Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

4. **Roadway Recommendations**
   a. Improve the applicable guidelines for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
   b. Improve the data dictionary for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
   c. Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

5. **Citation / Adjudication Recommendations**

a. Improve the applicable guidelines for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

EMS / Injury Surveillance Recommendations
   a. Improve the description and contents of the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
   b. Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
   c. Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

6. Data Use and Integration Recommendations
   a. Improve the traffic records systems capacity to integrate data to reflect best practices identified in the Traffic Records Program Assessment Advisory.
   b.

F. <u>Identified Deficiencies in the State's Traffic Records</u>

Along with the above recommendations, the TRA produced a helpful visual that demonstrates the current ranking of the state regarding record keeping. This was used to determine deficiencies in the state record system.
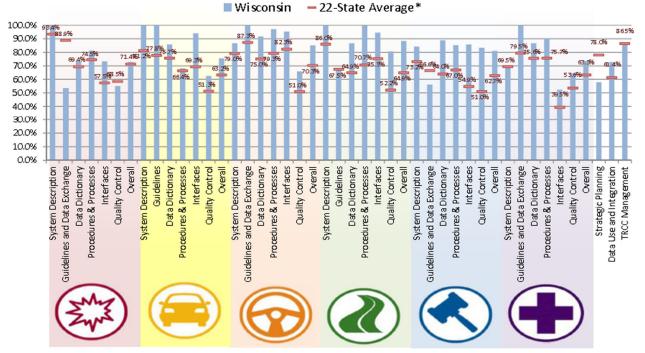
FIGURE 1: IDENTIFIED TRAFFIC RECORDS DEFICIENCIES

III. TRAFFIC SAFETY INFORMATION SYSTEM STRATEGIC PLAN PROJECTS

1. **Project Title:** Modernize Chemical Test Data Storage and Workflow Processes to Improve Arrest System and Driver Record Data Quality
   Organization Name: Department of Transportation - Chemical Testing Section
   Project Coordinator and Contact Information: Heather Barkholtz, heather.barkholtz@dot.wi.gov
   Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
   Crash
   Citation or Adjudication
   Driver
   EMS or Injury Surveillance System
   Roadway
   Vehicle
   Proposed Attribute of Data to Improve (*choose only one*):
   Accuracy
   Completeness
   Timeliness
   Uniformity
   Accessibility
   Integration
   Problem Identification (Reference the Traffic Records Assessment, if applicable.):
   Current chemical test data storage and flow processes were designed in 2005 around the IntoxNet and Arrest System databases. At the Chemical Testing Section, these activities are supported by an in-house developed Access Database named the IntoxNet Daily Uploader. Using Codebase API, the IntoxNet Daily Uploader imports new chemical test data from IntoxNet. The IntoxNet Daily Uploader then pushes a data file to the LAN which populates DB2 tables for DMV. A similar process takes place at the Wisconsin State Laboratory of Hygiene. The Chemical Testing Section Chief and the Toxicology Section Supervisor receive an email indicating the number of new records uploaded; this is currently the only data transfer acknowledgement. Once loaded into DB2 tables, URCL Arrest System employs an automated edit check for data quality. Entries that pass the edit check are uploaded into the Arrest System. Entries that fail the edit check remain in the URCL Arrest System table until the data is resolved and passes the edit check. Currently, no one is responsible for resolving errors in the URCL Arrest System table and no one receives notification of errors. Law enforcement officers use driver and Arrest System data to decide which citation to issue, e.g. OWI 1st vs. 2nd. Additionally district attorney's offices use driver and Arrest System data to predict and prepare for upcoming caseload. This project would develop the chemical test database and resolve system features necessary to modernize these processes so as to improve Arrest System and Driver Record input data quality. Furthermore, modernizing chemical test data storage will make the chemical test data accessible to other Wisconsin databases.

This project will result in the following improvements as described in the Traffic Records Assessment:
Easily understood data flow diagrams will be documented for how chemical test data is transferred into the Driver Record
Chemical test data transfer into the Driver Record will be enhanced
Grantees should expect to provide documentation that the grant has improved a core state safety database. Describe one specific and quantitative improvement to a core state traffic safety database that can be expected within one calendar year of grant approval:
As of January 16th, 2019 there were 12,501 unresolved chemical test data entries in the URCL Arrest System table; resulting in incomplete driver data. This project would ensure that errors are prevented or resolved in a timely manner.
Provide a baseline measure for this specific and quantitative improvement:
As of January 16th, 2019 there were 12,501 unresolved chemical test data entries in the URCL Arrest System table; resulting in incomplete driver data. This project would ensure that errors are prevented or resolved in a timely manner.
Project Objectives:
Improve the Arrest System and Driver Record data by enhancing the chemical test data workflow, minimizing unresolved URCL Arrest System table entries. This process improvement will ensure breath and blood alcohol concentration data is accurate and included in the Driver Record and Arrest System. The quality factors most improved will be timeliness, accuracy, completeness, integration, and accessibility.

Improve all aspects of chemical test data quality by implementing a near real time system of data quality edit checks with prompt feedback to staff capable of reconciling errors. As chemical test data quality improves in response to this systematic approach, more refined edit checks can be implemented within this framework to facilitate continuous data quality improvements.

Develop database and workflows to modernize the chemical test data storage and sharing to improve the timeliness and completeness of the Arrest System and Driver Record data.

Develop resolve workflows and implement new consistency checks as chemical test data is pushed to the Arrest System nightly to improve the timeliness and completeness of the Arrest System and Driver Record data.
Itemized Budget:
From BITS Quote:
Project Lead: 120 hours
Business Analyst: 200 hours
DMV CSS Unit: 506 hours
DMV CORE Unit: 240 hours
Resulting in a total development effort of 786 hours @ $85/hour = $90,610. There will also be a CPU cost for the CORE and DA units of 30 days @ $50/day = $1,500. The total cost of the project is estimated at $92,110.

2. **Project Title:** Centralized TraCS Webservices System

Organization Name: DOT/DSP
Project Coordinator and Contact Information: Darlene Schwartz,
darlene.schwartz@dot.wi.gov, 608-440-7627
Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
- o **Crash**
- o Citation or Adjudication
- o Driver
- o EMS or Injury Surveillance System
- o Roadway
- o Vehicle

Proposed Attribute of Data to Improve (*choose only one*):
- o Accuracy
- o Completeness
- o Timeliness
- o **Uniformity**
- o Accessibility
- o Integration

Problem Identification (Reference the Traffic Records Assessment, if applicable.):

Law Enforcement within Wisconsin is required to use the TraCS Crash form as the sole means for reporting law enforcement investigated traffic crashes. Over 550 Wisconsin law enforcement agencies are using TraCS. The TraCS baseline will be upgrading to a new and more current technology using 64-bit processing in the next year or two. Those agencies that are still using an Access database will not be able to use the new version of TraCS. While agencies using Access would be able to continue to submit crash forms per the statutory requirement, they would not be able to upgrade to the most current version until they move to a SQL database. Updated crash forms may include new fields, attributes and/or validation rules. After the release of the new TraCS Pack, all forms, tables, validation rules or F2 help information will not be updated for those agencies using Access. This diversity of crash form versions would impact the uniformity, completeness and accuracy of the crash data.

It can be costly for law enforcement agencies to make the move from Access to SQL, especially if they don't have internal IT staff to accomplish it. Currently, approximately 30% or 168 TraCS user agencies are already using SQL with the remaining 70% or 390 agencies still using Access for TraCS.

The Wisconsin State Patrol would like to be able to offer a TraCS Webservices option for agencies that currently have Access and are unable to move to SQL on their own.

Grantees should expect to provide documentation that the grant has improved a core state safety database. Describe one specific and quantitative improvement to a core state traffic safety database that can be expected within one calendar year of grant approval:

As the TraCS developers migrate away from the use and support of Access in favor of the new architecture, the number of agencies that can stay current with the TraCS Pack may decrease. Without an offer of a hosted TraCS Webservices option, many agencies may choose to continue to use Access and the version of TraCS they have. These agencies won't be able to update to newer versions and will contribute to a degradation of the accuracy, uniformity and completeness of crash data. By implementing this new hosted solution, many of the smaller agencies would have an option for staying current with the latest TraCS updates and forms improvements. **Provide a baseline measure for this specific and quantitative improvement:** The number of agencies using the current version(s) of TraCS could serve as a measure.

On November 16, 2018, the 2018 TraCS Fall Pack was released, and an additional 4 packs have followed as of March 27, 2019.   The table below shows the number and percentage of agencies that have received the fall or more current pack since the November release.

Agencies that have Updated to the 2018 Fall Pack or more current Pack

# of Agencies	% of Computers updated to January or 2018 Fall Pack
169 (31%)	100%
157 (29%)	99% - 75%
131 (24%)	74% - 50%
25 (5%)	49% - 3.03%
60 (11%)	0%
542*	Total Agencies on our Update Server

* If an agency is hosting other agencies on their web server, then the other agencies will not appear in the Update Server results. The Madison Police Department, for example hosts approximately 10 additional TraCS user agencies.*

Project Objectives:
TraCS Developers will make any updates to the TraCS software that is needed, create documentation on how to move/transition agencies from Access to the webservices environment, and install the TraCS on the new Servers. TraCS Support Staff will assist agencies with moving from Access to the webservices environment as well as assist with ongoing support of law enforcement agencies moving forward. Jacob Berger and the DSP IT staff will spearhead the ordering of the servers and other hardware, set up the webservices environment, and manage the ongoing maintenance of the servers and webservices environment. The ongoing costs will be staff time form TraCS Support staff to assist agencies with updating their users (add/remove users) and updating their local tables, etc. DSP IT staff time to conduct monthly or periodic server maintenance as they do with their current servers. There shouldn't be any additional license fees or ongoing hardware maintenance costs unless something broke.

Our goal is to have all Access agencies moved over to this environment by 12/31/2021.

- Host and maintain TraCS Webservices for smaller agencies that are currently on Access to provide them with a SQL option
- Create an MOU or agreement between external law enforcement agencies and DOT/DSP
- Set up pilot agencies to test the environment
- Create documentation for migrating agencies to the new environment
- Begin moving agencies onto the Centralized TraCS Webservices environment

Itemized Budget:
Total Cost for servers, storage and licensing: $140,000

3. **Project Title**: Reference Point (RP) Coding Automation and Enhancements Project (BITS Project# 3552)
Organization Name: Crash Records Unit of the Public Safety Technical Services Section of the Division of State Patrol of the Wisconsin Department of Transportation, DTIM, TOPS and BITS
Project Coordinator and Contact Information: Joe Bartaula, jyoti.bartaula@dot.wi.gov Chokkalingam Muthumari, Chokkalingam.Muthumari@dot.wi.gov
Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
- o **Crash**
- o Citation or Adjudication
- o Driver
- o EMS or Injury Surveillance System
- o **Roadway**
- o Vehicle

Proposed Attribute of Data to Improve (*choose only one*):
- o Accuracy
- o Completeness
- o Timeliness
- o Uniformity
- o Accessibility
- o **Integration**

Problem Identification (Reference the Traffic Records Assessment, if applicable.):
There are approximately 60,000 crashes that occur annually on the State Trunk Highway system in Wisconsin. In order to support critical GIS based safety analysis requirements throughout the Department, these highway crashes are mapped on an annual basis to the WisDOT State Trunk Network (STN) using a Reference Point (RP) coding method. This work is currently performed manually by DSP-BSS-CRU "RP Crash Coding" staff in coordination with DTIM. Typical time for RP coding takes weeks to months from the date of the crash and the same for processing and analysis based on the data for the users.
Grantees should expect to provide documentation that the grant has improved a core state safety database. Describe one specific and quantitative improvement to a

core state traffic safety database that can be expected within one calendar year of grant approval:

Improve the efficiency and timeliness of the Reference Point Coding process by taking advantage of the capabilities of the improved location data, crash database and resolve system and the soon to be developed Link-Link eliminating a significant burden of manual data processing and reconciliation. The quality factors most improved will be Timeliness, Accuracy, Completeness and Accessibility.

Provide a baseline measure for this specific and quantitative improvement:
Automation of reference point coding allows for data integration with STN based roadway information allowing these data to be incorporated into the crash database. This will improve all aspects of crash data quality by implementing a near real time reference point coding of crashes and the availability to data users as crashes are received and consistency checks backed by prompt and systematic data queries.

Project Objectives:
Develop within resolve system the data fields and workflows to automate the Reference Point Coding processes to improve timeliness and accuracy of crash location data.

Develop automation tools (algorithms and data) to implement real time RP coding.

Itemized Budget: We are requesting $50K to pay for the BITS IT development services (for contractors' effort only).

Project end date: As per the plan, the project end date is June 30, 2020. If we don't get BITS and TOPS resources on time, the end date may be changed to September 30, 2020.

4. **Project Title**: Wisconsin CODES Project
   Organization Name: Center for Health Services Research & Analysis
   Project Coordinator and Contact Information: Jim Robinson
   jim@chsra.wisc.edu
   Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
   Crash
   - o Citation or Adjudication
   - o Driver
   - o **EMS or Injury Surveillance System**
   - o Roadway
   - o Vehicle

   Proposed Attribute of Data to Improve (*choose only one*):
   - o Accuracy
   - o Completeness
   - o Timeliness
   - o Uniformity
   - o Accessibility
   - o **Integration**

   Problem Identification (Reference the Traffic Records Assessment, if applicable.)

The availability of data which combines crash related information with health outcomes data is critical for the evaluation of the traffic safety related efforts by Federal and State transportation agencies, as well as for State and local public health and law enforcement officials. Without linked traffic/health outcomes data it is difficult, if not impossible, to fully evaluate the impact of motor vehicle crashes on the health and safety of communities, and the success of traffic safety projects and demonstrations.

Grantees should expect to provide documentation that the grant has improved a core state safety   database. Describe one specific and quantitative improvement to a core state traffic safety database that can be expected within one calendar year of grant approval. CODES linked crash/health data will be available for calendar year 2018 data Provide a baseline measure for this specific and quantitative improvement. Currently full CODES linked data is available for 2000-2017. Associated public use files are available for 1994-2018.

Project Objectives:
- Continue improving the Wisconsin CODES online Report Builder system for use by WDOT and the public.
- Work with the BOTS and the Bureau of Health Information and Policy to link crash and health outcome data for CY 2018;
- Working with DHS in providing extracts for linkage to other states as DHS acquires hospital and ED data for linkage to existing files for CY 2018.
- Adding linked data from other states to existing (and future) CODES data and public use data as it becomes available.
- Developing additional data to improve the linked data, such as:
  - ➢ Injury severity information
  - ➢ Injury cost estimates
  - ➢ FIPS community and county related information
- Produce reports for WI's counties and communities on crash injuries and costs using 2013-2017 linked data
- Provide passenger, pedestrian, bicyclist, alcohol use and motorcycle crash injury/outcome reports.
- Provide hospital E-Code based Hospital/ED injury reports for WI's public health organizations and Safe Communities coalitions for CY 2017 data.
- Work with DHS/OHI to provide injury severity information for their inpatient discharge and emergency department data for 2018.
- Develop quality indicators for CODES linked data.
- Creating special reports for BOTS on request, including an annual update for the report relating to the costs related to passenger vehicle occupants not wearing seatbelts and a report relating the costs and injury consequences related to motorcycle riders not wearing helmets.
- We will also continue our efforts to publicize CODES by working with the Traffic Records Coordinating Committee, making presentations to county level TSCs, presenting to and/or working with the WI Injury Research Center in order to facilitate their use of linked data.
- Providing CODES data to governmental, educational and non-profit organizations as requested.

- Work with crash database work group or a subset to create a feedback loop for MAIS and KABCO values to improve the feedback loop with LEA.

Budget:$129,389

5. **Project Title**: 2020 CODES Traffic Crash Linkage
   Organization Name: Office of Health Informatics, Division of Public Health, Department of Health Services
   Project Coordinator and Contact Information: Erica Garcia-Lago, Erica.GarciaLago@dhs.wisconsin.gov
   Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
   - **Crash**
   - Citation or Adjudication
   - Driver
   - EMS or Injury Surveillance System
   - Roadway
   - Vehicle

   Proposed Attribute of Data to Improve (*choose only one*):
   - Accuracy
   - **Completeness**
   - Timeliness
   - **Uniformity**
   - Accessibility
   - Integration

   Problem Identification (reference the Traffic Records Assessment, if applicable):
   Many federal, state, and local government entities as well as researchers, community organizations, and other stakeholders utilize Wisconsin Traffic Crash (WTC) reports for injury-related surveillance and epidemiologic research, and for program planning, evaluation, and administration at the national, state, and local levels. In order to fully understand the human, medical, and financial costs of traffic crashes and use this information to improve traffic safety, it is imperative that the WTC data are fully accurate and complete. This project addresses the Data Use and Integration recommendations outlined in the most recent State of Wisconsin Traffic Records Assessment by enhancing the completeness and accuracy of the WTC data.
   The Wisconsin CODES Project will link the 2019 WTC data to hospital inpatient and emergency department (ED) data from Wisconsin, Minnesota, and Iowa as well as to data from the Wisconsin Ambulance Run Data System (WARDS). In addition—and new this year—we will link this combined dataset with Wisconsin Trauma Registry data. These linkages create matches of individual records across datasets, which in turn creates a much more robust and complete dataset with many more indicators, measures, and information about each traffic incident. The linked CODES dataset provides a more complete and accurate picture of traffic crashes and safety needs throughout Wisconsin.
   The Department of Health Services (DHS) Office of Health Informatics (OHI) is the public sector repository for the Wisconsin Hospital Patient Data Systems. OHI

developed the Wisconsin CODES linkage process for years 2002 – 2018 under previous Highway Safety Project Agreements. OHI has used its familiarity with the individual files and its role as data custodian to utilize both public and confidential data elements to create the most effective and efficient record-linkage process. New linkages with the Trauma Registry data can provide even more detailed information about injury events, demographics, pre-hospital information, etc. In addition, we will explore the possibility of further refining and augmenting the linked data records with additional data sources such as Prescription Drug Monitoring Program (PDMP) data, and various opioid-related data and datasets currently managed by OHI staff. The misuse and abuse of opioids is a public health crisis in Wisconsin and nationwide. Linking opioid-related data to the combined CODES dataset will allow data users to further explore the relationship between use and abuse of prescribed (PDMP data) or illegally obtained opioids and traffic crashes throughout Wisconsin.

Linking data from Iowa and Minnesota for Wisconsin residents allows for a more accurate and complete picture of Wisconsin residents who were involved in traffic crashes in Wisconsin but were treated out of state. Including these records greatly improves data accuracy and completeness for several of Wisconsin's border counties (e.g., Grant and Lafayette counties from Iowa data; Douglas, Burnett, Polk, St. Croix, Pierce, and Buffalo counties from Minnesota data). For our 2020 CODES project, we will continue to negotiate the receipt of hospital inpatient and ED records for Wisconsin residents involved in traffic crashes in Wisconsin who were treated in Michigan and Illinois. Incorporating records from Michigan and Illinois should improve data accuracy and completeness for additional Wisconsin border counties (e.g., Iron, Vilas, Florence, Forest, and Marinette from Michigan data; Lafayette, Green, Rock, Walworth, and Kenosha from Illinois data). Before the CODES linkages between datasets can occur, OHI must prepare and update the hospital inpatient and ED data in the Wisconsin Hospital Patient Data Archive. The Archive has a record for every inpatient stay in a Wisconsin hospital since 1989 (about 620,000 stays annually) and every Emergency Department (ED) visit since 2002 (about 1,500,000 visits annually). It also has hospital inpatient and ED visit records for Wisconsin residents treated in Minnesota hospitals since 2000 (about 22,000 and 30,000 annually, respectively) and in Iowa hospitals (about 1,600 and 3,400 annually, respectively). Each record has diagnosis and procedure data, patient demographics, dates, and other related information. OHI receives records from the Wisconsin, Iowa, and Minnesota Hospital Associations in complex, non-standard formats. OHI staff prepare, document, and archive the datasets in a standard format to make them more accessible to those performing injury surveillance throughout Wisconsin as well as to allow for more effective matching and linkage with other public health and state databases. As part of our 2020 CODES project, we will update the Wisconsin Hospital Patient Data Archive with 2019 hospital inpatient and ED data from Wisconsin, Iowa, and Minnesota.

Public-use versions of the datasets used by OHI for the CODES linkage project can be obtained through several means. State and local agencies can access hospital inpatient and ED data by entering into a Data Use Agreement with DHS/OHI. Non-government entities, academic institutions, the media, or the general public can purchase public-use versions of the data from the Wisconsin Hospital Association's Information Center (WHAIC) or from the federal Agency for Health Research and

Quality (AHRQ). Custom requests for hospital inpatient and ED data and analyses can be filled by OHI for a modest fee.

Aggregate-level data are available for free through OHI's Wisconsin Interactive Statistics on Health (WISH) data query system (https://www.dhs.wisconsin.gov/wish/index.htm). Here, data users can access injury-related data (which include traffic crash victims) through any of the following modules:

- Injury-Related Mortality
- Injury-Related Hospitalizations
- Injury-Related Emergency Department Visits

Each module includes several categories of traffic crashes and non-traffic crashes, and shows counts, rates, and hospital charges at the county level by age, sex, month of crash, and other analytics. The data in WISH are updated annually.

Grantees should expect to provide documentation that the grant has improved a core state safety database. Describe one specific and quantitative improvement to a core state traffic safety database that can be expected within one calendar year of grant approval: Data from the Wisconsin Traffic Crash database will be linked with several other datasets in order to match records across datasets. This, in turn, will provide a more robust and comprehensive dataset that will yield greater and more detailed information about traffic crashes throughout Wisconsin.

Provide a baseline measure for this specific and quantitative improvement: The number of data points, variables, and indicators related to traffic crashes will increase as the result of linking several datasets together.

Project Objectives:

Objective 1: (100 hours; all matching) Continue to enhance data accuracy and completeness by further developing procedures for efficiently processing quarterly additions from Wisconsin, Minnesota, and Iowa hospitals and Emergency Departments to the Wisconsin Hospital Patient Archive, thus facilitating higher quality data linkages with other public health and state databases.

Objective 1 Evaluation: A project status report will describe the routine procedures for efficiently cleaning, processing, and standardizing quarterly Wisconsin, Minnesota, and Iowa hospital data received in a timely manner.

Objective 2: (160 hours) Create the basic CODES file linkages for 2019 data between Wisconsin Traffic Crash records and Wisconsin Hospital Inpatient records, Wisconsin Hospital Emergency Department Visit (ED Visit) records, WARDS records, and Wisconsin Trauma Registry records.

Objective 2 Evaluation: Linkage of 2019 Wisconsin Traffic Crash, Wisconsin Hospital Inpatient, Wisconsin ED Visit, WARDS, and Wisconsin Trauma Registry records is completed and documented with statistics on the quality of the record linking results in the final project report.

Objective 3: (160 hours) Create the basic CODES file linkages for 2019 data between Wisconsin Traffic Crash records and Minnesota Hospital Inpatient records, Minnesota Hospital Emergency Department Visit (ED Visit) records, WARDS records, and Wisconsin Trauma Registry records, Linkage of 2019

Wisconsin Traffic Crash, Minnesota Hospital Inpatient, Minnesota ED Visit, WARDS, and Wisconsin Trauma Registry records is completed and documented with statistics on the quality of the record linking results in the final project report.

Objective 3 Evaluation: Linkage of 2019 Wisconsin Traffic Crash, Minnesota Hospital Inpatient, Minnesota ED Visit, WARDS, and Wisconsin Trauma Registry records is completed and documented with statistics on the quality of the record linking results in the final project report.

Objective 4: (160 hours) Create the basic CODES file linkages for 2019 data between Wisconsin Traffic Crash records and Iowa Hospital Inpatient records, Iowa Hospital Emergency Department Visit (ED Visit) records, WARDS records, and Wisconsin Trauma Registry records.

Objective 4 Evaluation: Linkage of 2019 Wisconsin Traffic Crash, Iowa Hospital Inpatient, Iowa ED Visit, WARDS, and Wisconsin Trauma Registry records is completed and documented with statistics on the quality of the record linking results in the final project report.

Objective 5: (60 hours) Explore the possibility of linking CODES files with other data sources such as PDMP data and other opioid-related datasets.

Objective 5 Evaluation: Preliminary, proof-of-concept linkages with other appropriate and related data sources are created and the quality of the resulting dataset is assessed to determine if additional data provides additional information to enhance and augment the CODES dataset.

Objective 6: (150 hours plus 50 hours matching) Explore the possibility of creating reciprocal data exchange relationships with Michigan and Illinois hospitals and Emergency Departments, thus enhancing the accuracy and completeness of data received from Wisconsin counties bordering these states.

Objective 6 Evaluation: A detailed report will be created which includes documentation of conversations, agreements reached, required steps and processes, policies and statutes to consider, and legal guidance on pursuing a reciprocal data exchange relationship with Michigan and Illinois hospitals and Emergency Departments.

Objective 7: (85 hours) Improve data completeness and uniformity by extending record linkages to include the matching of Hospital Inpatient and Emergency Department records to death records over the 2018 period. These matches capture the long-term effects of injuries on mortality rates.

Objective 7 Evaluation: A project status report will describe progress towards extending record linkages to include the matching of 2018 hospital inpatient and ED visit records to death records during the same period.

Objective 8: (75 hours) Form a Hospital Data User Group that will provide advice and consultation to hospital data users, encouraging deeper analysis of crash data.

Objective 8 Evaluation: A project status report will describe the number of Hospital Data User Group meetings held and crash injury-related consultations completed.

Budget: $56,774

6.   **Project Title**: WisTransPortal Safety Data Warehouse Data Linkage Prototype
Organization Name: UW-Madison TOPS Lab
Project Coordinator and Contact Information: Dr. Steven Parker & Andi Bill
Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
- o **<u>Crash</u>**
- o Citation or Adjudication
- o **<u>Driver</u>**
- o **<u>EMS or Injury Surveillance System</u>**
- o Roadway
- o Vehicle

Proposed Attribute of Data to Improve (*choose only one*):
- o Accuracy
- o Completeness
- o Timeliness
- o Uniformity
- o Accessibility
- o **<u>Integration</u>**

Problem Identification (Reference the Traffic Records Assessment, if applicable.):
Recent improvements to crash data collection and management in Wisconsin have afforded the opportunity to develop linkages from the Wisconsin crash database to external data sources in order to enhance overall safety analysis capabilities. Realizing the full potential of this opportunity is a multiyear undertaking that will require upfront planning and iterative development to incorporate project objectives from the Wisconsin Department of Transportation (WisDOT) crash data pipeline planning process. A foundational data modeling and system architecture planning effort is starting under the 2018 TRCC project. This project will build upon that foundation through a prototype integration of one external dataset, to be determined in coordination with the Bureau of Transportation Safety (BOTS) at the outset of the project period. Potential datasets include Toxicology report data from the Wisconsin State Hygiene Laboratory and Wisconsin driver citation records.
Provide a baseline measure for this specific and quantitative improvement:
# of data elements that can be linked together in the data warehouse
Baseline: 0 data elements
Project Objectives:
This project would apply the foundational results from the 2019 project to link a critical dataset to improve data driven safety research, analysis, and decision support on the WisTransPortal. It would also test the effectiveness of the architectural model to support a longer term build out of a crash data warehouse based on the NHTSA traffic safety information system "honeycomb" model for connected datasets, a fundamental long-term goal of the new DT4000 crash database and for the associated WisDOT crash data pipeline project process.

The linkage process would be able to outline what is needed to link records from the State Lab of Hygiene to the Crash Database.

Budget: $25,000

7. **Project Title:** Community Maps

   Organization Name: UW-Madison TOPS Lab

   Project Coordinator and Contact Information: Dr. Steven Parker Sparker@engr.wisc.edu

   Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
   - o **Crash**
   - o Citation or Adjudication
   - o Driver
   - o EMS or Injury Surveillance System
   - o Roadway
   - o Vehicle

   Proposed Attribute of Data to Improve (*choose only one*):
   - o Accuracy
   - o Completeness
   - o Timeliness
   - o Uniformity
   - o **Accessibility**
   - o Integration

   Problem Identification (Reference the Traffic Records Assessment, if applicable.):

   Each year, thousands of Wisconsin residents are injured and killed in traffic crashes. In an effort to prevent these tragedies, the legislature has established a Traffic Safety Commission (TSC) in every county. These commissions are charged, per Wisconsin statute 83.013 (1), to maintain a map of traffic crashes within their county and to review those crashes on a quarterly basis for general awareness and to provide recommendations for corrective action, as appropriate. Because of the complexity of traffic crashes, the legislature required a breadth of expertise to serve on these commissions. TSC membership creates a collaboration of stakeholders dedicated to reducing injuries and death on their roadways locally, regionally and statewide.

   In support of the TSC mission, the Community Maps system was developed by the Wisconsin Department of Transportation (WisDOT) Bureau of Transportation Safety (BOTS) in partnership with the Wisconsin Traffic Operations and Safety (TOPS) Laboratory at the University of Wisconsin-Madison to provide an accessible and timely map of traffic crashes for each county. Community Maps is updated on a nightly basis from the WisDOT crash database management system and includes a record of all police reported crashes in Wisconsin for which geo-coded locations are available. Crash records that have not been geo-coded are included in the total number of crashes for a given jurisdiction but are not displayed on the map. The Community Maps system serves as an integral component of the County TSC quarterly meetings and as a vital information resource for ongoing collaborative efforts at all levels of government and within local communities to address traffic safety needs.

   Provide a baseline measure for this specific and quantitative improvement:

# of Users
# of Advanced Query Logins
Project Objectives:
A major update to the Community Maps system was rolled out in January 2018 to integrate the WisTransPortal DT4000 crash data as the primary source data in Community Maps. This roll out was coordinated with a significant outreach effort to the County TSCs and Wisconsin State Patrol regional dispatch centers. Community Maps is now updated on a nightly basis and includes crash records for all crash severity levels. The 2020 project will provide system support and prioritized enhancements to the Community Maps system to build out reports and other visualization as prioritized by the steering committee. Specific objectives include improvements to Community Maps analytics and reporting capabilities and enhancements to the TSC Resources area.
Budget: $90,000

8. **Project Title**: WisTransPortal Predictive Crash Research & Development
   Organization Name: UW-Madison TOPS Lab
   Project Coordinator and Contact Information: Dr. Steven Parker
   sparker@engr.wisc.edu
   Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
   - o **Crash**
   - o Citation or Adjudication
   - o Driver
   - o EMS or Injury Surveillance System
   - o Roadway
   - o Vehicle

   Proposed Attribute of Data to Improve (*choose only one*):
   - o Accuracy
   - o Completeness
   - o Timeliness
   - o Uniformity
   - o **Accessibility**
   - o Integration

   Problem Identification (Reference the Traffic Records Assessment, if applicable.):
   Recent advances in crash data collection and management in Wisconsin have afforded the opportunity to improve the effectiveness of traffic safety enforcement activities through data driven resource allocation. Initial "predictive analytics" decision support capabilities were developed during the 2017 project year and are in the process of being rolled out statewide in the form of a new heat map enabled crash analysis interface in the Community Maps system and automated crash map layers in the Wisconsin State Patrol MACH system. Backend processes for this automation were developed along with visualization capabilities to support law enforcement agency (LEA) resource allocation for a range of user defined scenarios. Longer term objectives, which will be started during the 2018 project year, are to build upon the 2017 rollout through algorithm and reporting improvements, and the development of performance measures. When completed, this project will establish a critical feedback loop between

crash reporting and LEAs. It will also allow LEAs to act more proactively to prevent crashes, rather than by responding to them.

Provide a baseline measure for this specific and quantitative improvement:
# of logins to Analyze tab of Community Maps
# of HVE due to Predictive Analytics

Project Objectives:
This project will allow the UW TOPS Lab to continue researching and developing best practices for predicting where and under what conditions crashes occur. This would allow LEAs—and the State Patrol in particular—to expend resources in the most efficient manner possible by being in place where and when crashes are most likely to occur. This visibility will lessen risky driver behaviors and may also allow for better crash outcomes by lessening response times. Specific objectives will include algorithmic improvements based on performance results from the new system and continued evaluation of previous pilots. TOPS Lab will be available to help DSP MACH group to help add layers into MACH as needed.

Itemized Budget: $65,000

9. **Project Title**: Modernize the Fatality Analysis Reporting System (FARS) processes and Improve the Crash Data Finalization processes
    Organization Name: UW-Madison TOPS Lab
    Project Coordinator and Contact Information: Dr. Steven Parker
    sparker@engr.wisc.edu

    Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
    - o **Crash**
    - o Citation or Adjudication
    - o Driver
    - o EMS or Injury Surveillance System
    - o Roadway
    - o Vehicle

    Proposed Attribute of Data to Improve (*choose only one*):
o Accuracy	o Uniformity
o Completeness	o Accessibility
o **Timeliness**	o Integration

    Problem Identification (Reference the Traffic Records Assessment, if applicable.):
    Current FARS processes are designed around the accident system (prior to Jan 01, 2017). These activities are supported by an in-house developed Access Database (DB). There is currently no connection between this accident system and the new crash database and resolve system (from Jan 01, 2017). FARS workflows and reporting are managed entirely manually. This project would develop the crash database and resolve system features needed to modernize these processes so as to take full advantage of the new Crash Database and Resolve Systems. This project would eliminate the FARS manual processes, improving crash fatality data quality and timeliness.

After the new Crash Database and Resolve System go live on Jan 2017, we (TOPS, BOTS and BSS) had to put lot of effort to finalize the 2017 crash data. Which took more than 6 months of our time to release the annual crash data to all the stakeholders. Please find list of consistency checks we performed below in the excel sheet.

Provide a baseline measure for this specific and quantitative improvement: Time that it takes a crash to be processed by FARS processor

Project Objectives:

Improve the FARS processes by taking advantage of the capabilities of the crash database and resolve system, eliminating a significant burden of manual (and often paper based) data processing and reconciliation. These process improvements will improve all aspects of fatal crash data. The quality factors most improved will be Timeliness, Accuracy, Completeness and Accessibility. Improve all aspects of crash data quality by implementing a near real time system of data consistency checks backed by prompt and systematic data queries. As crash data quality improves in response to this systematic approach and system improvements that it inspires (e.g. crash form enhancements, better training and documentation and adoption of agency best practices), more refined checks can be implemented within this framework to facilitate continuous data quality improvements.

Itemized Budget: Remaining from the 2019 grant (~$100,000)

10. **Project Title**: Connected and Autonomous Vehicles (CAV) Safety Data Requirements

    Organization Name: University of Wisconsin-Madison

    Project Coordinator and Contact Information: Andrea Bill, 608 890 3425, bill@wisc.edu

    Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
    - **Crash**
    - Citation or Adjudication
    - Driver
    - EMS or Injury Surveillance System
    - Roadway
    - Vehicle

    Proposed Attribute of Data to Improve (*choose only one*):
    - **Accuracy**
    - Completeness
    - Timeliness
    - Uniformity
    - Accessibility
    - Integration

    Problem Identification (Reference the Traffic Records Assessment, if applicable.):

    The rapid proliferation of connected and automated vehicle (CAV) technologies offers many benefits, but this is very disruptive to transportation, regulation, liability, and enforcement. With this proliferation comes new needs from transportation agencies and law enforcement. These needs can partly be met with good data, but therein lies the challenge, and it is urgent. New, disparate,

proprietary, and big data are being created already, but access to it for safety and enforcement purposes is currently nil.

Law enforcement agencies need access to certain information to be able to do their duties in the event of a crash or incident on roadways. Law enforcement agencies will need direct and timely access to information about the operation of the vehicle and the circumstances at the time of crash. The on-board event data recorder (EDR) has been incredibly valuable and will continue to be so. However, the EDR is quickly falling behind the myriad new technologies in vehicles controlling communications, dynamic vehicle control, and safety response. New and emerging vehicles have additional data loggers tied to any number of different systems, e.g., location, telematics, sensors (radar, lidar, sonar, camera, etc.), various advanced driver assist systems (ADAS, e.g., dynamic cruise control, lane keeping, collision avoidance, etc.), and power and communications systems. Perhaps some of this could be added to the EDR.

In this project, we will collaborate with Wisconsin State Patrol (WSP) to identify the data needs from a traffic records coordinating perspective. Minimum data requirements will be developed analogous to FHWA's Model Minimum Uniform Crash Criteria. The team will define the minimum amount of data that needs to be accessible to law enforcement to execute their duties.
Grantees should expect to provide documentation that the grant has improved a core state safety database. Describe one specific and quantitative improvement to a core state traffic safety database that can be expected within one calendar year of grant approval:

This is a foundational project to study the availability of CAV data and use cases and opportunities for that data in the traffic safety records context. It will support future TRCC project planning related to emerging CAV data and technologies.
Provide a baseline measure for this specific and quantitative improvement: # of data elements that are needed to be accessible to LEO to execute their duties
Current Baseline: 0 data elements have been defined.
Project Objectives:
Identify the data needs as related to CAV operation from a traffic records coordinating perspective.
Define the minimum amount of data that needs to be accessible to law enforcement to execute their duties.
Itemized Budget: $50,000
11. **Project Title**: Uniformity of Crash Reconstruction Data Preservation: Interjurisdictional Partnering
Organization Name: Wisconsin State Patrol
Project Coordinator and Contact Information: Trooper Michael Marquardt
Core State Safety Database to Improve (*choose only one, unless selecting integration below*):

- o **Crash**
- o Citation or Adjudication
- o Driver
- o EMS or Injury Surveillance System
- o Roadway
- o Vehicle

Proposed Attribute of Data to Improve (*choose only one*):

- o Accuracy
- o Completeness
- o Timeliness
- o **Uniformity**
- o Accessibility
- o Integration

Problem Identification (Reference the Traffic Records Assessment, if applicable.):

The NHTSA published "Traffic Records Program Assessment Advisory" states under section 1-B's advisory excerpt, "The TRS should operate in a fashion that supports the traffic and safety planning process. The planning process should be driven by a strategic plan that helps state and local data owners identify and support their overall traffic safety program needs and addresses the changing needs for information over time." Specifically, it states under the guise of "Strategic Planning of Training and Quality Control", the strategic plan should incorporate activities for identifying and addressing data quality problems, especially as these relate to training needs assessments and training implementation.

The Wisconsin State Patrol (WSP) is the primary training provider within the State of Wisconsin for crash reconstruction, forensic mapping, and technical crash investigation training.   The WSP not only trains its own agency members, it provides instruction to county and local law enforcement agencies in the use and application of standardized crash scene measurement protocol. Specifically, the most recent Forensic Mapping instructional course taught by the WSP included 15 different county and local police agencies. During this instructional course, over six different data collection platforms were being used, creating a lack of standardized equipment, resulting in extensive challenges in providing uniform training standards, with observed, and consistent data quality issues.

With the implementation of the new State of Wisconsin crash reporting form (DT4000), data collection indicating the existence of a detailed crash reconstruction was added as a pointer to investigators, analysists and experts. Uniformity of data capture and collection during these crash reconstructions, through standardized forensic mapping protocol, is critical to the accuracy of future data analysis. Uniform equipment, training and standards is the foundation that provides this data.

In addition, there is currently no consistency in DT4000 authoring agencies, to review completed crash reconstruction investigations, and to then amend the initial DT4000 to reflect data changes identified during the more detailed crash

reconstruction analysis. Uniformity of data collection and accurate data recording is critical to the end user to ensure proper research outcomes.

Provide a baseline measure for this specific and quantitative improvement
Data collection through uniform equipment, training and data capture protocol will be documented within the DT4000 as an agency crash reconstruction, with the crash data preserved in investigative files, and noted discrepancies between the original DT4000 and the more detailed crash reconstruction analysis identified, with an amended DT4000 completed and submitted.

Provide a baseline measure for this specific and quantitative improvement:
Within the pilot projects listed below, the primary investigative agency is not listed as the investigative crash reconstruction liaison. The DT4000 will reflect the primary reconstructive agency in these cases, which will allow for quantitative accountability within this project. Additionally, as previously indicated, amended DT4000 data will be updated within the DT4000 database as it is identified during the more detailed crash reconstruction analysis.

Finally, use of the provided equipment will be documented via the TRAC's case management database by identifying each use through an authored "Task", allowing for a final program period audit.

Project Objectives:
In addressing this critical need, the WSP has created three pilot programs with the Marathon County Sheriff's Department, the Marquette County Sheriff's Department and the Waukesha County Sheriff's Department. These three agencies represent small, mid-range and large departmental organizations, with each of these agencies providing unique data collection challenges. Currently, there are additional agencies interested in pursuing similar pilot programs. Within these pilot programs, the WSP intends to supplement local resources with standardized equipment, training and analytical support for crash scene reconstructions. Similar programs meeting State TRCC guidelines, sponsored and managed by State level law enforcement agencies, have been successfully implemented in both Ohio and Tennessee. The WSP seeks to enhance and expand these local law enforcement partnerships, with the intent of providing uniform data collection equipment, while addressing concomitant training and data collection protocols.

In addition to consistent and uniform training and equipment, as a part of this pilot program, the WSP will review DT4000's produced during the initial stages of the partnered crash investigations, and will update these DT4000's where identified discrepancies are noted between the original data and the more detailed crash reconstruction analysis. This process will ensure that an amended DT4000, with this more current data, is submitted through the TRAC's database.

Finally, the WSP will be enacting an information sharing program, involving the Medical College of Wisconsin (MCW) and the University of Wisconsin, Traffic and

Operations Safety Laboratory (TOPS), where data, gathered through the use of the grant provided equipment, meeting research specific criteria, will be advanced to these research entities via notifications through the TRAC's database. This will allow for a timely understanding of these crash events, and will present the researcher with real world, crash specific point cloud data.

Itemized Budget:

4 Trimble SX 10 Scanning Total Stations and support equipment $172,125.00
4 TSC7 Trimble Access Data Controllers for the above total stations $35,933.00

Total $208,058.00

12. **Project Title**: Pedestrian Exposure Data. WisDOT Southeast Region Pilot Study

Organization Name: University of Wisconsin-Milwaukee

Project Coordinator and Contact Information: Dr. Robert J. Schneider, rjschnei@uwm.edu and Dr. Xiao Qin, qinx@uwm.edu

Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
  o **Crash**
  o Citation or Adjudication
  o Driver
  o EMS or Injury Surveillance System
  o **Roadway**
  o Vehicle

Proposed Attribute of Data to Improve (*choose only one*):
  o Accuracy   o Accessibility
  o Completeness   o **Integration**
  o Timeliness
  o Uniformity

Problem Identification (Reference the Traffic Records Assessment, if applicable.):

"Improve Non-Motorist Safety" is one of ten "Highest Priority Issue Areas" in the Wisconsin Strategic Highway Safety Plan (SHSP), 2017-2020. Between 2012 and 2016, pedestrians accounted for 8.9% of all traffic fatalities (45 per year), 8.1% of all incapacitating injuries (211 per year), and 2.9% of all injuries (1,199 per year). However, pedestrian fatalities, serious injuries, and overall injuries all increased in 2017 and 2018. Nationally, annual pedestrian fatalities increased 48% between 2009 and 2016, reaching their highest level in nearly three decades. Since everyone is a pedestrian, reducing the impact of pedestrian crashes is important for the health and vitality of every resident in Wisconsin. The SHSP Action Plan for "Improve Non-Motorist Safety" recommends engineering, education, and enforcement countermeasures to achieve its goals. However, in order to prioritize locations for pedestrian safety improvements and understand which types of countermeasures will be the most effective at reducing pedestrian crash risk in different contexts along the Wisconsin State Highway System, WisDOT must first address the fundamental problem of not having data on pedestrian exposure (e.g., the number of pedestrians who cross at a specific location during a given time period).

The underlying risk of any pedestrian crossing can be represented as the number of pedestrian crashes divided by pedestrian exposure. Yet, like most other states, pedestrian crossing volumes are missing from current WisDOT roadway databases, including the Wisconsin Information System for Local Roads (WISLR) and the TC Map. By comparison, motor vehicle volumes are available as annualized average daily traffic (AADT) estimates throughout the State Highway System.

The lack of pedestrian exposure data available to integrate with Wisconsin's traffic crash database creates several obstacles for analyzing pedestrian safety:

- First, analysts may attempt to identify pedestrian safety problems simply using absolute numbers of pedestrian crashes. These crashes tend to cluster in locations with the most pedestrians, such as downtown areas and near major activity centers. These locations do not necessarily have the most significant safety problems, measured in terms of risk (e.g., pedestrian crashes per million crossings).
- Second, when comparing crash data before and after a pedestrian safety improvement project absolute numbers of pedestrian crashes are likely to mask the true reduction in pedestrian risk. This is because pedestrian volumes are likely to increase after a safety improvement project.
- Third, along with motor vehicle volumes, roadway design attributes, and pedestrian crossing facilities, pedestrian volumes are a critical predictive variable to include in safety performance functions (SPFs). SPFs are a central component of the systemic approach to improving transportation safety (promoted by the Federal Highway Administration), which allows agencies to make improvements proactively based on underlying risk throughout a highway system.

Some analysts have attempted to overcome the lack of pedestrian exposure data using proxy variables such as population and employment density, but these lack the specificity and accuracy of actual counts and modeled pedestrian volume estimates. Better pedestrian exposure data is critical for better pedestrian safety analysis and ultimately better pedestrian safety outcomes in Wisconsin.

This project will create the foundation to provide pedestrian exposure data for the Wisconsin State Highway System. It will include two components: 1) a statewide pedestrian count program (like Minnesota), and 2) a pedestrian exposure model for the state highway system (like California). Both components will be developed as a pilot initiative in the seven counties of the WisDOT Southeast Region. Dr. Robert Schneider, the principal investigator, has conducted similar pedestrian exposure data collection and modeling efforts in California.

The pedestrian count program will establish at least five long-term, continuous pedestrian count stations along sidewalk and trail segments in different parts of the region (including taking advantage of several existing WisDOT automated

counters). These count stations will provide total annual pedestrian volumes and pedestrian activity patterns throughout the year. Additionally, the program will compile short-term (2-hour and 10-hour) pedestrian counts to extend geographic coverage (e.g., greater representation of urban and rural highways as well as a variety of surrounding land use contexts). Some short-term intersection crossing counts have already been collected by WisDOT and other agencies in the Southeast Region, but they will be supplemented with new mid-block crossing counts (since crossings between intersections are where some of the most severe pedestrian injuries occur). The short-term counts will be expanded to annual pedestrian volume estimates using the long-term pedestrian activity pattern data.

The pedestrian exposure model will use the annual pedestrian crossing volumes generated from the pedestrian count program as its dependent variable. To develop the model, the research team will compile land use, transportation system, and neighborhood socioeconomic variables that may be associated with annual pedestrian volumes. It will then estimate count-based statistical models and identify a preferred model to predict annual pedestrian crossing volumes at intersections and at mid-block locations. Additional data not used during the model estimation phase will be reserved to conduct validation testing and evaluate the accuracy of the model.

Together, the pilot pedestrian count program and exposure model will provide cost estimates and other lessons that can be used to expand the initiative to the entire Wisconsin State Highway System.

Provide a baseline measure for this specific and quantitative improvement:
Existing capabilities to conduct pedestrian safety analyses using crash report databases are limited by a lack of pedestrian exposure data. This research project will jump-start a statewide pedestrian exposure database. Integrating these two data sources will make it possible to estimate pedestrian crash risk (e.g., pedestrian crashes per million crossings), conduct more informative before and after safety studies, and understand and ultimately mitigate pedestrian risk throughout the Wisconsin State Highway System.

Provide a baseline measure for this specific and quantitative improvement:
The pilot study should compile long-term continuous pedestrian counts at a minimum of five sidewalk or multi-use trail crossings that can be used to represent pedestrian activity patterns and expand short-term counts to annual estimates along the State Highway System in the WisDOT Southeast Region. It should also provide an initial database of short-term pedestrian crossing volumes at more than 200 intersections and more than 50 mid-block locations. The pedestrian exposure model should provide annual pedestrian crossing volume estimates at more than 1,000 locations. These new pedestrian exposure data can then be integrated with reported crash data at each of the locations to provide pedestrian crash risk estimates (e.g., pedestrian crashes per million pedestrian crossings).

Project Objectives:
Provide pedestrian exposure estimates for intersection crossings and mid-block roadway crossings along the Wisconsin State Highway System in the seven counties of the WisDOT Southeast Region. To do this: 1) establish semi-permanent traffic monitoring stations to collect long-term pedestrian counts; 2) augment the long-term counts with short-term counts to expand geographic coverage; and 3) develop a statistical model to estimate pedestrian volumes at all other locations. Finally, provide guidance for expanding the pilot study to the entire Wisconsin State Highway System.

Itemized Budget: $50K
(includes: Establish network of locations for long-term, continuous pedestrian counts; Compile existing and collect new short-term pedestrian counts to expand geographic coverage; Use long-term count data to quantify daily, weekly, and seasonal patterns of pedestrian activity; Expand short-term pedestrian counts to annual volume estimates; Compile land use, transportation system, and neighborhood socioeconomic variables for pedestrian volume modeling; Estimate count-based statistical models and identify a preferred model to predict annual pedestrian volumes at highway crossings; Conduct validation testing; Write summery report, including recommendations for expanding The pedestrian exposure initiative to the full State Highway System)

13. **Project Title**: Using Text Data from the DT4000 to Enhance Crash Analysis
Organization Name: University of Wisconsin-Milwaukee
Project Coordinator and Contact Information: Dr. Xiao Qin, qinx@uwm.edu;
Dr. Steven Parker, sparker@engr.wisc.edu
Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
   o **<u>Crash</u>**
   o Citation or Adjudication
   o Driver
   o EMS or Injury Surveillance System
   o Roadway
   o Vehicle

Proposed Attribute of Data to Improve (*choose only one*):
   o **<u>Accuracy</u>**   o Accessibility
   o Completeness   o Integration
   o Timeliness
   o Uniformity

Problem Identification (Reference the Traffic Records Assessment, if applicable.):
Wisconsin Motor Vehicle Accident Reports (MV4000 and DT4000) are the most useful and valuable source for analyzing crashes and identifying crash contributing factors. Most information of a crash is filled in by law enforcement agencies in appropriate data fields and later stored in a database, so called structured data. However, a significant amount of information is presented in unstructured text such as crash narratives. A crash narrative is the detailed description of a crash by law enforcement officers. Although it is a common

practice to manually review crash reports to collect valuable information from crash diagram and narrative, the process is time-consuming and labor intensive; and the interpretation of a crash depends on a reviewer's experience, knowledge and judgment.

Automatic information extraction through text mining techniques is predictable, consistent, and efficient. A crash narrative can be converted to a numeric vector suitable for machine learning, a process often referred to as feature extraction. Text mining results can be used to assess the quality of crash flags (e.g., work zone, secondary crash). Vehicle actions in a crash can also be identified by the sequence of verb phases in a narrative. Moreover, reviewing thousands of crash reports is a matter of minutes, according to a recent study. Hence, an automatic information extraction approach is proposed in this project to facilitate rapid and efficient retrieval of critical data from crash narratives.

Grantees should expect to provide documentation that the grant has improved a core state safety database. Describe one specific and quantitative improvement to a core state traffic safety database that can be expected within one calendar year of grant approval:
This research project will produce a report that documents the text mining techniques and tools applied, the assessment outcome of crash flags (e.g., work zone), the key contextual information and sequence of events relating to a crash. Such information can be vital for seeking the causal factors of a crash. In addition, maximizing the value of a crash narrative will encourage and incentivize law enforcement agencies to use a narrative to capture things that are not available in the data fields.

This project will be a collaboration between University of Wisconsin-Milwaukee (UWM) and UW-Traffic Operations and Safety (TOPS) Lab. UWM will perform the primary research tasks and UW-TOPS will perform planning activities and explore the opportunities to incorporate the research findings into the state traffic safety database.
Provide a baseline measure for this specific and quantitative improvement:
In the project, we will summarize characteristics of crash narratives (e.g., average number of words, average number of byte, most frequently used words in associated with the crash type of interest), create vocabulary for specific types of crashes; and present statistical measures such as false positive and false negative to illustrate that text mining techniques can extract pertinent information and properly classify crashes.

Project Objectives: Develop automatic text extraction methods for retrieving useful information from digitized crash narratives in the DT4000. Use extracted information to validate crash flags, judge the overall quality of a crash narrative, and enhance crash analysis.
Itemized Budget: $80,000

14. **Project Title**: Comprehensive Evaluation of DT4000 Data Quality for Pedestrian and Bicycle Crashes

    Organization Name: University of Wisconsin-Milwaukee

    Project Coordinator and Contact Information: Dr. Xiao Qin, qinx@uwm.edu and Dr. Robert J. Schneider, rjschnei@uwm.edu

    Core State Safety Database to Improve (*choose only one, unless selecting integration below*):
    - o **Crash**
    - o Citation or Adjudication
    - o Driver
    - o EMS or Injury Surveillance System
    - o Roadway
    - o Vehicle

    Proposed Attribute of Data to Improve (*choose only one*):
    - o **Accuracy**
    - o Completeness
    - o Timeliness
    - o Uniformity
    - o Accessibility
    - o Integration

    Problem Identification (Reference the Traffic Records Assessment, if applicable.):

    "Improve Non-Motorist Safety" is one of ten "Highest Priority Issue Areas" in the Wisconsin Strategic Highway Safety Plan, 2017-2020. Between 2012 and 2016, pedestrians and bicyclists accounted for 9.9% of all traffic fatalities (55 per year), 9.8% of all incapacitating injuries (311 per year), and 5.3% of all injuries (2,171 per year). Moreover, pedestrian fatalities, serious injuries, and overall injuries all increased in 2017 and 2018. Hence, reducing the impact of pedestrian and bicycle crashes is important for the health and vitality of every resident in Wisconsin.

    Crash data collected through the Wisconsin Motor Vehicle Accident Report Form is the primary source for most types of transportation safety analysis. On January 1, 2017, the previous version of the form (MV4000) was replaced by a newer form (DT4000) that provides more relevant and complete information about crashes, including expanded fields related to pedestrian and bicycle crashes. For example, the DT4000 form provides additional choices about the location of a pedestrian at a crash. The five previous choices have been expanded to 15 choices in the DT4000 (e.g., "in crosswalk" is now specified as "intersection-marked crosswalk," "intersection-unmarked crosswalk," "midblock-marked crosswalk," or "median/crossing island"). It is anticipated that this additional detail will significantly improve many types of safety analysis, including pedestrian and bicycle safety studies.

    However, it is unknown if all of the relevant data fields have been filled in by law enforcement agencies using the DT4000. Further, the quality of the data is unknown. Therefore, this research project will address the following questions: Are the new data fields being completed? Is the information being entered

properly? Is the information in the data fields consistent with the crash narrative? Are different law enforcement agencies using the DT4000 form in a consistent manner? Importantly, what new insights and new values can the DT4000 enhancements offer to safety analysis, such as the prediction of pedestrian and bicycle injury severity? To answer these questions, a thorough evaluation is needed.

Grantees should expect to provide documentation that the grant has improved a core state safety database. Describe one specific and quantitative improvement to a core state traffic safety database that can be expected within one calendar year of grant approval:

This research project will produce a report that summarizes the completeness, quality, and consistency of pedestrian- and bicycle related data elements provided by the new DT4000 form. It will identify potential gaps in coverage, especially any omissions related to critical crash contributing factors. In addition, statistical analysis will be performed to identify the significance and quantify the importance of individual data elements in predicting the injury severity levels of pedestrian and bicycle crashes. Based on the evaluation results, recommendations will be made in three areas: a) effective enforcement training to improve the quality of data collection and reporting for pedestrian and bicycle crashes; b) new fields or factors to be considered in the future DT4000 updates; and c) pedestrian and bicycle safety analysis methods based on DT4000 data.
Provide a baseline measure for this specific and quantitative improvement: The evaluation will be performed through a careful review of all DT4000 pedestrian and bicycle crash reports from 2017 and 2018. Evaluation will provide key data quality statistics in metrics such as completion rate, data consistency between fields and with the crash report narrative, and completeness and consistency across agencies. This evaluation will provide a baseline for comparison with future years.
Project Objectives:
Provide recommendations for direct improvement on the completeness and quality of pedestrian and bicycle crash data through a thorough review and quantitative analysis of all DT4000 pedestrian and bicycle crashes reported in 2017 and 2018.
Itemized Budget: $65K

Signature

The undersigned individual acknowledges that the Traffic Records Coordinating Committee has approved the State of Wisconsin's Traffic Safety Information System Improvements Strategic Plan, 2020, which supports the State's application for federal funds. The members of the committee will commit the resources of their organizations to its success, as witnessed by the signature on this document as of this date: _____ May 2019.

State of Wisconsin Traffic Safety Information System Improvements Strategic Plan, 2020.

<div style="margin-top:2em; border-top:1px solid #000; width:300px;"></div>

David Pabst, Director
Bureau of Transportation Safety
Wisconsin Department of Transportation
State Highway Safety Coordinator

1. Traffic Records Coordination Contact Information

Laura C. Vande Hey
4822 Madison Yards Way, 9th Floor South
Madison, WI 53705-9100
608.709.0065
laura.vandehey@dot.wi.gov

Andi Bill
UW-TOPS Lab
Engineering Hall
1415 Engineering Dr
Madison, WI 53706

608.354.4010
bill@wisc.edu

APPENDICES

1. TRCC Policy Group Members and Affiliation
2. TRCC Technical Group Members, File, Function and Affiliation
3. Wisconsin's Existing Data Sources and Questionnaire (Filled out by TRCC Members on 3-2-2017
4. Sample Worksheet (Filled out by TRCC Members on 4-5-2017)

APPENDIX 1
TRCC Policy Group Members and Affiliation

Craig Thompson
Secretary of the Department of Transportation
Governor's Representative for Highway Safety
(Roadway, Crash, Driver, Citation/Conviction, Vehicle Files)

David Pabst, Director
WisDOT Bureau of Transportation Safety
State Highway Safety Coordinator

Andrea Palm
Secretary of the Department of Health Services
State Health Officer and Administrator
(Injury Files – Ambulance Run, Emergency Department, Hospital
Discharge, Trauma Registry)

Brian O'Keefe
Department of Justice, Division of Criminal Investigation

Randy R Koschnick
Director of State Courts Office

David Cagigal
Chief Information Officer, Administrator
Department of Administration, Division of Enterprise Technology

Major General Donald P. Dunbar, Administrator
Department of Military Affairs, Division of Emergency Government

APPENDIX 2

2019 TRCC MEMBERS			
Member Organizations	**Representative**		Database Representation
	DOT		
SHSO Co-Chair (Tie vote)	Vande Hey	Laura	Crash
UW TOPS Lab Co-Chair	Bill	Andrea	Crash
OPFI	Pavich	Peter	
WSP -	Harvey	Dave	Citation or Adjudication
WSP - TraCS (alt)	Wolfe	Paul	Citation or Adjudication
WSP BDS	Schwartz	Darlene	Driver
DMV/BVS (alt)	Galbraith	Timothy	Vehicle
DTIM/BSHP (alt)	Schieldt	Kelly	Roadway
DBM/BITS - GIS	Moline	Mitch	Crash
DTSD/BHO	Adams	Angela	Roadway
DTSD/BHO	Szymkowski	Rebecca	Roadway
DTSD/BHO (alt)	Porter	Brian	Roadway
BOTS	Corsi	Larry	Crash
DSPS	Muthumari	Chokkalingam	Crash
BOTS	Barkholtz	Heather	Citation or Adjudication
DOT	Murkve	Jeff	Vehicle
	State Agencies and Organizations		
DOJ/CIB TIME	Doberstein	Courtney	Citation or Adjudication
DOJ	Fortunato	Dennis	Citation or Adjudication
OSC-CCAP	Olson	Andrea	Citation or Adjudication
OSC-CCAP (alt)	Hicks	Kim	Citation or Adjudication
DHS/DPH-EMS	Happel	Chuck	EMS or Injury Surveillance
DHS/DPH/BHIP	Taylor	Laurie	EMS or Injury Surveillance
DOJ	Jenswold	Tara	Citation or Adjudication
MenomineeTribal PD	Warrington	Warren	
DPI	Dean	Brian	Driver
	UW		
UW CHSRA-CODES	Bigelow	Wayne	EMS or Injury Surveillance
UW TOPS Lab (alt)	Parker	Steven	Crash
CIREN Center Milwaukee	Halloway	Dale	EMS or Injury Surveillance
	Local Agencies & Organizations		
AAA	Jarmusz	Nick	
Jefferson County	Udovich	Brian	
Onalaska PD	Berg	Tim	
Dane County SO	Alsaker	Matt	
Madison PD	Knight	Trevor	
Madison PD (Alt)	Reilly	Deanna	
	Federal Partners		
NHTSA	Kinnard	Kari	

FHWA/WI Division	Jolicoeur	David	
FMCSA/WI Division	Oesterle	Mark	
FMCSA/WI Division	Gessler	Mark	

APPENDIX 3
Wisconsin's Existing Data Sources and Questionnaire (Filled out by TRCC Members on 3-2-2017)

CRASHES	• DT4000 (either in the DB2 or w/in TransPortal) • Large Truck and Bus Crash File (within the DSP Motor Carrier and Inspection Section) • Motor Carrier Management Information System (within the DSP Motor Carrier and Inspection Section) • SafetyNet (commercial vehicle crashes) (stored at DTIM)
EXPOSURE	• TRADAS (DTIM/Bureau of State Highway Programs) • Statewide Traffic Operations Center Volume, Speed, and Occupancy Data/VSPOC (stored at DTSD Southeast Region) • VMT data from the Forecasting Division
ROADWAY	• Highway Performance Monitoring System (HPMS) • State Trunk Network (GIS database of centerline files) (DTIM) • Local Control Management Database • State Deficiency File • Bridge Information System • TRADAS (DTIM) • Wisconsin Information System for Local Roads (WISLR) (stored at DTIM)
CITATION OR ADJUDICATION	• State Citation File (stored at DMV) • Alcohol and Drug Tests (DOT and State Hygiene Lab) • Alcohol Breath Test Data (DSP/BOTS Chemical Test Section) • Wisconsin Incident-Based Reporting System (WIBRS) (stored at Office of Justice Assistance Statistical Analysis Center) • WI District Attorney's Information Technology and Prosecutor Technology for Case Tracking (PROTECT) (Department of Administration) • Consolidated Court Automation Project (CCAP) (State Courts Office) • Court-Ordered Withdrawal System (COWS) (DMV/Bureau of Driver Services) • Wisconsin Law Enforcement Network (WILENET) (DOJ) • Transaction Information for Management of Enforcement (TIME) system (located at the WI DOJ/Crime Information Bureau)
VEHICLE	• Vehicle Registration Information (DMV/Bureau of Vehicle Services) • Commercial Registration Information (International Registration Program) (DMV) • International Fuel Tax Association (DMV)
DRIVER	• State Driver Record File

	• Problem Driver Pointer System (DMV/Bureau of Driver Services) • Motor Carrier Management Information Systems (WSP/Motor Carrier and Inspection Section) • SAFETYNET (WSP/Motor Carrier and Inspection Section)
INJURY CONTROL/EMS	• Wisconsin Ambulance Run Data System (WARDS) (DHS) • Wisconsin Emergency Department Visit Data (through Richard Miller DHS/DPH) • Wisconsin Hospital Inpatient Discharge Data (Richard Miller Department of Health Service /Department of Public Health) • State Trauma Care System Registry • CasePoint Coroner Data System(Department of Health Services, Division of Public Health, Bureau of Community Health Promotion) • Crash Outcome Data Evaluation System (CODES) (housed at Center for Health Systems Research and Analysis, College of Engineering at UW-Madison)

ACCESSIBILITY

    1.) Are the above data sources as accessible as they can be for the following recipients? Some of the records are confidential, and not intended for certain groups. Place names of data sources next to the recipients below:

        a. Staff at DOT

        _____

        _____

        _____

        b. Outside government entities (including UW)

        _____

        _____

        _____

        c. The public

        _____

        _____

        _____

        d. The media

        _____

        _____

        _____

        e. Other relevant groups?

        _____

        _____

        _____

    2.) Are there certain limitations on the data access i.e (for reasons of privacy), that are no longer necessary? Conversely, are there fields within the data that are open to certain groups (i.e. the public) that should be restricted?

    _____

    _____

    _____

    _____

    3.) For each of the data sources and each of the recipients, think of the procedures for accessing the data. Is the data pull done manually or is it automatic? If done manually, are there strategies that could be utilized to make this process more automatic? Think of the people/groups you would need to talk to in order to make this happen.

    _____

    _____

    _____

    _____

4.) Think of the web portals used to access the data. What are some examples of portals that are unclear/confusing and which could be simplified? List below.

_____
_____
_____

INTEGRATION

1.) Is each data source linkable with others (think specifically about specific data sets as much as possible)? Have you recently tried to link data sheets together, but lacked a common field? Please write down specific examples here.

_____
_____
_____
_____

2.) If the data *is* linked, how is it linked (automatic or manually)? Is it time-intensive to perform these linkages? What are ways that you and your group can think of to ease and improve linkages?

_____
_____
_____

3.) Is the data geo-coded or inherently geographic? This could help with GIS analysis. Think of databases you have looked at that were not geo-coded but which could have been. Please list below.

_____
_____
_____

TIMELINESS

1.) How current is the data (after an event)? If digital or oral requests for data need to be made, what is the lag time for this and does this seriously impede analysis?

_____
_____
_____
_____

2.) How often is relevant data updated? Is this done automatically or an ad-hoc basis?

_____
_____
_____
_____

3.) If the data needs to be changed, who is responsible for changing it, how long does that process take, and is there a lag time to when that data is updated for all users? How many approvals are required to change data and are there ways to reduce the number of necessary approvals, while still maintaining data accuracy?

_____
_____
_____
_____

4.) Are there ways to speed up the timeliness of your work group's data? What resources would be needed to accomplish this? Think specifically of bottlenecks in the reporting process here.

_____
_____
_____
_____

COMPLETENESS
1. Are data sources complete internally (i.e: Are data sheets containing all the fields and rows that they should be)? Think of specific data sheets that have impeded your analysis by missing certain fields/columns/rows.

_____
_____
_____
_____

2. Are data sources externally complete (i.e: Are data sources missing entire sheets that may be helpful to your group)? Pinpoint, as much as possible, the individual, or at least general office division that you would need to talk to about this.

_____
_____
_____
_____

3.) Does the data geographically cover the necessary area? If sampling is done, is it representative of the sampling frame? Is the data temporally complete?

_____
_____
_____

CONSISTENCY/UNIFORMITY
1. Is relevant data adhering to national and state standards? How often do staff review possible changes in standards?

_____
_____
_____
_____

ACCURACY/LACK OF ERRORS

1. Is relevant data entered manually or automatically? If entered manually, what steps must your group have in place to validate the accuracy of data internally (within your division, for example)? How often is this done and do you think that this frequency is adequate? If done automatically, are there automatic validation procedures in place?

   _____
   _____
   _____
   _____

2. What validation processes do you have to verify the accuracy of data sources that arrive from outside divisions or even outside the DOT? If no validation procedures are currently being used, think about simple validation procedures that could efficiently put in place. How you could make other relevant members of your division aware of these best practices?

   _____
   _____
   _____
   _____

3.) Are data sources generally precise enough (either for your own usage or to hit Federal/State/internal requirements)?

   _____
   _____
   _____

Appendix 4:

Counties with Motorcycle Rider Training Courses (2020 HSP)	
County	**2018 Registered Motorcycles**
Ashland	836
Barron	3,169
Brown	14,523
Dane	20,878
Douglas	2,440
Eau Claire	4,951
Fond du Lac	6,974
Grant	3,502
Kenosha	8,815
La Crosse	5,796
Langlade	1,353
Manitowoc	7,077
Marathon	8,576
Milwaukee	26,143
Monroe	3,284
Oneida	3,048
Outagamie	12,451
Ozaukee	5,515
Rock	9,134
Sauk	4,222
Shawano	2,865
Sheboygan	9,308
St. Croix	6,138
Vernon	1,847
Waukesha	22,869
Winnebago	10,061
Wood	5,400

Appendix 5:
Partners, Committees, and Organizations (*not an exhaustive list*)

AAA
https://www.aaafoundation.org/

AARP www.aarp.org

AT&T-It Can Wait Program
http://www.itcanwait.com/apps-and-tools

Alcohol and Other Drug Abuse Program
http://dpi.wi.gov/sspw/aodaprog.html

Children's Hospital of Wisconsin
http://www.chw.org/

Federal Highway Administration
www.fhwa.dot.gov

Ford Driving Skills for Life
www.drivingskillsforlife.com

Fox47 – MSG2TEENS
http://fox47.com/sections/contests/msg2teens/

Green Bay Packers
http://www.packers.com/

Governors Highway Safety Association
http://www.ghsa.org/

Governor's Bicycle Coordinating Council

Governor's Council on Highway Safety

HSP stakeholder input:
May 2016

La Crosse OWI Treatment Court
http://www.co.lacrosse.wi.us/humanservices/js/owi.htm

Law Enforcement Agencies

MADD
www.madd.org

Marshfield Clinic – Center for Community Outreach
www.marshfieldclinic.org/patients/?page=cco

Medical College of Wisconsin – Injury Research Center
http://www.mcw.edu/Injury-Research-Center.htm

National Highway Traffic Safety Administration
www.nhtsa.dot.gov

Office of Juvenile Justice and Delinquency Prevention
http://ojjdp.ncjrs.org

Operation Click
http://operationclick.com/

Operation Lifesaver
http://oli.org/

Pacific Institute for Research and Evaluation
www.pire.org

Rural Mutual Insurance
http://www.ruralins.com/

Safe Kids-Southeast Wisconsin
http://www.safekidswi.org/SafeKidsWisconsin-SoutheastWisconsin.asp

Safe Routes to School
http://www.dot.wisconsin.gov/localgov/aid/saferoutes.htm

State Council on Alcohol and other Drug Abuse
www.scaoda.state.wi.us

Statewide Impaired Driving Work Group

Substance Abuse and Mental Health Services Administration
www.samhsa.gov/

Tavern League of Wisconsin
www.tlw.org

Traffic Records Coordinating Committee

Traffic Safety Commissions (72 county organizations)

University of Wisconsin System Administration

WE Bike, etc. www.webike.org

Wisconsin Association of Women Highway Safety Leaders

Wisconsin Badgers
http://www.uwbadgers.com/

Wisconsin Bike Fed
http://www.bfw.org/

Wisconsin Chiefs of Police Association (WCPA)
http://www.wichiefs.org/

Wisconsin Department of Health Services
http://dhs.wisconsin.gov

Wisconsin Department of Children and Families
http://dcf.wi.gov/

Wisconsin Department of Justice
http://www.doj.state.wi.us/

Wisconsin Department of Natural Resources
http://dnr.wi.gov/

Wisconsin Department of Tourism
www.travelwisconsin.com

WisDOT- Division of Motor Vehicles

WisDOT- Planning

Wisconsin Interscholastic Athletic Association
http://www.wiaawi.org/

Wisconsin Juvenile Officers Association
www.wjoa.com.

Wisconsin Highway Safety Coordinators Association

Wisconsin Partnership for Activity and Nutrition (WI PAN)

Wisconsin Safety Patrol Congress

Wisconsin Safety Patrols, Inc.
http://www.wisconsinsafetypatrol.com/

Wisconsin State Laboratory of Hygiene
www.slh.wisc.edu

Wisconsin State Patrol Alumni Association
http://wspalumni.org/

Wisconsin Technical College System
http://www.wtcsystem.edu/

Wisconsin Traffic Operations and Safety Laboratory
http://www.topslab.wisc.edu/

Wisconsin Traffic Safety Officer's Association
http://wtsoa.org/siteFiles/

				Fed ID	Amount	Description
			PA	2020-10-01-PA	$320,000.00	Planning and Admin
			OP	2020-20-01-OP	$85,000.00	OP Manager
PA	$320,000.00		OP	2020-20-05-OP	$1,460,000.00	TSEP
OP	$2,133,000.00		OP	2020-20-06-OP	$400,000.00	Mobilization
AL	$1,275,000.00		OP	2020-20-06-OP	$188,000.00	Seats
PT	$1,000,000.00		M2	2020-25-02-M2	$200,000.00	PI&E Occupant
PS	$415,000.00		M2	2020-25-03-M2	$230,000.00	CPS Tech, Training
EM	$100,000.00		M2	2020-25-05-M2	$512,000.00	TSEP
TR	0		M2	2020-25-06-M2	$54,000.00	Seats
CP	$1,395,000.00		M2	2020-25-09-M2	$65,000.00	Survey
MC	$350,000.00		AL	2020-30-03-AL	$330,000.00	TSRP
PM	$500,000.00		AL	2020-30-04-AL	$120,000.00	Festival Grants
Total 402	$7,488,000.00		AL	2020-30-06-AL	$800,000.00	Drive Sober
			AL	2020-30-09-AL	$25,000.00	Survey
405b	$1,061,000.00		M5	2020-31-01-M5	$85,000.00	AL Manager
405c	$1,176,243.00		M5	2020-31-02-M5	$250,000.00	PI&E Impaired
405d	$2,900,000.00		M5	2020-31-03-M5	$275,000.00	DRE
405f	$90,000.00		M5	2020-31-03-M5	$75,000.00	JOL
Total 405	$5,227,243.00		M5	2020-31-03-M5	$10,000.00	DWI Courts
			M5	2020-31-04-M5	$70,000.00	24/7
All Funds	$12,715,243.00		M5	2020-31-05-M5	$1,825,000.00	TSEP
			M5	2020-31-07-M5	$250,000.00	Paid Media Impaired
			M5	2020-31-09-M5	$60,000.00	Roadside Drugs
			State	2020-39-04-WI	$700,000.00	Tavern League
			PT	2020-40-05-PT	$1,000,000.00	TSEP
			M3	2020-58-03-M3	$1,111,243.00	TRCC Projects
			M3	2020-58-06-M3	$65,000.00	Laptops
			EM	2020-60-02-EM	$50,000.00	PI&E EMS
			EM	2020-60-03-EM	$50,000.00	Training
			402	2020-70-04-MC	$200,000.00	Training Awareness
			402	2020-70-05-MC	$70,000.00	Enforcement
			MC	2020-70-07-MC	$50,000.00	Media MC
			402	2020-70-09-MC	$30,000.00	Awareness
			405f	2020-72-04-M9	$30,000.00	Training
			405f	2020-72-06-M9	$60,000.00	Equipment
			535	2020-79-01-WI	$85,000.00	Program Manager
			535	2020-79-04-WI	$463,000.00	Training
			535	2020-79-07-WI	$180,000.00	Awareness
			PS	2020-80-02-PS	$20,000.00	PI&E PS
			PS	2020-80-03-PS	$10,000.00	Safe Bicycling
			PS	2020-80-03-PS	$30,000.00	
			PS	2020-80-03-PS	$30,000.00	LEA Training
			PS	2020-80-04-PS	$10,000.00	Zone
			PS	2020-80-04-PS	$30,000.00	MilWalkee
			PS	2020-80-05-PS	$260,000.00	TSEP
			PS	2020-80-06-PS	$5,000.00	Rodeos
			PS	2020-80-09-PS	$20,000.00	Pilot
			562	2020-89-01-WI	$87,000.00	Program Manager
			402	2020-90-01-CP	$450,000.00	LELs/RPMs
			CP	2020-90-02-CP	$480,000.00	PI&E CP
			402	2020-90-04-CP	$90,000.00	WIse-Grants
			402	2020-90-06-CP	$375,000.00	GCHS
			PM	2020-90-07-PM	$500,000.00	Paid Media CP

Table title: Federal Fiscal Year 2020 Highway Safety Plan Budget - Wisconsin

Appendix 7:

| State Agency | Program | Occupant Protection State Program Funds | | | Description of Eligible Expenditures/Activities | FFY 2018 |
		FFY 2014	FFY2015	FFY14 & 15 Average		
Wisconsin Division of State Patrol (DSP)	Traffic Enforcement	$40,664,175.42	$41,095,222.16	Overall average calculated below	A percentage of salaries and fringe benefits of DSP traffic assigned to OP	$42,701,858.22
	TOTALS:	$40,664,175.42	$41,095,222.16	$40,879,698.79		$42,701,858.22

| State Agency | Program | Impaired Driving State Program Funds | | | Description of Eligible Expenditures/Activities | FFY 2018 |
		FFY 2014	FFY2015	FFY14 & 15 Average		
Wisconsin Division of State Patrol (DSP)	Traffic Enforcement	$20,332,087.71	$20,516,805.07	Overall average calculated below	A percentage of salaries and fringe benefits to DSP traffic assigned to Impaired Driving Manager	$21,318,918.72
SafeRide Program	Alternative Transportation	$609,422.00	$350,000.00	Overall average calculated below	Funding generated through the OWI surcharge. As we become more successful with this program, the less funding there will be available.	$671,758.14
Intensive Supervision Program	County programs for repeat offenders	$722,459.00	$731,600.00	Overall average calculated below	State and county funding support these programs in 11 counties.	$0.00
	TOTALS:	$21,663,968.71	$21,598,405.07	$21,631,186.89		$21,990,676.86

| State Agency | Program | Traffic Records State Program Funds | | | Description of Eligible Expenditures/Activities | FFY 2018 |
		FFY 2014	FFY2015	FFY14 & 15 Average		
Wisconsin DMV TraCs staff including development, RESOLVE, and help desk	Program Administration and Program Management	$600,792.05	$646,438.42	Overall average calculated below	A percentage of salaries and fringe of Bureau Chief, Administrator, and Financial Manager	$513,669.14
DMV TraCs Software maintenance fees	Reporting software	$69,500.00	$79,000.00	Overall average calculated below	Annual license payment covers all law enforcement in the state.	$79,000.00
State Funded Safety Analyst	Data Analyst	$70,498.82	$71,059.10	Overall average calculated below	Salary and fringe for data analyst	$68,188.27
MACH and TraCs Support Wisconsin DSP	Program Administration and Program Management	$153,720.71	$159,745.77	N/A	Salaries, fringe benefits, and indirect cost rates absorbed by Iowa State University to conduct an annual public awareness survey.	$568,254.39
MACH MiFi's PC770's	Hardware for MACH	$145,042.94	$205,388.64	N/A	Mifi cost per month 553 @ $39.99/month for one year	$265,440.00
	TOTALS:	$1,039,554.52	$1,161,631.93	$1,100,593.23		$1,494,551.80