



# Summary Report

## 2015 Traffic Records Strategic Plan Update

Prepared for:

Montana Department of Transportation,  
Traffic Records Coordinating Committee (TRCC)

Project Number: HWY-331704-MS

*February 2016*





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# Executive Summary

## Introduction

The 2015 Montana Traffic Records Strategic Plan (TRSP) will support the Comprehensive Highway Safety Plan (CHSP) and Traffic Highway Safety Plan “Vision Zero” and its goal of eliminating deaths and injuries on Montana Highways. The TRSP focuses on traffic records data and organizations that report and influence these data. It serves as the guiding document for the Traffic Records Coordinating Committee (TRCC) with strategies for the future.



Traffic records systems are the information about the State’s roadway network and the vehicles and people that use it. Traffic safety records (also referred as crash records) typically revolve around safety data or data components of crashes. Primarily traffic safety records are data on: crashes, drivers, vehicles, roadways, citation/adjudication, and injury surveillance. The state of Montana with individual departments and agencies are collecting all this data. The quality of the data is based on six attributes: Accuracy, Completeness, Integration, Timeliness, Uniformity and Accessibility. Improving the data in these areas can help lead to better decisions.

## TRCC Vision

*The Montana Comprehensive Highway Safety Plan and the Traffic Highway Safety Plan guide the TRCC vision and it states: Montana is committed to Vision Zero- a vision of zero fatalities and zero serious injuries on Montana’s roadways. In support of this vision, the TRCC will work to reduce the number and severity of traffic crashes, injuries and fatalities on Montana highways.*

## TRCC Mission

In support of the CHSP overarching strategy, the TRCC mission is to provide coordinated leadership to improve the timeliness, accuracy, completeness, uniformity, integration, and accessibility of crash data and systems to address safety issues in Montana

## TRCC Goals

- An actively engaged TRCC steering committee and management participation in this effort is critical to success.
- Freely shared information is vitally important; both from a data perspective and as a trust building function for the team.
- Team decisions will consider the integrity and values of a long-lasting relationship between team members as a significant factor.
- Stakeholders are regularly informed about TRCC activities.
- The strategic plan is the blueprint for activities, timelines, and performance measures to guide the committee.

## Strategies

20 specific strategies for the TRCC were created and are summarized in the Strategy Matrix on the following page. The Strategy Matrix assigns the strategies into five focus areas: Crashes, Citation/Adjudication, Injury Surveillance, Data Integration, and the TRCC. Based upon input from the TRCC and the planning efforts, each strategy:

- Is detailed (with full description included in pages 9 through 11)



- Has a recommended timing component
- Approximates the financial investment to develop and/or implement the strategy
- Identifies which National Highway Traffic Safety Administration (NHTSA) performance attribute (timeliness, accuracy, completeness, uniformity, integration, and accessibility) is addressed.



## Strategies Matrix

ID	DATA INTEGRATION	CRASHES	ID	CITATION / ADJUDICATION	ID	INJURY SURVEILLANCE	ID	TRCC	
1	Create a list of databases and sources of data and regularly review the list Addresses: Integrity and completeness	2	Create a formal flow chart diagram for processes governing data collection including FARS Addresses: Completeness	3	Create a flow chart for current processes involved with DOJ Crash related data Addresses: Completeness, timeliness, and accessibility	4	Define who/when trauma and serious injury determination is captured in crash records Addresses: Uniformity, accuracy, and timeliness	5	Maintain and seek to expand a multi-jurisdictional Traffic Records Coordinating Committee Addresses: Integrity and completeness
6	Identify current tools used in electronic reporting (address tribal and WBCR) Addresses: Integrity, accessibility and completeness	7	Continue to fund and support existing systems Addresses: All six	8	Work with DOJ systems to determine if completeness, timeliness, accessibility can be improved. Addresses: Completeness, timeliness, and accessibility	9	Identify issues related to crash records in current injury surveillance system including EMS data Addresses: All six	10	Enhance awareness among agency leadership and agency participation by developing an annual report card Addresses: Uniformity, accuracy, and integrity
11	Continue to fund and support increasing the use of electronic data reporting among local enforcement Addresses: Integrity, accessibility and completeness	12	Regularly engage with the BIA and Tribes to improve the data collection, sharing, and processing of crash data Addresses: All six	13	Create an action plan for improving citation and adjudication system data Addresses: Completeness, timeliness, and accessibility	14	Review gaps/lack of integration for hospitals, tribal medical centers, trauma registry, rehabilitation data, etc. Addresses: Uniformity, accuracy, and timeliness	15	Develop a new project application process that better defines evaluation criteria Addresses: All six
16	Develop a data linkage plan among TRCC agencies Addresses: Integrity and completeness	17	Improve the timeliness of citation and adjudication integration into crash records	18	After identifying issues, develop a plan to incorporate these data sets into an overall injury surveillance system Addresses: Integrity, accessibility and completeness	19	Create an alternative funding sources toolkit Addresses: Integrity and completeness	20	Develop a comprehensive traffic records inventory as part of the data linkage plan Addresses: All six

Traffic Records Performance Attributes addressed include: Timeliness, Accuracy, Completeness, Uniformity, Integration, and Accessibility  
 Level of investment: ∅ = no investment needed, \$ = 0 to 50,000, \$\$ = 50,000 to 100,000, \$\$\$ = over 100,000



# Research

## *Focus of Research*

The research was focused in two separate areas: national activities and individual (Montana) experiences. The national research includes a peer state review and defines specific requirements and steps occurring in other states as well as update on national funding. Identifying the goals and initiatives in other states' Traffic Records Strategic Plans provides insights for updating Montana's Strategic Plan.

Research with Montana departments and organizations that touch the data was obtained through a series of interviews and helped identify missing data or opportunities for new strategies.

## *Peer States Activities*

Traffic records strategic plans from eight other states that authored or updated their strategic plans since the authorization of MAP-21 were reviewed. Since each state's plan is structured differently, this section provides an overview of each reviewed plan, rather than a direct comparison between plans. Each of the eight plans are available online. Plan updates that were not available as of September 2015 were not considered.

The eight states included in the peer states comparison are highlighted in orange in the map below. Additionally, several more states (highlighted in yellow) were considered. These states however, did not have a compelling TRSP or ultimately offered little in the way of new information and are not





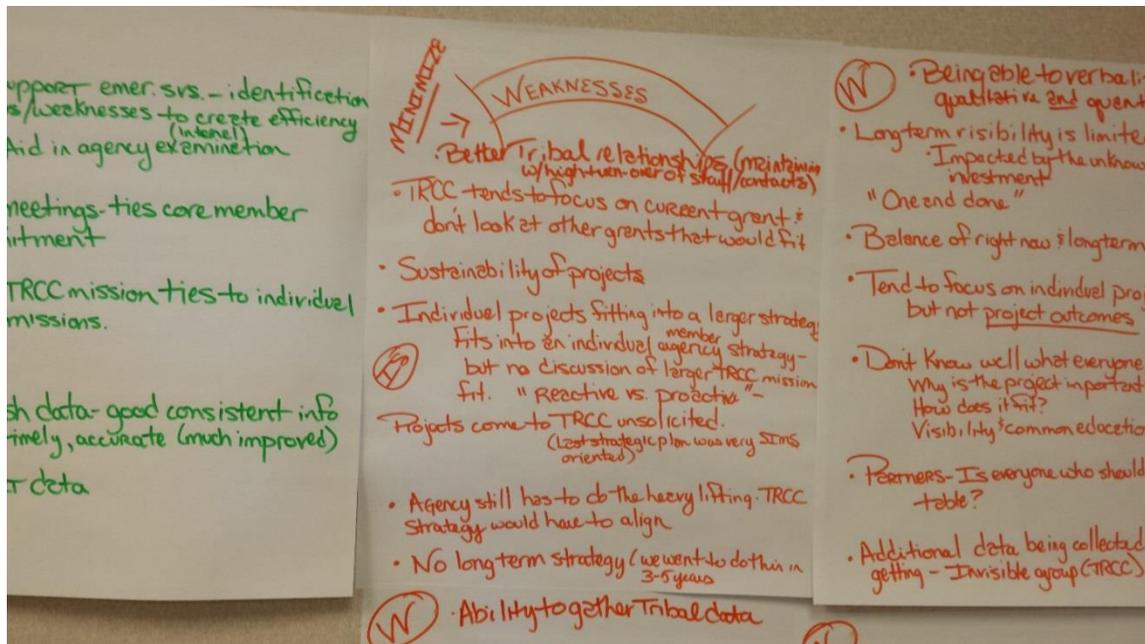
included in this report.

## SWOT

A SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis is a simple tool to help groups and agencies work out the internal (Strengths and Weaknesses) and external (Opportunities and Threats) factors impacting the functionality and success of an agency or collaborative group of participating agencies. This commonly used business tool assists in building strengths, minimizing weaknesses, seizing opportunities and counteracting threats.

A summary of SWOT can be found in the table on the next page. The remainder of the full SWOT report provides more detailed written descriptions within each SWOT category, it can be found in the appendix.

It is important to acknowledge that although SWOT analysis is an excellent and low cost tool for understanding overall group functionality, outlining group dynamic, and identifying potential gaps in information and/or process, it is also limited in scope and application. SWOT analysis is raw data, which means the analyses and corresponding SWOT report will not prioritize issues, provide solutions, offer alternatives, or outline tasks necessary to address any identified strengths, weaknesses, opportunities or threats.





## SWOT Participants

On October 6, 2015, TRCC members participated in a SWOT analysis meeting in Helena.. In addition, SWOT information was gathered by during several individual stakeholder and member interviews. Some of the comments and information generated during the SWOT analysis can be seen in the above picture. The full list of Strengths, Weakness, Opportunities, and Threats are in the summary table below.

The SWOT analysis and report were useful in the development of the final strategies, especially those that focused on the TRCC.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Individual agency work</li> <li>• Commitment of people involved</li> <li>• Regular TRCC meetings</li> <li>• Sharing of information</li> <li>• TRCC funding of strong individual projects (SIMS and SmartCOP)</li> <li>• Reduction of agency “silos”</li> <li>• Ability to make decisions quickly and respond to trends/needs</li> <li>• Crash data and Court data both much improved</li> <li>• TRSP useful in defining issues/questions and data elements</li> </ul>	<ul style="list-style-type: none"> <li>• Tribal crash data</li> <li>• TRCC focus on current funding only</li> <li>• Lack of overall strategy “umbrella” and long term vision</li> <li>• Difficult to document project outcomes (in addition to outputs)-Quantitative vs. Qualitative documentation</li> <li>• TRCC is largely invisible</li> <li>• Lack of internal member education</li> <li>• Disconnect between the TRCC and the steering committee</li> <li>• No TRCC champion</li> <li>• Lack of ongoing/refresher law enforcement training</li> <li>• Ongoing data weaknesses/gaps and lack of data integration</li> <li>• Inconsistent use of tools (several jurisdictions still handwriting reports)</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Increased connectivity of state agencies overall</li> <li>• More groups willing to share data</li> <li>• State records management review that could improve transparency and storage of data</li> <li>• Potential new funding opportunities</li> <li>• Movement for federal standardization</li> <li>• Opportunity for increased training of law enforcement</li> <li>• MHP single point of contact for fatality reports (consistency)</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of potentially necessary partners</li> <li>• Funding uncertainty at all levels (State and Federal)</li> <li>• Any outside perception of data weaknesses/gaps</li> <li>• Lack of consistent participation if there is staff turn-over or changes in supervisory support (TRCC is not institutionalized/legislatively mandated)</li> <li>• Mandated changes to privacy guidelines could lead to less data sharing</li> <li>• Comparing Montana to other state</li> </ul>



<ul style="list-style-type: none"><li>• Significant opportunities in SIMS for linkage with other data systems</li><li>• MDT Enterprise Architecture currently under review</li><li>• Maintenance Management System scheduled to come online in 2016</li><li>• Opportunities for better relationships and education with Tribes</li><li>• Utilization of inter-agency connections to support/educate regarding TRCC/TRSP</li><li>• IHC/injury prevention</li></ul>	<p>standards/expectations</p> <ul style="list-style-type: none"><li>• Tribal Council turnover impacts the ability to get consistent data on Reservations</li></ul>
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## Funding Summary

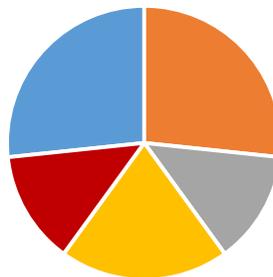
The TRCC has a strong track record of being good stewards of the public dollars they are allocated. The committee places an emphasis on investing in projects where they will see the largest return on investment, both quantitatively and qualitatively.

Historically, TRCC has had a significant carry forward amount annually which has provided the organization with a healthy financial cushion. The carry forward amount has been consciously evaluated each year to ensure there was an appropriate funding safety net in place.

### ***2012-15 Funding Summary***

In the past years, TRCC has provided funding for 15 completed programs for a variety of agencies.

TRCC Funded Projects Completed in FY 2012-2015

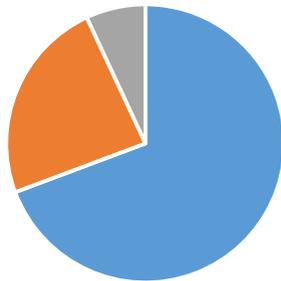


- DOJ/Montana Highway Patrol & WBCT
- MDT/Engineering & SIMS
- MDT/Planning & TRCC
- Courts & IJIS
- DPHHS

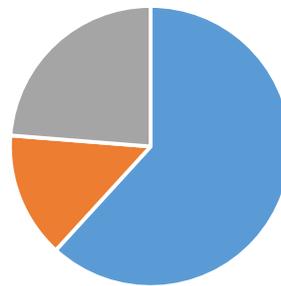


Figures on the following page demonstrate annual TRCC investments totaling nearly \$1.6 million in transportation safety related programming and projects.

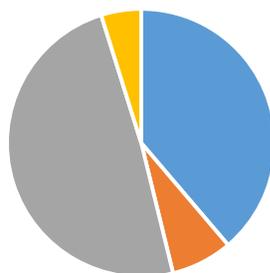
TRCC Expenditures 2012



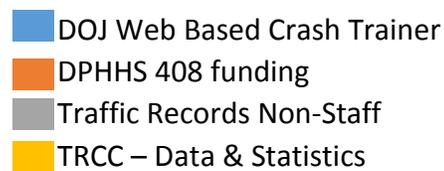
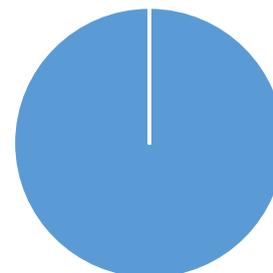
TRCC Expenditures 2013



TRCC Expenditures 2014



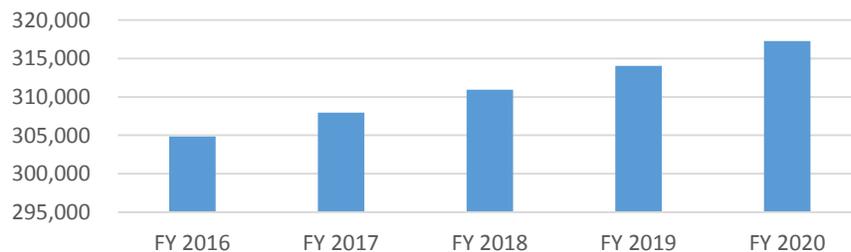
TRCC Expenditures 2015



### Future Funding

With the sole (future) funding source for TRCC being MAP 21 Section 405c and with few if any changes anticipated from the FAST Act implementation, future funding is estimated to remain fairly constant to what was seen in 2015 over the next five years.

FAST Act Apportionment





## Strategies

The research into other state's TRSPs, SWOT analysis, working with the TRCC, and other information has led to the development of the strategies. The strategies could be thought of as actions items or next steps to meeting the goals in the executive summary for improving road safety via improved traffic records. The strategies were developed with a five year plan in mind.

The TRCC met on December 16, 2015 to discuss 23 draft strategies. During that meeting, the final list of strategies was edited and narrowed to 20. A general order or priority was assigned to each strategy based on input from the TRCC. The strategies were renumbered across rows not columns, which can be seen on page 4. The lower the number the higher the priority.

### *List of Strategies*

The 20 individual strategies were grouped into five focus areas. Each strategy is designed to improve data in their focus area and traffic records overall.

#### Data Integration

1. Create a list of databases and sources of data and regularly review the list - This strategy seeks to define what currently exists and is collected, stored, and shared. This strategy requires coordination among all agencies involved in traffic records to document their data and sources. The TRCC should review and update the list on an annual or regular basis to keep the information up to date.

6. Identify current tools used in electronic reporting (address tribal and WBCR) - There is a trend to move crash reporting forms and tools to electronic reporting. This strategy is designed to understand the current state of the system before improvements in electronic reporting systems. Identifying the existing tools can also identify the lack of tools needed to move forward.

11. Continue to fund and support increasing the use of electronic data reporting among local enforcement - The MHP submits crash reports electronically, but many local enforcement agencies (LEA) do not. While the TRCC has no jurisdiction over LEA's, they can still encourage these organizations to move toward electronic data reporting by supporting the change and integration and even contributing funds to these improvements.

16. Develop a data linkage plan among TRCC agencies - After understanding the state of the data systems and integration (strategies 1, 6,11), the next step is to create a complete data linkage plan for all agencies that touch traffic records data. This plan should develop recommendations to enhance the collection, storage, integration, and sharing of needed data. The TRCC may want to use external support to complete this task.

#### Crashes

2. Create a formal flow chart diagram for processes governing data collection for all crashes. This strategy seeks to understand and document the system of collecting and reporting crashes. The flowchart should identify what steps that data goes through and when it changes hands.

7. Continue to fund and support existing systems - This strategy seeks to continue the TRCC's historically strong funding for needed improvements or updates that support traffic records systems. This strategy is not specific to any one improvement, but rather offers flexibility into the type of support the TRCC could offer.

12. Regularly engage with the BIA and Tribes to improve the data collection, sharing, and processing of crash data - The seven Montana tribes use different methods for collecting and reporting crash data. In an effort to improve the crash data on tribal lands, this strategy suggests regular meetings to discuss efforts and look for ways to improve.



### Citation/Adjudication

3. Create a flow chart for current processes involved with The Department of Justice (DOJ) Crash related data -This strategy is designed to clarify and document the significant DOJ process for crash reporting of both citations and adjudications. The flow chart should show how the traffic records move through the system.

8. Work with DOJ systems to determine if completeness, timeliness, accessibility can be improved - Again, it is important to improve the way the traffic records data is shared. This strategy focuses on understanding what can be improved to make the system work together better.

13. Create an action plan for improving citation and adjudication system data - With an improved level of understanding of the processes of citation and adjudication data, the next step would be to create an action plan. The TRCC may want to hire an outside firm to complete this task.

17. Improve the timeliness of citation and adjudication integration into crash records - Integrating citation and adjudication data in the appropriate traffic records can take some time. Hopefully with a documented flow chart of the process, ways to improve the timeliness can be identified and carried out.

### Injury Surveillance

4. Define who/when trauma and serious injury determination is captured in crash records - The SWOT and research efforts confirmed a discrepancy in the way injuries are reported at the scene of a crash, the timing of the determination and the authority who should determine degree of the injury. This strategy focuses on clarifying and removing discrepancies and timing of injuries determination and will include researching and defining trauma and serious injury.

9. Identify issues related to crash records in current injury surveillance system including EMS data - This strategy is to understand the current state of the system. There may be gaps or deficiencies within the emergency response and hospital data used in traffic records.

14. Review gaps/lack of integration for hospitals, tribal medical centers, trauma registry, rehabilitation data, etc. - Injury surveillance data can come from a number of sources. In some cases injury information may not be shared with the traffic records. This strategy is designed to examine data gaps among those reporting injuries to traffic records.

18. After identifying issues, develop a plan to incorporate these data sets into an overall injury surveillance system - Once the TRCC understands the current state of injury surveillance data and systems (tasks 4, 9, 14), and the gaps or needs have been identified, the next step is to develop a detailed plan to integrate these data into an overall system. The TRCC may want to use external support to complete this task.

### Traffic Records Coordinating Committee

5. Maintain multi-jurisdictional Traffic Records Coordinating Committee - The Montana TRCC is active and includes a broad membership of representing organizations (transportation, enforcement, court and judicial, emergency response). This trend of multi-jurisdictional participation should continue.

10. Enhance awareness among agency leadership by developing an annual report card - One way to increase awareness is to share with others what the TRCC is doing or has accomplished annually. This strategy involves creating and distributing a one-page annual report card with highlights of TRCC accomplishments and funding allocations/status.

15. Develop a new project application process that better defines evaluation criteria - The TRCC allocates funds for the improvement of traffic records. The current application process could be



improved to help ensure that the funds are addressing these strategies as well as those of the individual organizations.

19. Create an alternative funding sources toolkit - Besides the NHTSA funds allocated through the TRCC, there are also other sources that can contribute funds to improving traffic records. This strategy is to create a list and toolkit of possible funding sources to share internally and with applicants.

20. Develop a comprehensive traffic records inventory as part of the data linkage plan - This strategy seeks to create a comprehensive data linkage plan and to ensure definition of a detailed traffic records inventory. The inventory can include all data and sources identified in other strategies as well as a comprehensive list of known data. The TRCC may want to use external support to complete this task.

## STRATEGIES

### Making the System Work Together



Each area of traffic records is connected to the others.  
The TRCC improving or moving forward in one area  
moves the entire system forward.



## Conclusion

In support of the vision of zero fatalities and serious injuries, this document is to be used as a guide for the State of Montana and the TRCC to improve traffic records data going forward. The implementation of the strategies will be up to the TRCC and its individual members.

The traffic records strategies don't have to be addressed in order, or completed within five years. Some can be done concurrently or can be completed by members of the TRCC. Several require no investment of funding to be completed. Some of the strategies will require a commitment or investment from a specific agency.

NHTSA funding is to be used as "seed" funding, to begin the process of making improvements to the traffic records system, which the state agencies will then continue to sustain through other efforts. The TRCC and agencies have been effective in finding and using other sources of funding to implement needed projects. As funding opportunities become scarce or harder to attain, it will be important for the TRCC to continue to leverage funding from all sources to ensure the needed traffic records improvements are made.

This Traffic Records Strategic Plan is designed to have an annual update. The update can be short and should identify strategies that have been completed or are underway as well as those to be addressed. The TRSP Annual Element should include budgets for each project. These budgets should include all potential funding sources available. Some strategies will be on-going or may take more than one year to complete and the state of these strategies should also be addressed in the TRSP Annual Element.

# APPENDIX A



## RESEARCH REPORT

# Research Report:

## 2015 Traffic Records Strategic Plan Update

Prepared for:

Montana Department of Transportation,  
Traffic Records Coordinating Committee (TRCC)  
Project Number: HWY-3311704-MS

*October 2015*



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## APPENDIX A

List of Acronyms



# Research Report

## Introduction

The 2015 Montana Traffic Records Strategic Plan (TRSP) will build toward the State's overall "Vision Zero" and its goal of eliminating deaths and injuries on Montana Highways. The TRSP focuses on traffic records data and organizations that report and influence these data.

This Research Report is an initial step in the 2015 Update to the TRSP. This report identifies Montana parties integral to traffic records data, summarizes national search efforts and presents interview findings from Montana-involved parties.

### *List of Interested Parties*

KLJ compiled a list of parties or organizations that interact with traffic records. The list was the basis for identifying interview candidates, often including multiple individuals from an organization, to seek their insights. Interested parties include:

- Montana Department of Transportation (MDT)
  - Districts
  - Information Services Division
  - Multiple Engineering Functions including Traffic And Safety
  - Planning
  - Management
  - Motor Carrier Services (MCS)
- Montana Department of Justice (DOJ)
  - Montana Highway Patrol (MHP)
  - Information Technology Services Division
  - Court System
- Local Law Enforcement (Agency or LEA)
- Tribal Governments
  - Confederated Salish and Kootenai Tribes (CSKT)
  - Crow Nation
- Bureau of Indian Affairs-Indian Health Service (IHS)
- National Highway Traffic Safety Administration Region 10 (NHTSA)
- Federal Highway Administration (FHWA)
- Montana Department of Health and Human Services (DPHHS)
  - Emergency Response Services (EMS or ERS)





## *Focus of Research*

The research is focused in two separate areas: national activities and individual (Montana) experiences. The national research includes a peer state review and defines specific requirements and steps occurring in other states as well as update on national funding. Identifying the goals and initiatives in other states' Traffic Records Strategic Plans provides insights for updating Montana's Strategic Plan.

Research with Montana departments and organizations that touch the data was obtained through a series of interviews and will help identify missing data or opportunities for new strategies or initiatives.

To supplement these research areas, two internet surveys are planned. One survey, for interactive users, was completed in September 2015. A second survey to a larger audience of traffic data users will be opened in November 2015. Results of both surveys will be reported in a future document as part of this project.

## National Research

### *Requirements to Receive Grant Funding*

Section 405c of Title 23 in MAP-21 continued the authorization (previously authorized in Section 408 SAFETEA-LU) of grant funds for the purposes of supporting the development and implementation of improvements to State traffic safety information systems.

MAP-21 Section 405 requires states to meet the following criteria to be eligible for receipt of grant funds:

- Have a functioning Traffic Records Coordinating Committee (TRCC) that meets at least three times per year - **Completed by MDT**
- Have a designated TRCC leader - **Completed by MDT**
- Have established a State traffic record strategic plan that has been approved by the TRCC and describes specific quantifiable and measureable improvements 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 - **Completed by MDT**
- Have demonstrated quantitative progress in relation to the significant data program attribute of: - **Completed by MDT**
  - Accuracy
  - Completeness
  - Timeliness
  - Uniformity
  - Accessibility
  - Integration of a core highway safety database
- Have certified that an assessment of the State's highway safety data and traffic records system was conducted or updated during the preceding five years - **Completed by MDT (ongoing as part of this project)**

Grant funds received by states are to be used for making improvements to core highway safety database related to quantifiable, measureable progress in data program attributes.

### *Draft DRIVE Act*

Review of the draft language for the DRIVE Act through 7/30/2015 indicated no proposed amendments or revisions to Section 405(c) of Title 23. At the time of this writing, no changes to grant funding authorization for traffic safety information systems improvements are anticipated. Policy language will be reviewed again prior to completion of the TRSPU.



## Peer States Activities

KLJ reviewed traffic records strategic plans from eight other states who authored or updated their strategic plans since the authorization of MAP-21. Since each state's plan is structured differently, this section provides an overview of each reviewed plan, rather than a direct comparison between plans. Each of the eight plans below are available online. Plan updates that were not available as of September 2015 were not considered.

The eight states included in the peer states comparison are highlighted in orange in the map below. Additionally, several more states (highlighted in yellow) were considered. These states however, did not have a compelling TRSP or ultimately offered little in the way of new information and are not included in this report.





## Peer States TRSP Overview

Tables 1, 2, and 3 overview the contents of each of the reviewed plans. Most states' plans are similar in content, while the structure of each report varies significantly. Table 1 shows a comparison of the TRSP documents date, author and length.

Table 1- Peer State TRSP Document Comparison

State	Date	Report Author	Document Length (pages)
Connecticut	2015	TRCC	144
Florida	2013	Consultant Cambridge Systematics	81
Idaho	2015	TRCC	31
Kansas	2013	Kansas DOT/TRCC	55
Michigan	2015	TRCC	56
Nebraska	2015	TRCC	44
North Carolina	2014	University of NC Highway Safety Research Center/TRCC	80
Oregon	2013	Oregon DOT/TRCC	47



Table 2 lists some of the components included in each states' TRSP. All of the states reviewed used a level of performance measures in their plan, although they varied in their identification and application.

*Table 2- Peer State TRSP Comparison*

State	NHTSA Traffic Records Assessment (TRA)	TRSP Updated Annually	Presents Performance Measures
Connecticut	2012	Yes	Yes
Florida	2011	Yes	Yes
Idaho	2011	No, As Needed	Yes
Kansas	2005	Yes	Yes
Michigan	2004, 2009, 2014	No, As Needed	Yes
Nebraska	2011	Unclear	Yes
North Carolina	2012	Yes	Yes
Oregon	2010	Will Be In The Future	Yes



Table 3 gives a snapshot of the plans' goals and objectives. In every case, each TRSP discusses strategies to meet these goals. In all but one case (Michigan), each TRSP discusses progress toward meeting the goals.

Other shared goals include improved coordination and data sharing among agencies as well as specific goals for their respective TRCC. The goals, strategies, and recommendations of each plan are presented differently, but this table and the bulleted summary below overview what peer states are using to drive their system improvements.

**Consistent State TRCC Goals:**

- » Improved automated crash reporting
- » Improved linkages (between all components of the traffic records system).

*Table 3- Peer State Goals and Objectives Comparison*

State	Goals/ Areas to Improve	Objectives/Strategies to Meet Goals Presented
Connecticut	> Data uniformity > Information sharing > EMS linkage	Yes
Florida	> Coordination > Data quality > The 6	Yes
Idaho	> Crash records > Citation and adjudication > TRCC/documentation	Yes
Kansas	> Traffic safety > Information sharing > Analysis	Yes
Michigan	> Crash data needs > Injury surveillance > TRCC/documentation	Yes
Nebraska	> Electronic crash reports > Enhances CODES > Improve NCJIS	Yes
North Carolina	> TRCC > Information systems > Injury surveillance	Yes
Oregon	> TRCC/Records inventory > Data collection > Data linking/training	Yes



## Peer States Highlights

Tables 1-3 provide a synopsis of goals, strategies, and recommendations in each peer state TRSP, the next pages detail each state's direction for their TRSP. The bulleted highlights of the TRSP plans below summarize details on specific goals, strategies, and recommendations.

### Connecticut - July 2015

- Primary focus: Electronic reporting
  - NEMSIS active since 2010
  - Began transitioning to MMUCC on January 1, 2015
  - Crash Data Repository (CDR - at UConn) has over 700 users, with access to crash, roadway and traffic volume data
  - Planned performance measures for 2015-2016
    - Crash uniformity - number of MMUCC compliant data elements entered into crash database
    - Crash accessibility and crash linkage - number of users in CDR
    - Citation timeliness - days from the issuance of a citation to database entry into the repository at Judicial
    - EMS patient care linkage - tracking patients from the point of injury to hospital discharge

### Florida - June 2013

- FHWA Crash Data Improvement Program (CDIP) held in May 2011
- NHTSA Traffic Records Assessment (TRA) completed in May 2011
- Progress updates completed annually
- Goals established with objectives guided by goals
  - Coordination: Provide ongoing coordination in support of multi-agency initiatives and projects which improve traffic records information systems
    - 5 objectives
  - Data quality: Develop and maintain complete, accurate, uniform and timely traffic records data
    - 6 objectives
  - Integration: Provide the ability to link traffic records data
    - 4 objectives
  - Accessibility: Facilitate access to traffic records data
    - 3 objectives
  - Utilization: Promote the use of traffic records data
    - 3 objectives

### Idaho - June 2015

- Plan objectives established as a result of traffic records assessment, crash data improvement program and other needs determined by agency members
- Projects prioritized based on which objectives and corresponding performance measures relate to system performance attributes (timeliness, accuracy, completeness, uniformity, integration, accessibility)
- Plan reviewed yearly and updated as appropriate
- Plan objectives
  - Crash records - 9 objectives
  - Roadway information - 2 objectives
  - Driver - 2 objectives
  - Vehicle - 3 objectives
  - Citation and Adjudication - 4 objectives



- Injury surveillance - 3 objectives
- TRCC - 7 objectives
- Strategic Planning - 5 objectives
- Data use and integration - 4 objectives

### *Kansas - March 2013*

- NHTSA TRA completed in 2005
- Plan reviewed and updated on an annual basis
- Strategic goals:
  - Traffic safety data goals
    - Automate data capture
    - Increase data completeness
    - Increase data accuracy
  - Information sharing goals
    - Improve timeliness
    - Increase consistency
    - Improve operational integration
    - Increased availability
  - Analysis goals
    - Improve analytical integration
    - Improved analysis capabilities
- Objectives guided by goals and split into:
  - Data objectives - 4 objectives
  - Efficiency objectives - 3 objectives
  - Utilization objectives - 3 objectives
  - Architecture objectives - 3 objectives
- Priorities set by addressing goals with the least progress made since established in previous iterations of the plan
  - Primary priorities - Citation and adjudication data, analytical data integration, analytical
  - Secondary priorities - Driver data, vehicle data, incident data

### *Michigan - May 2015*

- NHTSA TRA completed in 2004, 2009 and 2014
- Recommendations
  - Crash data
    - Improve the procedures/process flows for the crash data system that reflect best practices identified in the Traffic Records Program Assessment Advisory
    - Improve the interfaces with the Crash data system that reflect best practices identified in the Traffic Records Program Assessment Advisory
    - Improve the data quality control program for the Crash data system that reflects best practices identified in the Traffic Records Program Assessment Advisory
    - Citation/Adjudication
    - Improve the description and contents of the Citation and Adjudication systems that reflect best practices identified in the Traffic Records Program Assessment Advisory



- Improve the data dictionary for the Citation and Adjudication systems that reflects best practices identified in the Traffic Records Program Assessment Advisory
- Improve the data quality control program for the Citation and Adjudication systems that reflects best practices identified in the Traffic Records Program Assessment Advisory
- Vehicle
  - Improve the applicable guidelines for the Vehicle data system that reflects best practices identified in the Traffic Records Program Assessment Advisory
  - Improve the data quality control program for the Vehicle data system that reflects best practices identified in the Traffic Records Program Assessment Advisory
- Driver
  - Improve the description and contents of the Driver system that reflect best practices identified in the Traffic Records Program Assessment Advisory
  - Improve the interfaces with the Driver data system that reflects best practices identified in the Traffic Records Program Assessment Advisory
  - Improve the data quality control program for the Driver data system that reflects best practices identified in the Traffic Records Program Assessment Advisory
- Injury Surveillance
  - Improve the description and contents of the Injury Surveillance systems that reflect best practices identified in the Traffic Records Program Assessment Advisory
  - Improve the interfaces with the Injury Surveillance systems that reflect best practices identified in the Traffic Records Program Assessment Advisory
  - Improve the data quality control program for the Injury Surveillance systems that reflects best practices identified in the Traffic Records Program Assessment Advisory
- Roadway
  - Improve the applicable guidelines for the Roadway data system that reflects best practices identified in the Traffic Records Program Assessment Advisory
  - Improve the data quality control program for the Roadway data system that reflects best practices identified in the Traffic Records Program Assessment Advisory
- Data use and integration
  - Improve the traffic records systems capacity to integrate data that reflects best practices identified in the Traffic Records Program Assessment Advisory
- TRCC
  - Have a readily-available list of potential projects to facilitate the use of or application for awards of grants that involve databases which make up the traffic records system
  - Michigan should continue to focus on a comprehensive Traffic Records Inventory
  - Representatives from all aspects of the Injury Surveillance System (ISS) should be included on the TRCC
  - Conduct a training needs assessment to ascertain any aspects of the Traffic Records System for which TRCC members feel they need additional training
  - Ensure all components of the Traffic Records System establish performance measures
- Strategic Planning



- Established a separate section within the TRCC Strategic Plan for completed projects for historical purposes
- Create a matrix of performance measures for each TRCC Strategic Plan project

### *Nebraska - April 2015*

- NHTSA TRA completed in July 2011. Next assessment September 2015.
- Projects and priorities identified through deficiencies identified through TRA and by TRCC members
- Plan priorities:
  - Prioritize the effort to enable the Omaha Police Department to establish the capability to submit electronic crash reports in real time that will interface with the state's core traffic records data systems.
  - Expand electronic crash data submission to the Nebraska Department of Transportation's Crash File.
  - Enhance the Nebraska Department of Motor Vehicles (DMV) Driver/Vehicle Record Files.
  - Enhance and expand the Crash Outcome Data Evaluation System (CODES) infrastructure.
  - Nebraska Criminal Justice Information System (NCJIS) and the NCJIS System Improvements.
  - Determine if a Citation Tracking System can be implemented.
  - Consider funding support for Jail/Prosecutor data interface and TracS software local installation.
  - Examine use/utility of the Model Impaired Driving Records Information System (MIDRIS) DUI tracking system.
  - Challenge the TRCC to continue the development of the new Strategic Plan for the state's traffic record system.

### *North Carolina - June 2014*

- NHTSA TRA completed in January 2012
- Projects identified to address deficiencies in the traffic records system
- Prioritization process to be developed, once resources are available
- Established overarching goals, with objectives identified to meet these goals
  - *TRCC*: Provide direction and facilitate coordination among the safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina:
    - 7 objectives
  - *Crash Information Systems*: Maintain the crash data system and expand the capabilities of the system to allow the state to use this data to track crash injury/fatality experience for use in court cases, safety improvement studies and evaluating State driving statutes.
    - 12 objectives
  - *Citation/Adjudication Systems*: Maintain and update North Carolina Administrative Office of the Courts databases and oversee the proper movement of court information and data, while centralizing information and creating citation/sharing procedures for the citation and adjudication records.
    - 7 objectives
  - *Injury surveillance systems*: Evaluate the need for an feasibility of a Statewide Surveillance Injury System
    - 1 objective



- *Roadways Information Systems*: Continue to maintain and expand an up-to-date statewide inventory of all North Carolina roadways that allows the State to track roadway changes and improvements and permits enhanced safety analysis
  - 5 objectives
- *Driver information systems*: Continue to maintain and update the North Carolina driver license record data to be used in road safety and statistical analysis and to track all North Carolina drivers and the driving records according to North Carolina law
  - 1 objective
- *Vehicle information systems*: Continue to maintain and update all North Carolina vehicle registration record data for the state to be used in road safety studies and statistical analysis and to ensure all vehicles are properly license according to the laws on North Carolina
  - 2 objectives

### *Oregon - February 2013*

- NHTSA Traffic Records Assessment (TRA) completed in 2010
- Plan recommendations
  - System-wide recommendations
    - Strengthen TRCC
    - Develop a traffic records system inventory to assist users in identifying data sources and analytic resources
    - Address and correct the systemic carriers to full crash reporting
  - Data collection recommendations
    - Encourage electronic citation issuance statewide
    - Encourage law enforcement reporting of crashes
    - Electronically image crash reports when received at DMV and immediately share those images with the Crash Analysis Reporting Unit operation
    - Implement electronic data collection of crash reports and electronic data sharing
    - Improve data quality measurement
    - Support expansion of GIS and use of map locator software or GPS use
    - Enhance medical data collection and availability
  - Data linkage recommendations
    - Develop links between components of the traffic records system
  - Training recommendations
    - Expand the enforcement conference training concept
- Project prioritization considered the statewide effect, how the projects would add value to agencies, the complexity and importance of the projects, associated costs, likelihood of success, how the projects fit into established priorities and objectives, and whether or not the projects could leverage other projects or improvements.



## Interview Summary

Interviews were held in September and October of 2015 with the purpose of obtaining insight on existing vehicular crash data and its application toward improving the safety on Montana's public roadways. The individuals interviewed were identified as persons that met one or more of the following criterion:

- Participate in the TRCC
- Provide traffic safety data
- Use traffic safety data
- Are responsible for delivering a component of public vehicular safety.

The cumulative results of the interviews focused on identifying gaps in data, needs to improve (the data usage for) vehicular safety, and opportunities for identifying and leveraging funding. Tables 4 and 5 summarize the interviews. Key findings are listed below with interview summaries in the following pages and meeting minutes available through the TRCC Chair.

### *Key Interview Findings:*

- TRCC provides a singular opportunity for sharing information between agencies involved in various individual pieces (silos) of vehicle crash data for the overall goal of improving public safety. Often, there is no direct mechanism for agencies to collaborate in this manner.
- The following were consistently mentioned as good investment and strong result from continued TRCC support:
  - TRCC collaboration
  - SIMS upgrade
  - Smart-Cop upgrade and training for MHP
  - Funding source for data storage/transfer/collaboration
- TRCC and TRSPU visibility is affected by a lack of a high-level champion for integrated use of vehicle crash data
- Interworking of TRCC may be lost, due to attrition and lack of current members (or interviewees) knowledge and lack of effort to share what people do (in their daily jobs) with the TRCC and its subsequent impact on the TRSPU.
- Tribal data on six of Montana's seven reservations is not provided to the MHP or MDT reporting systems unless a fatality (or possibly a serious injury when MHP is called to complete or assist the investigation) is involved. Reporting of crash data is subject to limited resources for tribal enforcement, sovereignty and variable Tribal Council issues with providing data outside of tribal use.
- Data transfer was consistently identified as a need.
- Accuracy (or clean data) was intermittently identified as a need.
- Data collection (hardware or software) and completeness were rarely identified by interviewees as a need. <sup>1</sup>
- Timeliness was not identified as a need.

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<sup>1</sup> Tribal data was not frequently identified as missing. However, interviewer felt that interviewees were often unaware of the lack of data and therefore, did not cite as data collection need.



Table 4 summarizes the interviewee’s role, as a provider of vehicular crash data or as a user of crash data.

*Table 4- Summary of the Roles of the Interviewees*

DATA PROVIDER				DATA USER			
AGENCY NAME		Collection	Assembly	Distribution	Analysis	Reporting	Transfer
FHWA							
TRIBAL	CSKT						
	Crow Nation						
	BIA						
DPHHS							
DOJ	Courts						
	DMV						
	MHP						
LEA's							
MDT	Safety						
	Planning						
	Administration						
	Maintenance						
	Pavement						
	Planning-SOAR						
	District						
	MCS						



Table 5 summarizes the missing elements (gaps) identified during the interviews while Table 6 provides comments concerning these gaps.

*Table 5- Summary of Data Gaps Identified by the Users*

Data/Systems Gaps							
AGENCY NAME		Hardware	Software	Transfer	Accuracy	Timely	Complete
FHWA							
TRIBAL	CSKT						
	Crow Nation						
	BIA						
DPHHS							
DOJ	Courts						
	DMV						
	MHP	(photos)	(photos)				
LEA's							
MDT	Safety						
	Planning						
	Administration						
	Maintenance						
	Pavement						
	Planning-SOAR						
	District						
	MCS						



Table 6- Comments on Data Gaps

Data/Systems Gaps		Comments					
AGENCY NAME	Courts	Health	Tribal	LEA	MDT- Physical Road Data	METRIC	Champion/ Awareness
FHWA	Large Data		Missing Data				Needed
TRIBAL	CSKT						
	Crow Nation		Missing Resources No Data Integration				
	BIA						
DPHHS		Trauma Definition					Completing Priorities-is crash data that vital?
DOJ	Courts	Large, complex Data	Tribal Courts are not included				Data effects Policy/ Legislative Decisions
	DMV	Data Sharing Issues					Data effects Policy/ Legislative Decisions
	MHP		Injury Definition	Non-consistent w/ MHP requirements	MHP officers have other priorities, difficult to obtain correctly		
LEA's							
MDT	Safety				Physical Road Inventory not linked		
	Planning					Needed	
	Administration						
	Maintenance						
	Pavement				Physical Road Inventory not linked		
	Planning-SOAR		Missing Data & Limited Resources				
	District		Missing Data		Physical Road Inventory not linked, include Utility & ROW Easements		
	MCS					Needed	Needed



## *Individual Interview Findings:*

### DPHHS (Health Department):

Data Base Systems include Trauma Registry (fatal, surgery/higher-level-of-care), NEMSIS (National Emergency Management System Information System), Pentaho (pre-hospital registry and trauma registry), Patient Care Record Systems.

- Accessible: Privacy issues are challenge.
- Accurate: NEED:
  - Determination of trauma is not provided by health-care specialists.
  - Clarify “serious/incapacitating injury” (SIMS protocol) versus trauma definition (health).
- Complete: No.
  - Hospital size (staff) dictates how hospital submits electronic, web-based or other.
  - 8 of 63 hospitals do not report.
- Integrated: No.
  - NEED: Link Trauma Registry (or Pentaho) into SIMS and ensure privacy.
  - Court data is not integrated.
- Timely: Varies. Hospital sizes dictate timeliness.
- Uniform: Varies due to reporting by multiple hospitals/EMS volunteers, etc.
- Comments:
  - (TRCC) decisions can affect public policy.
  - Need metrics for (future TRCC) decisions.
  - NHTSA is funding performance measure study, EMS COMPASS, expected summer 2016.
  - EMS is shifting to volunteer responders-what is their role in data recordation?

Privacy challenges.  
43% of traumas are traffic related.  
35% of traumas arrive by non-ambulance/EMS.

### DOJ/COURTS INFORMATION

Data Base Systems include:

- Smart Cop (reports vehicular incidents with citations, electronically links into Full Court)
- Full Court (individual court system data, flow and links into Broker)
- Broker (tracks citations, link from Full Court to CHRS and currently used by 2 counties)
- CHRS (Criminal History Rap System and links from Broker),
- MERLIN (Montana Enhanced Registration and Licensing Information Network which links from Broker)
- CMS or RMS (Case or Records Management System) is currently being updated and is the local court system
- CEGIS
- Select list of other systems with limited interaction with vehicle crashes:
  - IBRS (Individual Based Report System)
  - JMS (Jail Management System),

Vehicle incidents only enter court system if citation is issued.  
Court Document Systems vary between 90 independent courts.  
Only 12% of courts report electronically.



- CJIN (Criminal Justice Information Network),
- Accessible:
  - Smart Cop links into Full Court for reporting citations/vehicular crash.
  - Web-crash entries cannot access driver license database due to no CEGIS access.
  - Privacy Concerns.
  - Should SIMS data transfer into Full Court?
- Accurate:
  - Paper and repeat entries.
  - Smart Cop entry may not be clean data (e.g. multiple driver license)
- Complete:
  - No Tribal Court data.
- Integrated:
  - Court systems are very complex.
  - Criminal systems are incomplete.
  - Interface of safety data with court data is complex. Does outcome justify more effort/funding?
- Timely
- Uniform:
  - Lack of consistent data.
  - Reports may show different results (due to different and unreconciled data sources)
- Comments: Complexity of the many justice-system databases makes complete documentation challenging.

### DOJ/MONTANA HIGHWAY PATROL

Data Base Systems include Smart Cop which links into SIMS. Web-based crash system is available to LEA for reporting into SIMS.

- Accessible:
  - Upload directly into SIMS.
  - Others-Privacy Issue. MHP will release records to affected individuals upon request.
  - Web-based system does not allow access into DOJ or DMV databases. Requires hand entry.
- Accurate:
  - NEED: medical personal to determine seriousness of injury (not enforcement).
  - NEED: flexibility in not-completing all MMUCC data fields.
- Complete:
  - Road Data is not collected. Need: link Smart Cop (to other system) to avoid loading officer with responsibility.
  - Photos are not uploaded.
  - Supervisor approval required before upload to SIMS.
- Integrated: Yes with SIMS, driver and vehicle license.
  - Officer manually enters driver & vehicle numbers (no scanning).
- Timely:
  - Investigation may extend over period of time.
  - 10 day submittal of incident report without fatality.
  - With fatality, report typically within 30 days to allow investigation.
- Uniform:
  - Yes by MHP due to continual training.
  - Varies by LEA due to lack of training and resources.



## DOJ/DEPARTMENT OF MOTOR VEHICLES

Data Base Systems include MERLIN (vehicle registration and license plate data).

- Accessible:
  - MERLIN does not link into SIMS.
  - Driver information is migrating into MERLIN.
  - Privacy issues.
- Accurate:
  - Field data is not clean. (based upon older comparison of site conditions and DMV records)
  - Traffic records are not cleaned up (e.g. duplicate driver names)
- Complete:
  - Incomplete record of traffic crash can result from non-appearance or bond forfeitures (after citation).
  - DMV system does not recognize repeat charges if previous charges did not result in conviction.
  - No tribal data (vehicular or driver).
- Integrated:
- Timely:
  - Court reports are delayed.
- Uniform:
  - Driver can be identified in multiple ways and therefore have repeat or missing records.
  - Vehicle license can be repeated between counties or special plates.
- Comments:
  - DMV only deals with convictions, not citations. Data appears on DMV record after citation, court appearance and possible sanction.
  - DMV only list crash on driver record if convicted of a causality-related citation.
  - DMV supplies data to legislative inquiries, public behavior campaigns or DPHHS compliance monitoring.
  - Need: update comparison of driver records versus Smart Cop records to determine consistency.

Crash shown on driver record only if convicted of a causality-related citation.

## MDT-PLANNING

Data Base Systems include SIMS, TDMS (Traffic Data Management System), FARS (Fatality Analysis Reporting System).

#1 cause of injury on tribal roads is Lack of Seat Belt Use

- Accessible:
  - Can tribal data input be funded? (By tribal health or enforcement staff).
  - Tribal data may not be shared due to unresolved confidentiality/sovereignty issues.
- Accurate:
  - Use of MMUCC data protocol since 2008 has benefits.
- Complete:



- MIRE data requirements are excessive resulting in incomplete road data.
- Integrated:
  - MMUCC protocol matches national requirements.
  - Beginning integration with TDMS and SIMS.
  - NEED: Integration with Bridge and Pavement systems.
- Timely:
- Uniform:
- Comments:
  - Need metrics for (Future TRCC) decisions
  - Need data-driven decisions.
  - STEP program visibility is benefit for overall safety (on and off roads).

## MDT-SAFETY

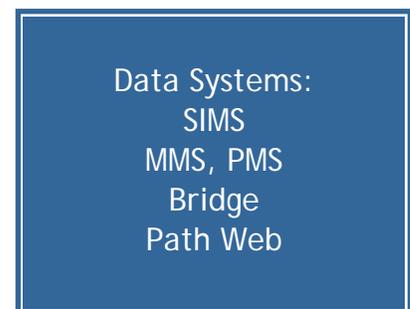
Data Base Systems include SIMS.

- Accessible: Internal to MDT.
- Accurate: MDT Safety Staff work to correct inaccurate data entered into SIMS.
- Complete:
  - NEED: Physical road inventory integration into SIMS.
  - NEED: Signing inventories and speed zone integration into SIMS.
- Integrated:
  - Future signal technology is migrating toward central system software. Potential future integration.
  - LEA reporting does not integrate with SIMS.
- Timely:
  - Fatal crashes are not entered into SIMS until report is complete.
- Uniform:
- Comments:
  - HSIP memo succinctly presents safety program. Why is this memo needed and how does it overlap with CHSP?

## MDT-ENGINEERING INCLUDING ADMINISTRATION, MAINTENANCE, DISTRICT

Data Base Systems include SIMS (Safety Information Management System), PMS (Pavement Management System), MMS (Maintenance Management System), Path Web (Road viewing tool), Bridge System (was not interviewed)

- Accessible: Internal to MDT.
- Accurate:
  - PMS records road (pavement) conditions at intervals along 22,000 lane-miles. Used to establish pavement metrics for programming maintenance and construction.
- Complete:
  - MMS can identify physical features (GPS or reference post system). Can this be linked to SIMS?
  - Are repeat-maintenance locations identified for possible project safety improvements? (E.g. repeat attenuator replacement, etc.)
  - Lack of Tribal data.
- Integrated:
  - NEED: Integrate with court data to effect behavior issues.





- Seek to integrate all spatially related data including right-of-way, as-built plans and utility permits.
- Timely:
  - EMS response time is issue, how is it incorporated?
- Uniform:
- Comments:
  - Construction and Maintenance bureaus should be able to access same (physical) data.

### TRIBAL POLICE-CSKT

Data Base Systems include Smart Cop (on CSKT and fatal accidents). No reporting from other tribes on non-fatal accidents.

- Accessible:
  - CSKT officers record incident in office, after completing site investigation. Dual entry. NEED: computers in vehicles for recording.
- Accurate:
  - CKST officers are trained in Smart Cop. Require supervisor approval before link to SIMS.
  - MHP currently called for fatal crashes (all tribes)
  - LEA officers record when called, and on non-tribal member crashes on CSKT
  - NEED: CSKT Electronic transfer of citation to Court (tribal or local). Currently, carbon copy transfer requires additional entry.
- Complete:
  - Court data (DUI) is not complete (e.g. multiple DUI records).
- Integrated:
- Timely:
  - Court citation actions are slow.
- Uniform:
- Comments:
  - NEED: Printers in vehicles for citations (for CSKT).

### TRIBAL POLICE-CROW NATION

No internal data base system. Injury reports are submitted to BIA.

Crash Reporting:  
TPO (injury only to BIA)  
LEA (MCS & non-tribal)  
MHP (fatal only)

Note-there is currently no Traffic Code to define legal operations, vehicles, drivers, etc. on this reservation. Note-there is no cross-jurisdictional agreements (for law enforcement across tribal boundaries).

- Accessible:
  - Paper forms are used and submitted to BIA. BIA does not release data without Tribal Council Permission.
  - NEED: computers, systems and training for recording.
- Accurate: No, due to multiple parties reporting and lack of PDO

reports.

- MHP is called record/report fatal accidents and data is entered into SIMS.
- LEA (County) is called to record/report when a commercial truck (MCS) or non-tribal member is involved.
- TPO reports crash data but to BIA ONLY if an injury occurs.
- Limited training for TPO.
- NEED: Consistent method of tracking crash data.



- Complete: No.
  - TPO Chief estimated responding to 30-40 crashes during each winter season that are not reported into MDT systems.
  - No report for PDO.
- Integrated: No. Tribal Council does not currently support sharing data.
- Timely:
- Uniform:
  - Tribal Safety Officer could potentially enter data (for consistent format) but difficult position to keep filled.
- Comments:
  - NEED: Crow Nation does not have resources to seek safety funding improvements due to lack of crash data.
  - NEED: Educational effort to inform Tribal Council of benefits to members that could result from crash reporting. Potential high-level interaction. Needs to be continual as councils change representation and views.
  - NEED: Provide SIMS data (in addition to FARS data) back to Police Chief (and possibly BIA).

### BIA-INDIAN HEALTH SERVICES

Data Base Systems include WISQARS (Web-based Injury Statistics Query and Reporting Systems), ESRI GIS.

BIA Indian Health Services is responsible for injury prevention and, ultimately, saving lives. BIA is very data driven and various organizations report tribal data to BIA.

- Accessible:
  - FARS data is not available.
  - IHS funds a sanitarian position for each tribe, who spends approximately 25% of time on injury prevention. Possibility of collecting vehicle injury data from health source (not enforcement source). Funding and training would be needed. Each tribe would need to concur.
  - BIA previously funded CISCO for vehicle crash data but has had intermittent use and funding.
- Accurate:
- Complete:
- Integrated:
- Timely:
- Uniform:
- Comments:
  - BIA funding often requires data to show a lack or need. If no data is available, how do you demonstrate the need for BIA funding?
  - Each tribe has a Law Enforcement Board and an Injury Prevention Board. Could data help these Boards save lives?
  - Montana-Wyoming Tribal Leaders Council has regular meetings and may provide a venue for education on benefit of reporting crash data....to improve safety via funding. Needs long-term relationship.

### FHWA

Systems include IHSDM (Interactive Highway Safety Design Module).

- Accessible:



- Accurate:
- Complete:
  - Tribal Data is missing.
  - Court Data is missing.
  - LEA Data is missing.
  - MIRE data format may not be fully completed.
  - Road (physical) data is missing.
- Integrated:
  - Integrate PMS with SIMS.
- Timely: Past TRCC projects languished and tied up funds for years.
- Uniform:
- Comments:
  - Internal MDT Safety Committee-role with TRCC?



APPENDIX A: List of Acronyms

Acronym	Definition
BIA	Bureau of Indian Affairs
CDIP	Crash Data Improvement Program
CDR	Crash Data Repository
CHRS	Criminal History Rap System
CJIN	Criminal Justice Information Network
CJIS	Criminal Justice Information System
CMS	Case Management System
CODES	Crash Outcome Data Evaluation System
CSKT	Confederated Salish and Kootenai Tribes
DMV	Department of Motor Vehicles
DOJ	Montana Department of Justice
DPHHS	Montana Department of Public Health and Human Services
EMS or ERS	Emergency Response Services
FARS	Fatality Analysis Reporting System
FHWA	Federal Highway Administration
IBRS	Individual Based Report System
IHS	Bureau of Indian Affairs - Indian Health Service
ISS	Injury Surveillance System
JMS	Jail Management System
LEA	Local Enforcement Agency
MCS	Motor Carrier Services
MDT	Montana Department of Transportation
MERLIN	Montana Enhanced Registration and Licensing Information Network
MHP	Montana Highway Patrol
MIDRIS	Model Impaired Driving Records Information System
MIRE	Model Inventory of Roadway Elements
MMS	Maintenance Management System
MMUCC	Model Minimum Uniform Crash Criteria
NCJIS	National Criminal Justice Information System
NSTSA	National Highway Traffic Safety Administration
PMS	Pavement Management System
RMS	Records Management System
STEP	Supplemental Traffic Enforcement Program
TDMS	Traffic Data Management System
TPO	Tribal Police Office
TRA	Traffic Records Assessment
TRCC	Traffic Records Coordinating Committee
WISQARS	Web-based Injury Statistics Query and Reporting Systems

# APPENDIX B



## SWOT ANALYSIS REPORT

# SWOT Analysis Report:

## 2015 Traffic Records Strategic Plan Update

Prepared for:

Montana Department of Transportation,  
Traffic Records Coordinating Committee (TRCC)

*October 2015*

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# SWOT Analysis Report

## Introduction

A SWOT (Strengths, Weaknesses, Opportunities & Threats) analysis is a simple tool to help groups and agencies work out the internal (Strengths and Weaknesses) and external (Opportunities and Threats) factors impacting the functionality and success of an agency or collaborative group of participating agencies. This commonly used business tool assists in building strengths, minimizing weaknesses, seizing opportunities and counteracting threats.

This report is a part of the 2015 update to the Montana Traffic Records Strategic Plan (TRSP). A summary of SWOT can be found in the table on Page 2. The remainder of the report provides more detailed written descriptions within each SWOT category.

It is important to acknowledge that although SWOT analysis is an excellent and low cost tool for understanding overall group functionality, outlining group dynamic, and identifying potential gaps in information and/or process, it is also limited in scope and application. SWOT analysis is raw data, which means the analyses and corresponding SWOT report will not prioritize issues, provide solutions, offer alternatives, or outline tasks necessary to address any identified strengths, weaknesses, opportunities or threats.

### *SWOT Participants*

On October 6, 2015, KLJ facilitated a SWOT analysis meeting in Helena that engaged available members of the Traffic Records Coordinating Committee (TRCC). In addition, SWOT information was gathered by KLJ during several individual stakeholder and member interviews. Information garnered from individual stakeholder interviews will denoted using *italics* in the SWOT text.

Participating parties in the October 6, 2015 meeting included:

- Montana Department of Transportation (MDT)
  - Planning
  - Motor Carrier Services (MCS)
- Montana Department of Justice (DOJ)
  - Montana Highway Patrol (MHP)
  - Court System



## SWOT Analysis Summary Table

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Individual agency work</li> <li>• Commitment of people involved</li> <li>• Regular TRCC meetings</li> <li>• Sharing of information</li> <li>• TRCC funding of strong individual projects (SIMS and SmartCOP)</li> <li>• Reduction of agency “silos”</li> <li>• Ability to make decisions quickly and respond to trends/needs</li> <li>• Crash data and Court data both much improved</li> <li>• TRSP useful in defining issues/questions and data elements</li> </ul>	<ul style="list-style-type: none"> <li>• Tribal crash data</li> <li>• TRCC focus on current funding only</li> <li>• Lack of overall strategy “umbrella” and long term vision</li> <li>• Difficult to document project outcomes (in addition to outputs)- Quantitative vs. Qualitative documentation</li> <li>• TRCC is largely invisible</li> <li>• Lack of internal member education</li> <li>• Disconnect between the TRCC and the steering committee</li> <li>• No TRCC champion</li> <li>• Lack of ongoing/refresher law enforcement training</li> <li>• Ongoing data weaknesses/gaps and lack of data integration</li> <li>• Inconsistent use of tools (several jurisdictions still handwriting reports)</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Increased connectivity of state agencies overall</li> <li>• More groups willing to share data</li> <li>• State records management review that could improve transparency and storage of data</li> <li>• Potential new funding opportunities</li> <li>• Movement for federal standardization</li> <li>• Opportunity for increased training of law enforcement</li> <li>• MHP single point of contact for fatality reports (consistency)</li> <li>• Significant opportunities in SIMS for linkage with other data systems</li> <li>• MDT Enterprise Architecture currently under review</li> <li>• Maintenance Management System scheduled to come online in 2016</li> <li>• Opportunities for better info-sharing and education with Tribes</li> <li>• Utilization of inter-agency connections to support/educate regarding TRCC/TRSP</li> <li>• IHC/injury prevention</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of potentially necessary partners</li> <li>• Funding uncertainty at all levels (State and Federal)</li> <li>• Any outside perception of data weaknesses/gaps</li> <li>• Lack of consistent participation if there is staff turn-over or changes in supervisory support (TRCC is not institutionalized/legislatively mandated)</li> <li>• Mandated changes to privacy guidelines could lead to less data sharing</li> <li>• Comparing Montana to other state standards/expectations</li> <li>• Tribal councils turnover impacts the ability to get consistent data on Reservations</li> </ul>



## Strengths

The following are those components of the TRCC and TRSP which are believed to be assets, performing well, and/or meeting expectations.

- Individual agencies have great strength in their scope of work autonomous of the TRCC.
  - The TRCC mission (umbrella mission) ties to individual agency missions well.
- Those people involved in the TRCC and TRSP care about the mission and want positive outcomes.
- TRCC has maintained regular meetings and core member commitment.
- Everyone is sharing information and resources at the TRCC table.
  - There is improved agency cooperation and communication.
  - The TRCC provides a venue to hear about and understand what everyone is doing in their individual agencies/departments, reducing the silo work environment that sometimes occurs between particularly state agencies.
  - The TRCC brings various areas of expertise to one table allowing for identification of potential gaps/weaknesses in participating stakeholder systems that might not be otherwise identified by the individual agency.
- TRCC has funded several strong individual projects (e.g. SIMS and SmartCop).
  - TRCC has successfully aided agencies in leveraging outside funding and/or successfully supplemented other funding to allow for completion of projects.
- There is minimum “overhead” time. The TRCC can make decisions quickly.
  - TRCC is not tied to one-time-per-year application dates and can accept and review applications frequently and throughout the year.
  - The group is nimble, having the ability to convene and make decisions relatively quickly and respond to trends/needs.
- Current crash data is much improved in consistency, uniformity, timeliness and accuracy.
  - Court data is also improved.
- The current TRSP has been useful in defining what issues/questions needed to be answered and in identifying data elements and their location.

Strengths are defined as internal in that they are those factors within the control of the group members.

## Weaknesses

The following are those components of the TRCC and TRSP which are believed to be a disadvantage, a problem or a current gap in services, data, communications or other aspect of functionality or deliverable.

- Tribal traffic/crash data is inconsistent and incomplete.
- TRCC tends to focus on the group’s current funding mechanism, causing the group to overlook or miss potential other grants/funding resources that might be available.

Weaknesses are defined as internal in that they are those factors within the control of the group members.



- Individual projects do not necessarily fit into a larger overarching strategy.
  - Projects are not necessarily sustainable (TRCC funding is generally a one-time award).
  - Because of the current “one and done” funding process, long term TRCC vision is lacking.
  - There is no balance between “right now” funding and long term funding needs.
  - Projects often fit into an individual member agency strategy, but there is currently no discussion of a larger “umbrella” TRCC mission.
  - Projects come to the TRCC unsolicited resulting in funding decisions that are reactive vs. proactive.
  - Because individual agencies still have to do the “heavy lifting” in regard to projects/goals, current TRCC strategy aligns with individual agency strategies as needed.
  - The current tendency of the TRCC and TRSP is to focus on project outputs but not project outcomes.
- There is currently no mechanism in place to verbalize and/or document qualitative as well as quantitative benefits (currently almost exclusively quantitative).
- There is a lack of understanding, visibility and common education as to what everyone else in the TRCC (and outside stakeholders) does and how traffic data is used by individuals. (e.g., Why is a specific project important? How do projects fit into the overall goals/agency strategies?).
  - Key representatives are not at the TRCC table - key stakeholders and additional data from those stakeholders may be missing from the process.
- TRCC is a largely “invisible” group, resulting in the potential that stakeholders don’t know the group exists and therefore don’t know they could contribute (this is supported by outside interviews in which individuals/agency personnel indicated they were unaware the TRCC existed).
  - There is no sharing of institutional knowledge or succession planning within the TRCC.
  - There is no initial education of new members when they join the TRCC (e.g. information such as the TRCC mission, acronyms, voting status is not provided).
  - There is a lack of knowledge of TRCC resources and what is already in place (e.g. some of the TRCC members did not know there was a TRCC webpage or charter).
  - TRCC members are unaware if they have a business charter (e.g. roles, responsibilities, organizational structure, voting rights).
  - There is a disconnection between the TRCC and the Steering Committee. Committee members are unsure of the Steering Committee’s purpose. This has resulted in the Steering Committee meeting the required structure, but perhaps not the intent.



- TRCC does not have a “champion” at a high level (Steering Committee is also unaware of the TRCC and their role).
- Ongoing training for law enforcement is lacking. Officers need ongoing/refresher training on crash reporting and data entry.
  - Injury status reporting is inconsistent. Law enforcement officers are not health care professionals, yet they determine “serious or incapacitating injury” results in the field which results in inconsistencies or inaccuracies.
- There continue to be data “weaknesses”/needed data improvements:
  - Only about 50% of applicable users/agency personnel are using SmartCop.
  - The largest four counties do not utilize Webcrash to report crash data.
  - Several jurisdictions continue to handwrite reports and manually transfer data. Transfer points can get “muddy” (this is of particular concern if there are multiple transfer points).
  - Interfacing and integration of data systems is very complex and data systems are not fully integrated. Some systems interface with other systems, but there are several interface gaps/lack of data integration.
  - There is little or no after-the-fact data accuracy checking.
  - There are continued “gaps” in data (particularly Court and Tribal data).
  - Montana statute states DMV can only record information on drivers’ license records if someone is convicted of a causality-related citation. This is a limiting factor for data collection for the TRCC.
  - Data is not always clearly defined (e.g., “excessive speed” could be 35 miles per hour (mph) or 90 mph depending on the circumstances).

## Opportunities

The following are those opportunities which are believed to be an asset to the TRCC and/or the TRSP. External opportunities include trends, technologies and funding that have the potential of benefitting the group and the work being done.

- In general, state agencies have experienced increased connectivity and reduction of agency “silos.” There are more agencies/partners willing to share data and expertise and more technology to allow for this.

- *Data available from emergency medical services (EMS) is potentially improving.*

*Department of Public Health and Human Services (DPHHS) is in the process of upgrading their data system which may allow for better interfacing with and access to this data set.*

Opportunities are defined as external in that they are those factors that are not necessarily in the control of the group providing the input.



- State records management is currently under legislative committee review and could result in changes that would make data storage and use more transparent.
- There are potential new funding opportunities and existing funding opportunities that have not yet been researched or accessed.
  - There are opportunities to tie overall TRCC strategy to a variety of funding resources.
  - Funding for data links and interfaces (for example, EMS to SIMS) is most needed.
  - There is an opportunity to potentially balance “one and done” and a long term mission funding with broader funding availability.
- Data access, speed of input and accuracy would be much improved with automation of crash data in the four largest reporting communities.
- There is currently movement on the federal level for national records-standardization of driver information across states.
- There is an opportunity for increased and refresher training for law enforcement officers and supervisors, including supervisor training for faster and more accurate approvals of incident reports.
- Montana Highway Patrol (MHP) now has a single point of contact (expert) for fatality report review and confirmation/quality assurance.
- There are significant opportunities in the SIMS system for linkage with other data systems and to acquire and compile more data.
  - *FHWA currently has the architecture and standards for deployment for data linkage (Intelligent Transportation System - Interactive Highway Safety Design Module). There is a potential opportunity to utilize data linkage tools and frameworks already in existence to aid in data linkages currently missing in Montana.*
  - MDT Enterprise Architecture is currently under review (Maintenance Management System (MMS))
  - There is potential to tie into the crime lab data for further data discernment (e.g., access to specific toxicology results for non-fatal accidents).
    - Montana Board of Crime Control utilizes Individual Based Report System (IBRS). There is a potential to link to this system and/or to utilize this system for trend analysis.
  - There are additional data sets that might enhance/improve outcomes such as data that would impact policy change and data that might impact environmental change (e.g., change of driving environment).
  - *The MMS is scheduled to come on-line at MDT in early 2016, replacing the 1980's Oracle system. The timing of this change may be an opportunity to support funding for integration of MMS and SIMS. In similar fashion, there is an opportunity to link pavement management system (PMS) data to SIMS.*
- There are ongoing opportunities for continuing to reinforce/or expand relationships and educational opportunities with Tribal entities, including opportunities to educate Tribal Councils on the benefits of data sharing.



- Could TRCC provide funding to Tribal staff, perhaps even outside transportation staff, to enter data (e.g., law enforcement or health services staff)?
- TRCC could be utilizing current inter-agency connections, conferences and other meetings or gatherings as well as the media to garner additional understanding of the importance of the data collection and the work/purpose of the TRCC.

## Threats

The following are those threats which are believed to be a potential problem or barrier to the ongoing effectiveness of the TRCC and/or TRSP.

Threats are defined as external in that they are those factors that are not necessarily in the control of the group providing the input.

External threats include trends, policies or changes in funding that have the potential of becoming a barrier or hindering the ongoing functionality of the group and the work being done.

- An absence of necessary partners and connectivity might result in incomplete data and subsequently decisions regarding funding could be adversely affected.
- There is funding uncertainty at all levels (Federal and state), impacting the ability to make long-range plans and to put together adequate funding packages.
- An outside perception of data weaknesses may lead to a perception the data cannot be trusted and the resulting decisions made by the TRCC were “weak.” Any perception that the data being utilized isn’t valid or complete can erode and threaten the validity of the process. This includes labeling the data as “bad.”
  - If there is a perception that the TRCC (or its supported systems) does not present consistent and accurate data to the legislature, this would be a significant threat.
- The viability of the TRCC is directly related to the consistency of committee participation and the ability to keep participants at the table even during staff turn-over.
  - Individual agency commitment is directly related to changes in supervisory staff and/or changes in agency priority.
    - There is no legislative mandate for the TRCC data collections, reporting or agency cooperation. The group is not institutionalized and therefore, ongoing participation is at the discretion of individual agency supervisory staff.
  - Agency participation could change/wane depending on availability of funds and/or failure to fund individual participating agency projects
- Although TRCCs operate in many states, Montana has unique characteristics. When Montana TRCC has been evaluated using only federal standards or expectations in the past, this has been difficult and threatening.
- Legislatively mandated data privacy guidelines that would require higher levels of privacy/less data sharing, would adversely impact the TRCC.



- *Crash data (excluding fatalities) from Reservations/Tribal Lands is often missing. Frequent changes in Tribal Councils resulting in the need to renew and reestablish relationships and educate new members to the importance of data sharing threatens overall statewide data consistency and accuracy.*

## Broad Strategic Categories for Consideration as Identified by the SWOT Analysis

Several categories and topics were touched on and discussed during the group SWOT Analysis meeting and also during individual interviews, producing ample raw data for consideration. The following are the consistent topics repeated in all areas of the SWOT, and identified as potential areas to consider for strategic planning.

- 1) **Tribal relationships and traffic data on Reservation/Tribal lands:** Input suggests that for a variety of reasons, relationships with the Tribe are inconsistent. Additionally, several issues regarding the consistency, accuracy and access to traffic data on reservation/Tribal lands were discussed.
- 2) **Data:** There was consensus that the data being collected and used currently is “good” and certainly much improved from past years. There was also consensus that the automated systems being utilized to collect and report this data are also much improved. Given these strengths, there was still much discussion about additional data that might be collected and included, how this might be best collected and reported, and how to continually improve the linkages/interfaces of data sets and data systems to ensure the highest caliber of data possible.
- 3) **TRCC sustainability:** Specific discussion centered on both external and internal thoughts related to ensuring sustainability. In regard to external sustainability, there was discussion about whether or not the TRCC should be less “invisible” and how to become more connected, as well as discussion about the role of the Steering Committee. Additionally, funding continues to be a part of the discussion, specifically how the TRCC might take advantage of additional and/or not traditionally utilized funding to meet the group goals. In regard to internal sustainability there was discussion about the overarching mission of the TRCC, how to ensure ongoing individual agency buy-in and participation, and ensuring that members of the TRCC are fully aware of the purpose of the group and the resources available to the group (e.g. group charter, website, educational and “institutional knowledge” documents).

# APPENDIX C



## FUNDING REPORT

# Funding Report

## 2015 Traffic Records Strategic Plan Update

Prepared for:

Montana Department of Transportation,  
Traffic Records Coordinating Committee (TRCC)

*February 2016*

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# Funding Overview

## Introduction

As part of their overall update of a strategic plan, the Transportation Records Coordinating Committee (TRCC) aims to improve road safety through improved data usage through this funding report. The complexities of the funding sources and potential projects that the TRCC handles require this comprehensive review rather than a formal effort such as a traditional investment strategy.

### Crash Records Investment:

Investing in improvements for safety record data integrity, timeliness, accuracy, completeness, uniformity and integration can lead to initiatives that save lives.

This funding report focuses on the TRCC history and provides a review of past investment records, stakeholder interviews, as well as TRCC meetings and input. The TRCC intends that investment will align with the Strategy Matrix (located in the primary strategic plan update document). The Strategy Matrix was developed to provide a financial range for planning purposes, shown in the Strategy Matrix by the relative number of dollar signs (0 through \$\$\$).

For this report, TRCC fiscal years are aligned with the federal fiscal year (FY) of October 1 to September 30. Federal funds may or may not be obligated or appropriated within the actual FY intervals; the practice of carry forward funds allows for smoother flow of funds for the TRCC and their grantees.

Conservative financing, as practiced by the TRCC, allows the Committee to fund a variety of projects while consistently carrying funds forward to ensure the ability to meet future project needs.

Appendix F of the Strategic Plan provides a summary of comments concerning the TRCC application review and evaluation process. This appendix is meant to provide input for the TRCC implementation of Strategy #15, to update their evaluation review process.

## Program Funding

Historically, TRCC funding has been derived from two key federal sources: SAFETEA-LU 408 and MAP 21 Section 405c. Funds are allowed to be carried forward into future fiscal year(s) providing a significant advantage. Currently, SAFETEA-LU funds have been fully allocated. The sole funding source is MAP 21 Section 405c.

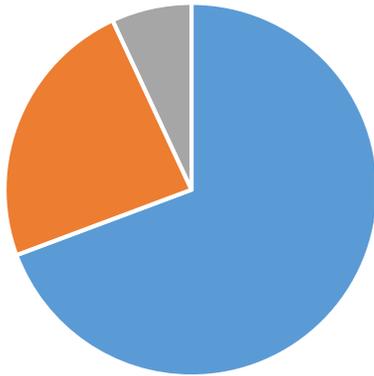
Since federal FY 2012, TRCC has invested \$1.6 million in transportation safety related programming and projects. Figure 1<sup>1</sup> depicts the TRCC expenditures from FY 2012 to FY 2015.

<sup>1</sup> Source: *Traffic Records Coordinating Committee Financial Statement, dated 10/30/2015*

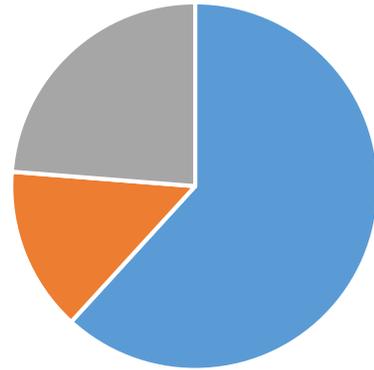


Figure 1: TRCC Expenditures, FY 2012 to FY 2015

TRCC Expenditures 2012



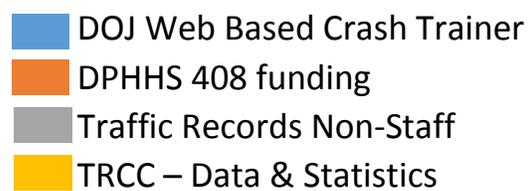
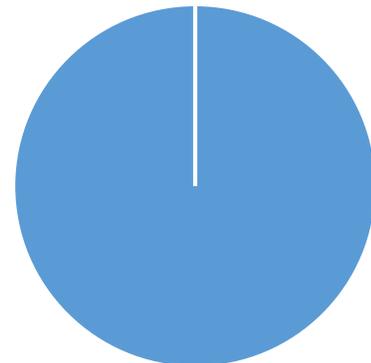
TRCC Expenditures 2013



TRCC Expenditures 2014



TRCC Expenditures 2015

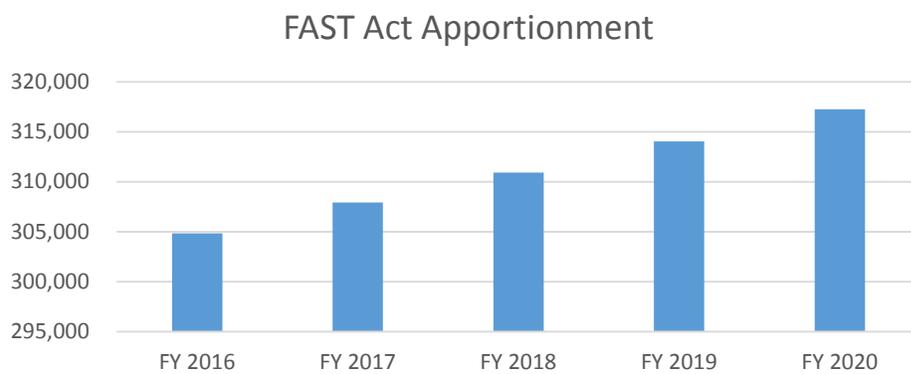




## FAST Act Apportionment

In the fall of 2015, Congress passed the FAST Act to provide transportation funding through Federal FY 2020. Section 405(c), which provides funds to the TRCC, is projected to be funded annually at just under \$305,000. Figure 2<sup>2</sup> shows the TRCC funding apportioned through the life of the FAST Act. Note that federal appropriations may shift slightly from the apportionment schedule and slight timing delays (for appropriations) are not unusual.

Figure 2: FAST Act Apportionment, FY 2016 to FY 2020



## Active TRCC Projects

Current, active projects requiring funding from FY 2015 funds include DOJ WBCR/CTS Trainer, MDT Traffic Data Management System and MDT Strategic Planning (this report). In total, TRCC has set aside \$574,475 for active projects. With all FY 2015 budgetary items including administrative expenses including salaries, benefits, conferences and travel, and Fatal Accident Reporting System (FARS), a surplus of just over \$315,000 is carried forward into FY 2016.

TRCC funds are managed by the State Highway Traffic Safety Section (SHTSS) of MDT's Rail, Transit & Planning Division. For FY 2015, TRCC had federally committed funds equating to nearly \$1.15 million (including carry over from previous fiscal years).

<sup>2</sup> Source: NHTSA-Montana Projected Funding, February 2016



## TRCC Historic Investments

Projects seeking TRCC funding must complete an application which is then reviewed by the TRCC. Projects may be funded in one or multiple federal fiscal year cycles depending on funding availability, project priority and the magnitude of the project. TRCC ensures that all planned, start-up and active projects meet at least one National Highway Traffic Safety Administration (NHTSA) performance measure. NHTSA performance measures are a guide to assist monitoring and improving the quality of data used in traffic records systems.

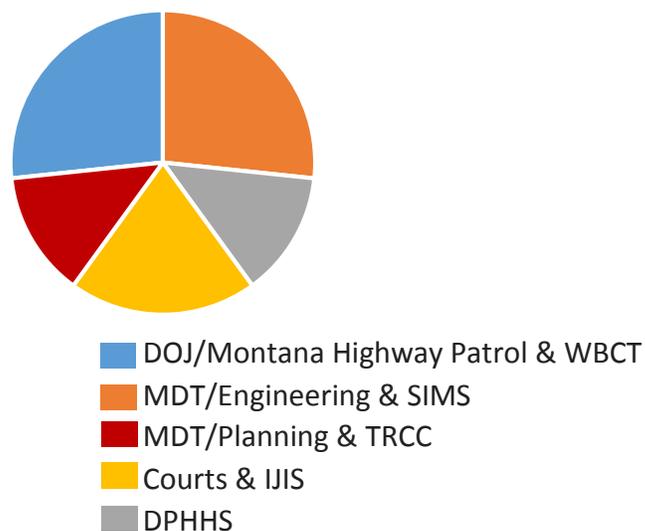
### COMPLETED PROJECTS, THROUGH FY 2015

Figure 3 shows the completed projects, by agency with the full project name listed below:

- TRSP Implementation Management and Control - MDT/SHTSS
- Web Based Crash Reporting System - DOJ/MHP
- SIMS: Safety Information Management System - MDT/Engineering
- Enhance Roadway Log with GPS-Based Location Referencing - MDT/Planning
- National Review of Best Practices Related to Safety Analysis Systems - MDT/Engineering
- Montana Safety Analysis System: Design (Phase 1) - MDT/Engineering
- Montana Safety Analysis System: System Development (Phase 2) - MDT/Engineering
- Online Prehospital Information System - DPHHS
- FullCourt - Courts
- CTS America Crash System - DOJ/MHP
- Development of E-Ticket Citation System - Courts
- Network Infrastructure Improvement Pilot Project - DOJ/ITSD
- Linkage of EMS, Crash, Hospital and Post-Hospital Data - DPHHS
- IJIS Broker - DOJ/MVD
- SmartCop E-Citation - DOJ/MHP

*Figure 3: TRCC Funded Projects Completed in FY 2012-2015*

### TRCC Funded Projects Completed in FY 2012-2015





## Success Stories

Over the years, the TRCC has funded several critical transportation safety projects in the state of Montana. Most notable are the Montana Highway Patrol (MHP) Web Based Crash Reporting System (WBCR) and the MDT Safety Information Management System (SIMS).

### *Web Based Crash Reporting System (WBCR)*

The WBCR System was initially funded in FY 2012 with training continuing through FY 2015. There was a significant surge of funding for this project in FY 2014, \$388,822, as Montana Highway Patrol (MHP) shifted the program into full implementation. TRCC funding for this program has tapered off in FY 2015 to \$75,152. At this time, funding is for the WBCR trainer. In total, TRCC has invested \$767,725 in the WBCR program.

WBCR serves as the replacement for the Montana Accident Reporting System (MARS) and allows MHP to collect uniform, complete, accurate and timely data. The implementation of this program brought MHP into compliance with the new Federal standard, model minimum uniform crash criteria (MMUCC). This provides for uniformity and consistency of data nationwide and puts Montana at the forefront of crash data collection. WBCR also enables Montana to streamline the process of entering data into a useable format in a much shorter timeframe. This means analysis can begin sooner, trends can be identified faster, allowing for more timely decisions to be made relating to traffic engineering, education and enforcement as well as local resource management.

#### WBCR: Improving Records Usage in the following NHTSA Parameters

- ✓ Accurate
- ✓ Complete
- ✓ Integrated
- ✓ Timely
- ✓ Uniform

### *Safety Information Management System (SIMS)*

Another significant accomplishment of the TRCC is funding support for MDT's SIMS project. In development for nearly a decade, the culmination of TRCC and other efforts was bringing the SIMS system online in 2012. In total, this million dollar project has partners including MDT, DOJ, MHP, Federal Highway Administration (NHTSA/FMCSA) as well as local agencies.

This project enables accurate and complete crash and traffic data to serve as the base of Montana's highway safety goals and efforts to meet Federal safety standards. Due to the size and complexity of the SIMS project, it was broken into a multi-phased approach, which was initiated in 2011. The third and final phase of the SIMS project was implemented in late 2014. The final phase linked SIMS with the Department of Justice (DOJ) reporting systems and overlap into the MARS system (the old crash data system).

#### SIMS: Improving Records Usage in the following NHTSA Parameters

- ✓ Accessible
- ✓ Accurate
- ✓ Complete
- ✓ Integrated
- ✓ Timely
- ✓ Uniform

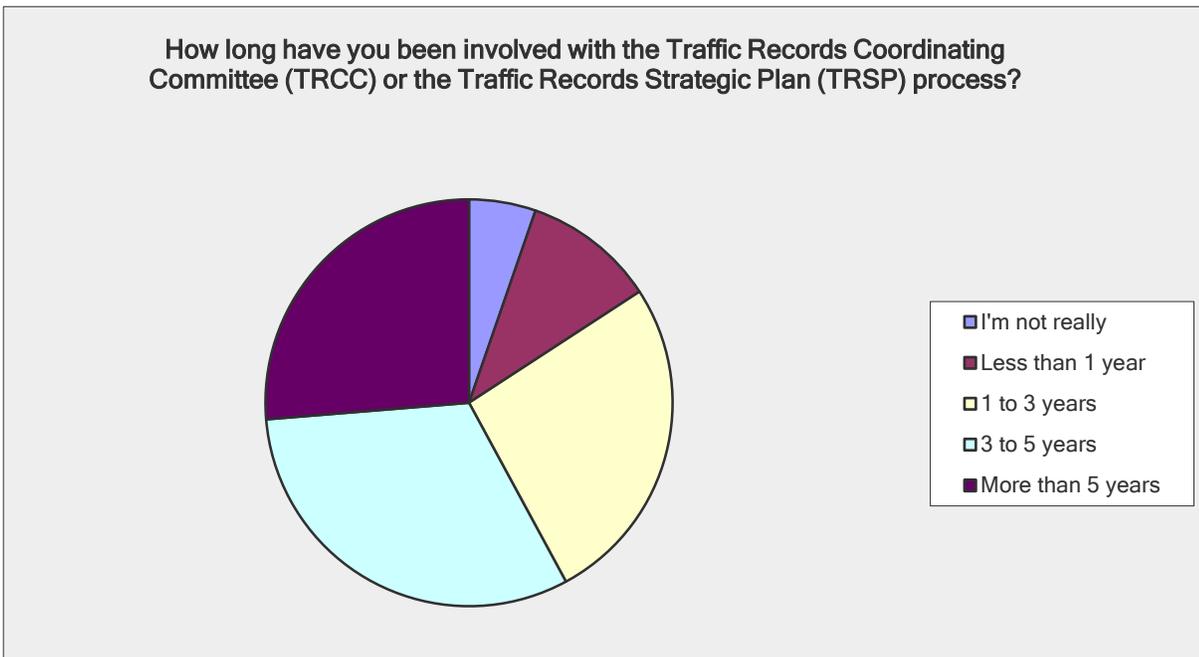
# APPENDIX D



**SURVEY MONKEY**

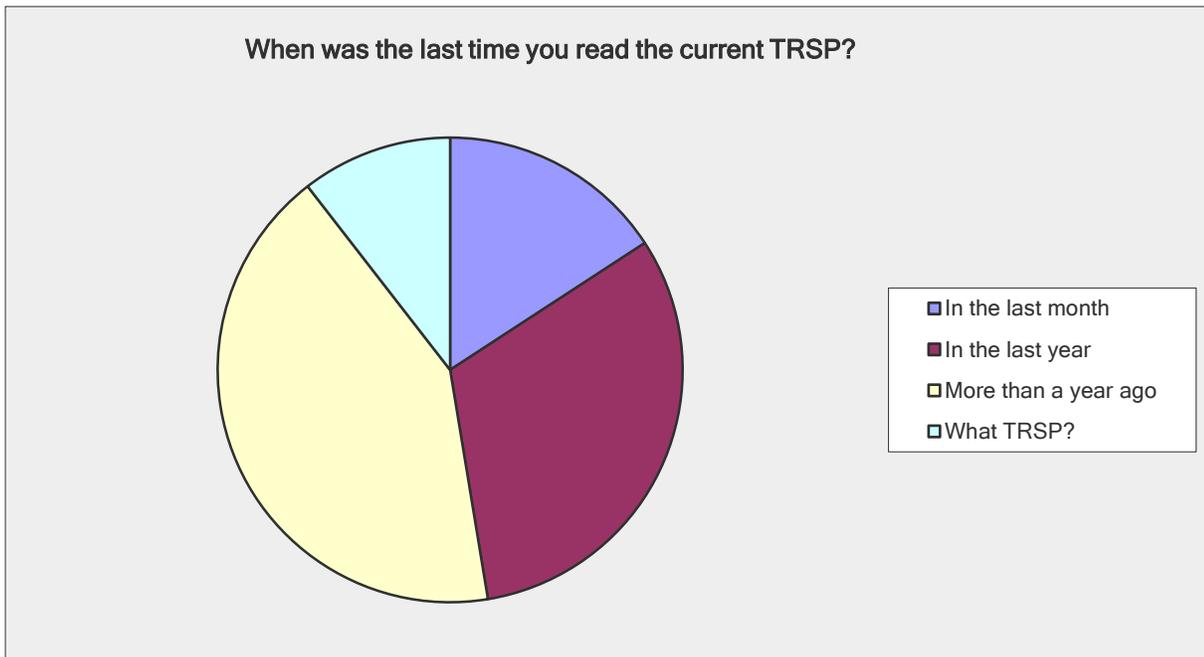
## Montana TRCC Survey

How long have you been involved with the Traffic Records Coordinating Committee (TRCC) or the Traffic Records Strategic Plan (TRSP) process?		
Answer Options	Response Percent	Response Count
I'm not really	5.3%	1
Less than 1 year	10.5%	2
1 to 3 years	26.3%	5
3 to 5 years	31.6%	6
More than 5 years	26.3%	5
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



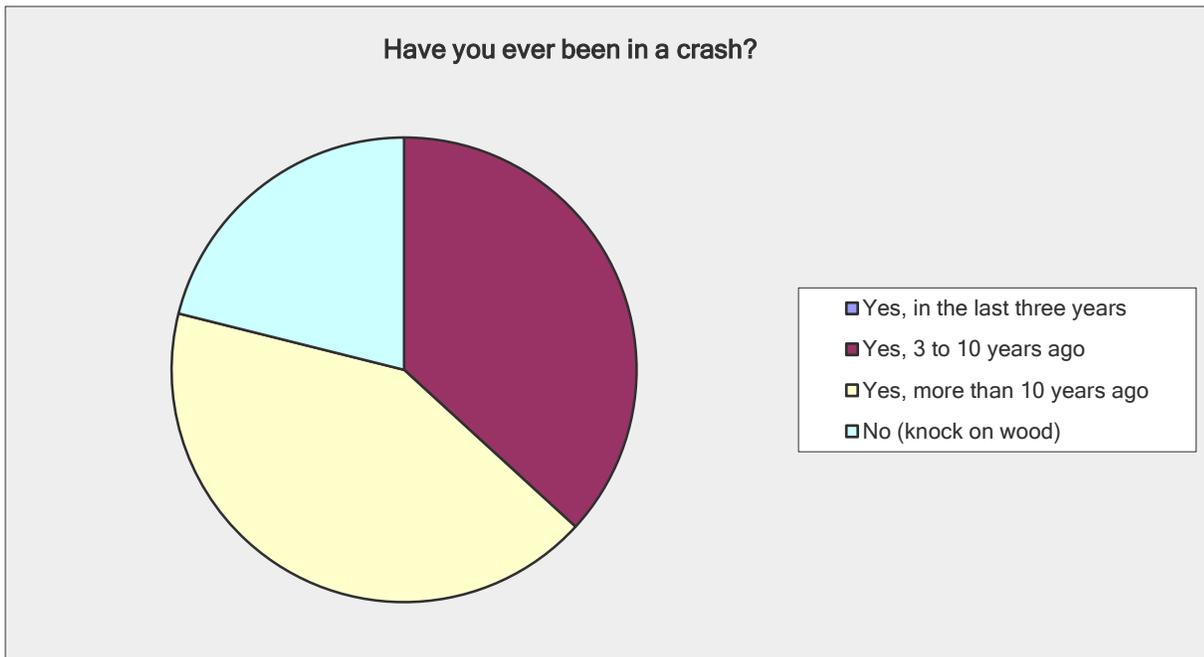
## Montana TRCC Survey

When was the last time you read the current TRSP?		
Answer Options	Response Percent	Response Count
In the last month	15.8%	3
In the last year	31.6%	6
More than a year ago	42.1%	8
What TRSP?	10.5%	2
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



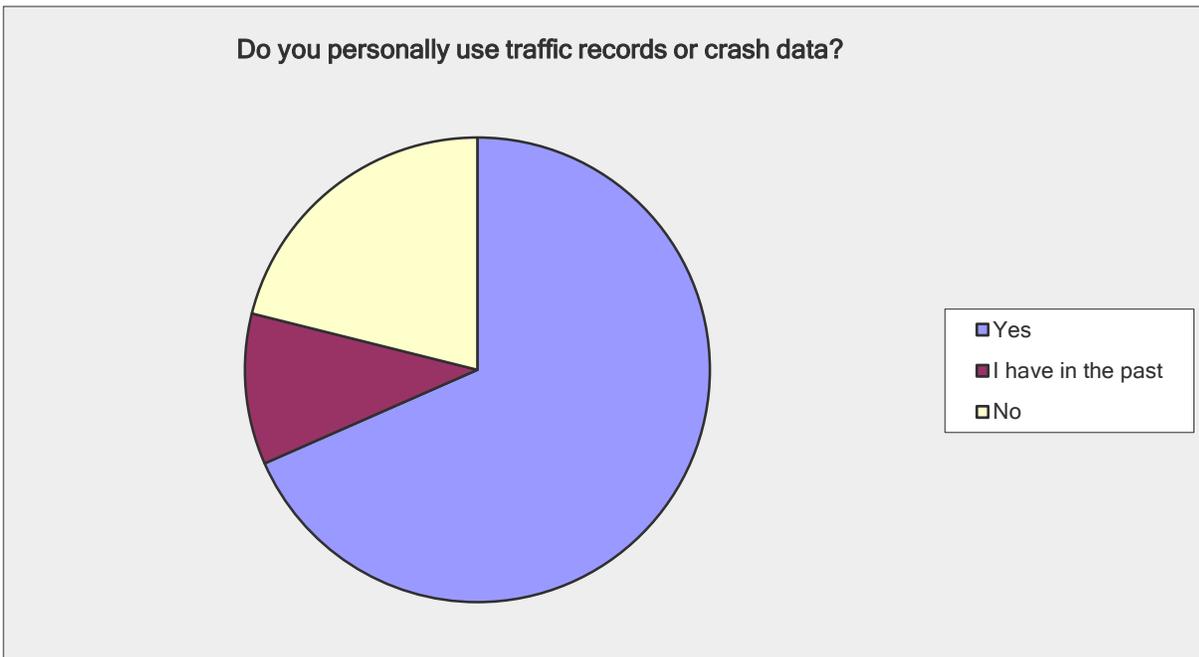
## Montana TRCC Survey

Have you ever been in a crash?		
Answer Options	Response Percent	Response Count
Yes, in the last three years	0.0%	0
Yes, 3 to 10 years ago	36.8%	7
Yes, more than 10 years ago	42.1%	8
No (knock on wood)	21.1%	4
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



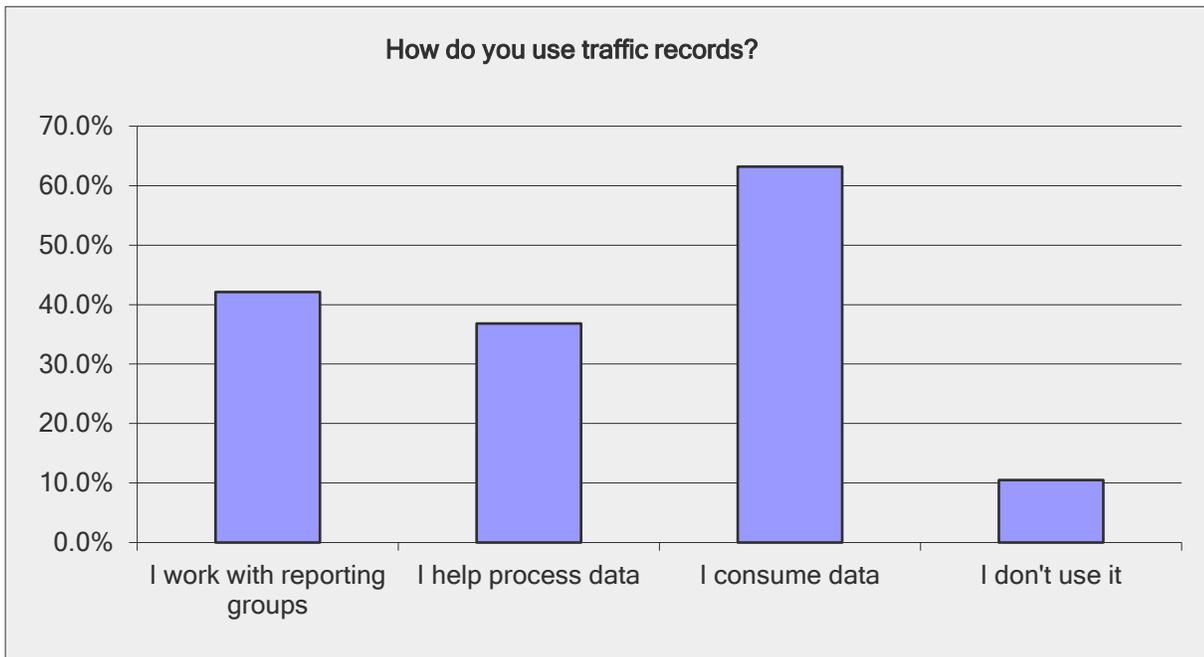
## Montana TRCC Survey

Do you personally use traffic records or crash data?		
Answer Options	Response Percent	Response Count
Yes	68.4%	13
I have in the past	10.5%	2
No	21.1%	4
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



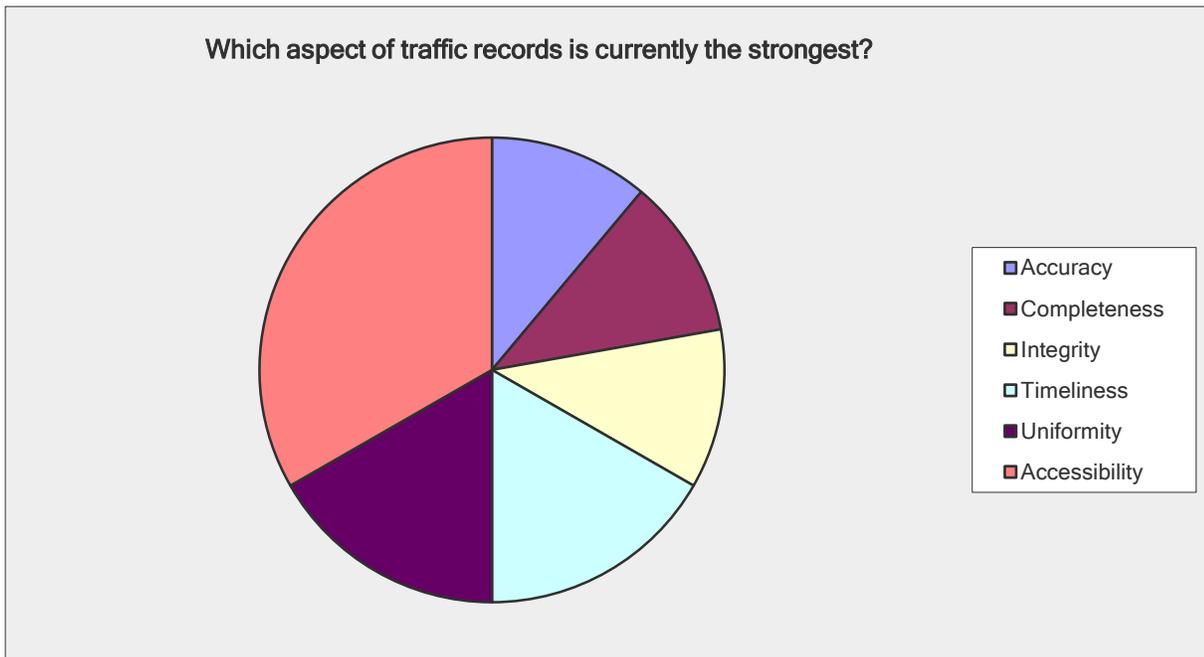
## Montana TRCC Survey

How do you use traffic records?		
Answer Options	Response Percent	Response Count
I work with reporting groups	42.1%	8
I help process data	36.8%	7
I consume data	63.2%	12
I don't use it	10.5%	2
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



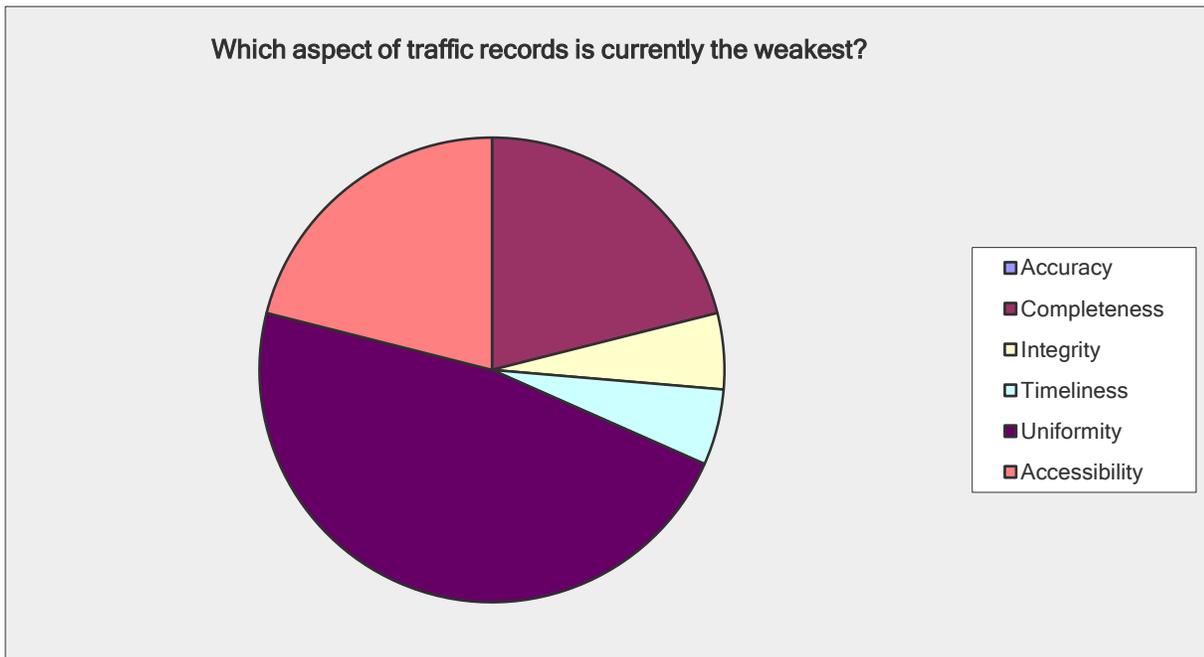
## Montana TRCC Survey

Which aspect of traffic records is currently the strongest?		
Answer Options	Response Percent	Response Count
Accuracy	11.1%	2
Completeness	11.1%	2
Integrity	11.1%	2
Timeliness	16.7%	3
Uniformity	16.7%	3
Accessibility	33.3%	6
<i>answered question</i>		<b>18</b>
<i>skipped question</i>		<b>1</b>



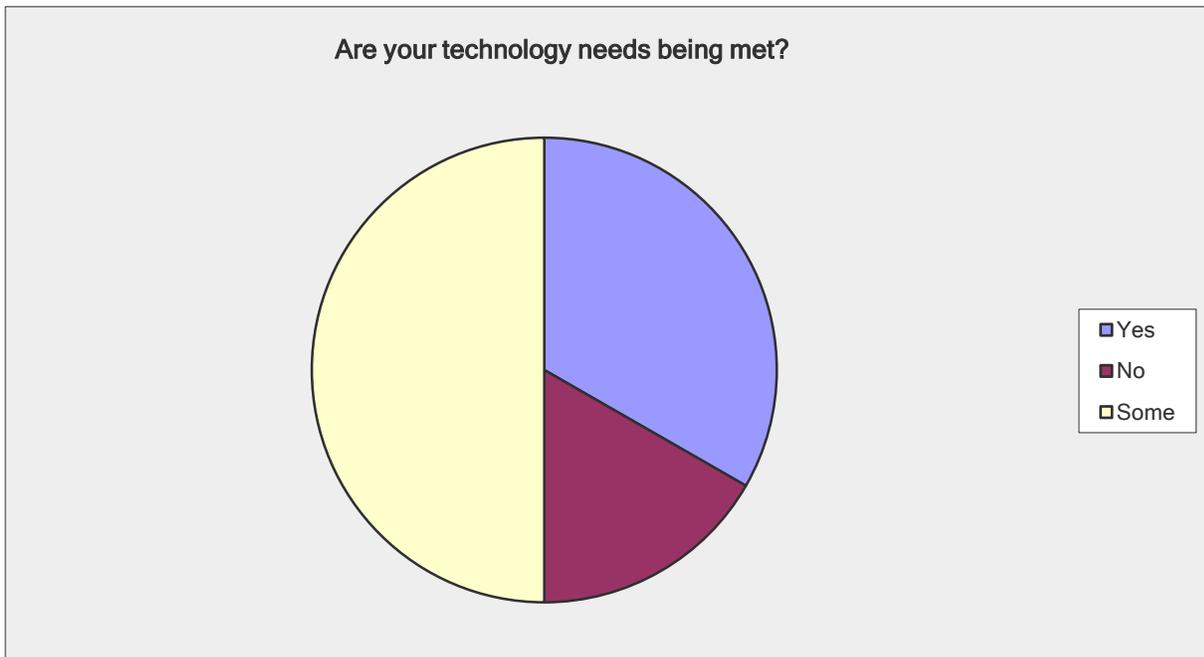
## Montana TRCC Survey

Which aspect of traffic records is currently the weakest?		
Answer Options	Response Percent	Response Count
Accuracy	0.0%	0
Completeness	21.1%	4
Integrity	5.3%	1
Timeliness	5.3%	1
Uniformity	47.4%	9
Accessibility	21.1%	4
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



## Montana TRCC Survey

Are your technology needs being met?		
Answer Options	Response Percent	Response Count
Yes	33.3%	6
No	16.7%	3
Some	50.0%	9
<i>answered question</i>		<b>18</b>
<i>skipped question</i>		<b>1</b>



## Montana TRCC Survey

What traffic records technology can be improved?	
Answer Options	Response Count
	12
<i>answered question</i>	12
<i>skipped question</i>	7

Answers
Interfaces to local law enforcement data.
All of them.
Consistent, uniform data gather queries.
The infield reporting from agencies... it should all be electronic.
The ability to link data with other systems.
Web based crash reporting in large cities would be very helpful.
Coordination of information for uniformity and agency coordination of information and projects.
Getting all agencies on same reporting system.
Integration with court and hospital emission records.
User friendly access - with analysis tied to reports.
Coordination among agencies, programs, initiatives.
Electronic reporting. I'm not that familiar with the technology so can't answer this question very well.

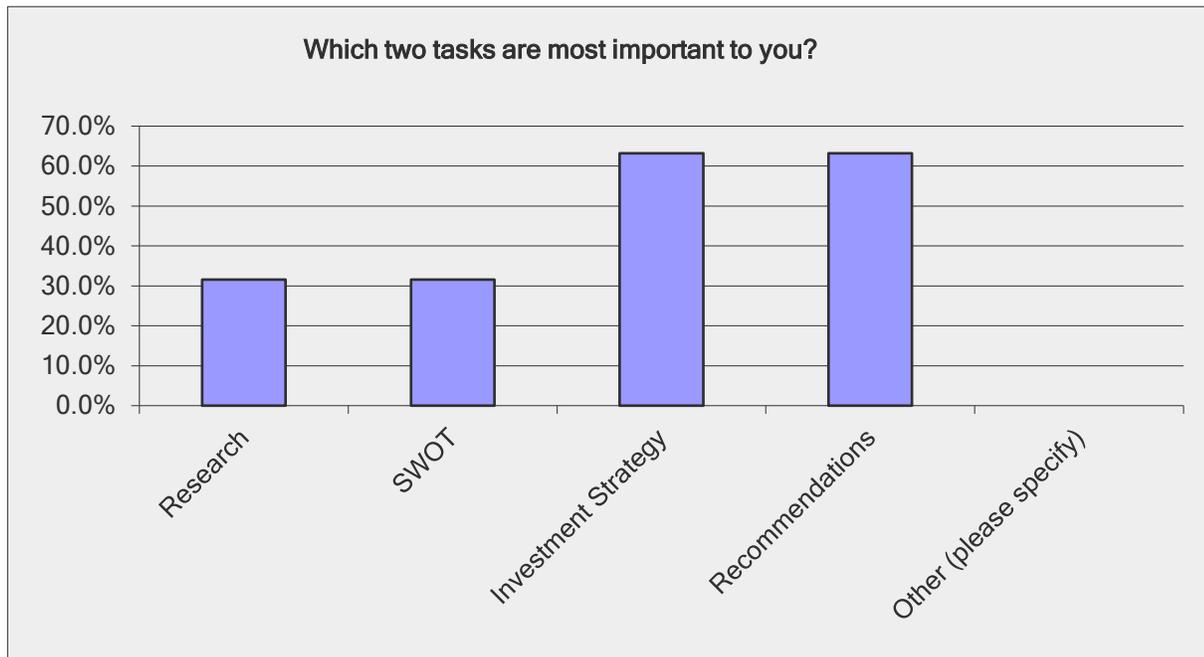
## Montana TRCC Survey

Which aspect of traffic records can technology improve?	
Answer Options	Response Count
	12
<i>answered question</i>	12
<i>skipped question</i>	7

Answers
Completeness.
Uniformity.
Timeliness in fulfilling data requests.
(Same) The infield reporting from agencies...it should all be electronic.
Data linking.
Accuracy, integrity, uniformity, completeness, accessibility.
Most of it.
(Same) Getting all agencies on same reporting system.
Accessibility.
I think technology is outpacing what we are currently using.
The struggle is keeping up with technology and putting it to use.
Timeliness, uniformity, completeness, availability and accuracy.
Communications among different traffic records management systems, communications across state lines (nationwide) and access to those records.

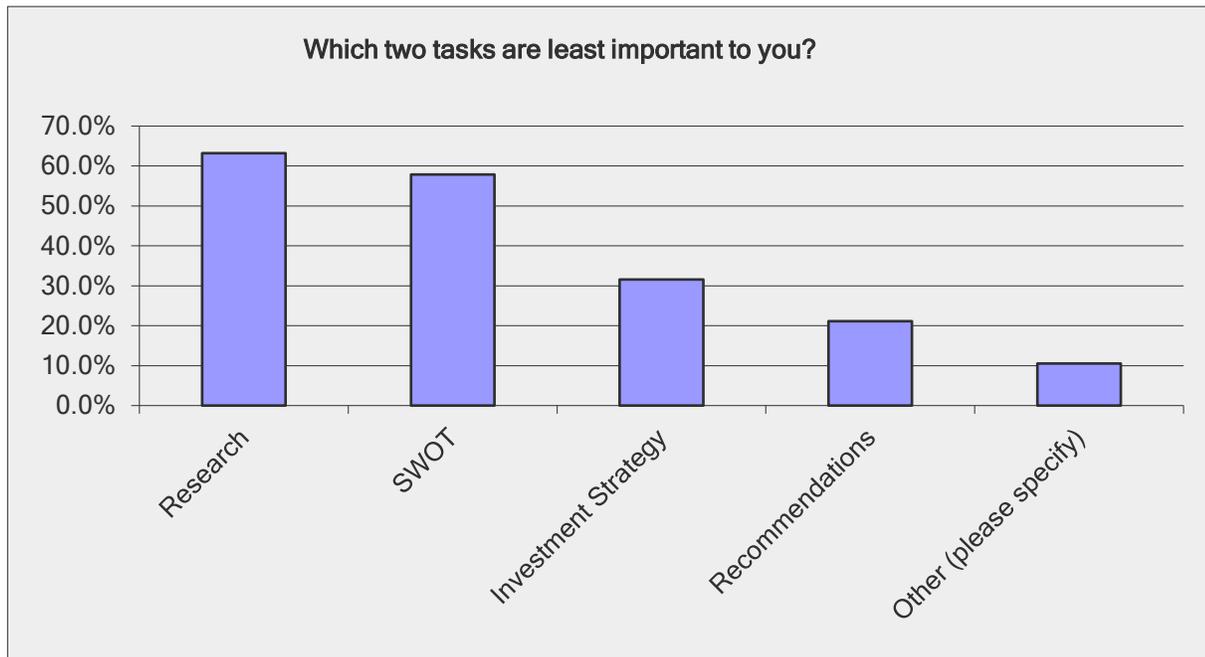
## Montana TRCC Survey

Which two tasks are most important to you?		
Answer Options	Response Percent	Response Count
Research	31.6%	6
SWOT	31.6%	6
Investment Strategy	63.2%	12
Recommendations	63.2%	12
Other (please specify)	0.0%	0
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



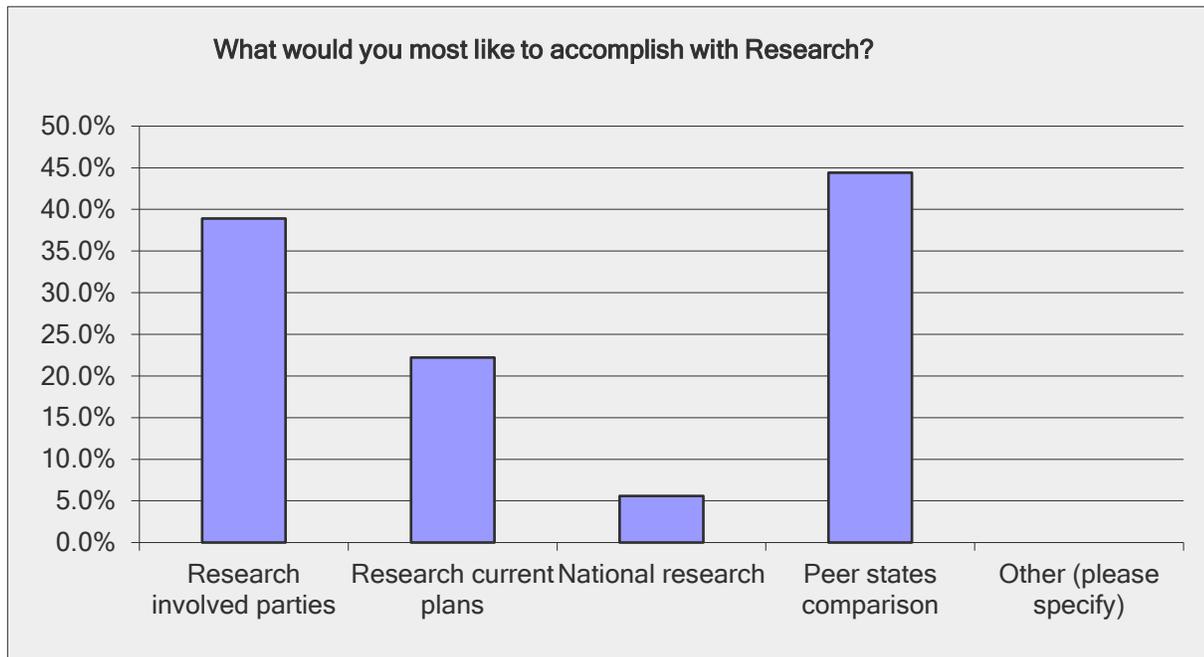
## Montana TRCC Survey

Which two tasks are least important to you?		
Answer Options	Response Percent	Response Count
Research	63.2%	12
SWOT	57.9%	11
Investment Strategy	31.6%	6
Recommendations	21.1%	4
Other (please specify)	10.5%	2
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



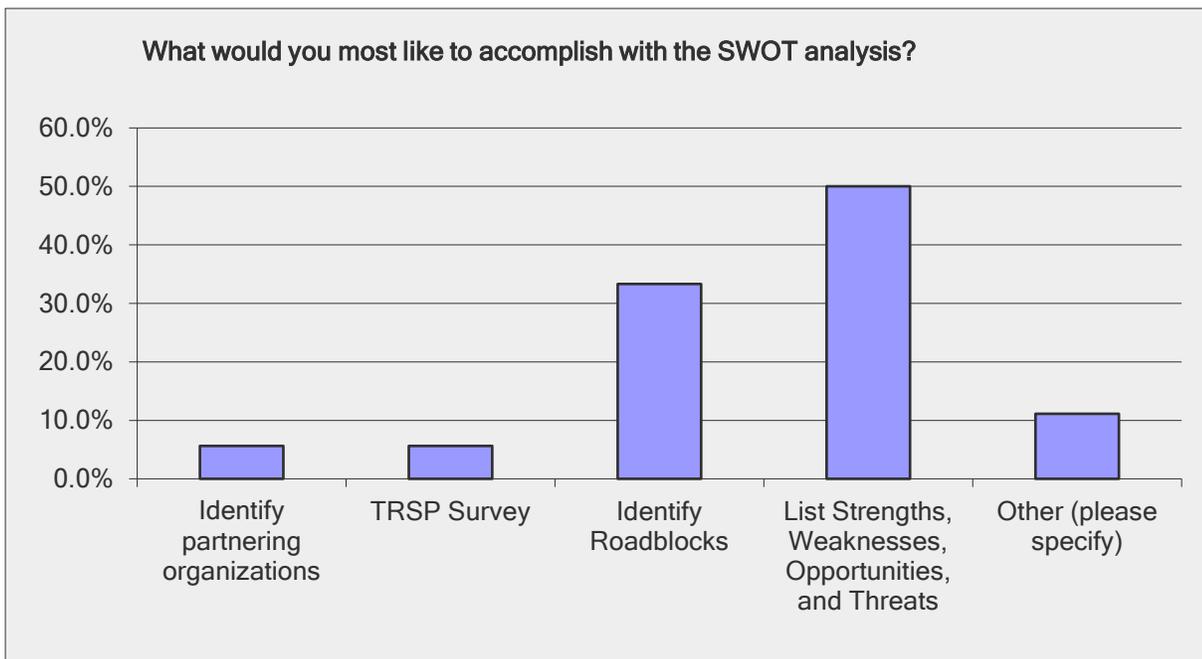
## Montana TRCC Survey

What would you most like to accomplish with Research?		
Answer Options	Response Percent	Response Count
Research involved parties	38.9%	7
Research current plans	22.2%	4
National research	5.6%	1
Peer states comparison	44.4%	8
Other (please specify)	0.0%	0
<i>answered question</i>		<b>18</b>
<i>skipped question</i>		<b>1</b>



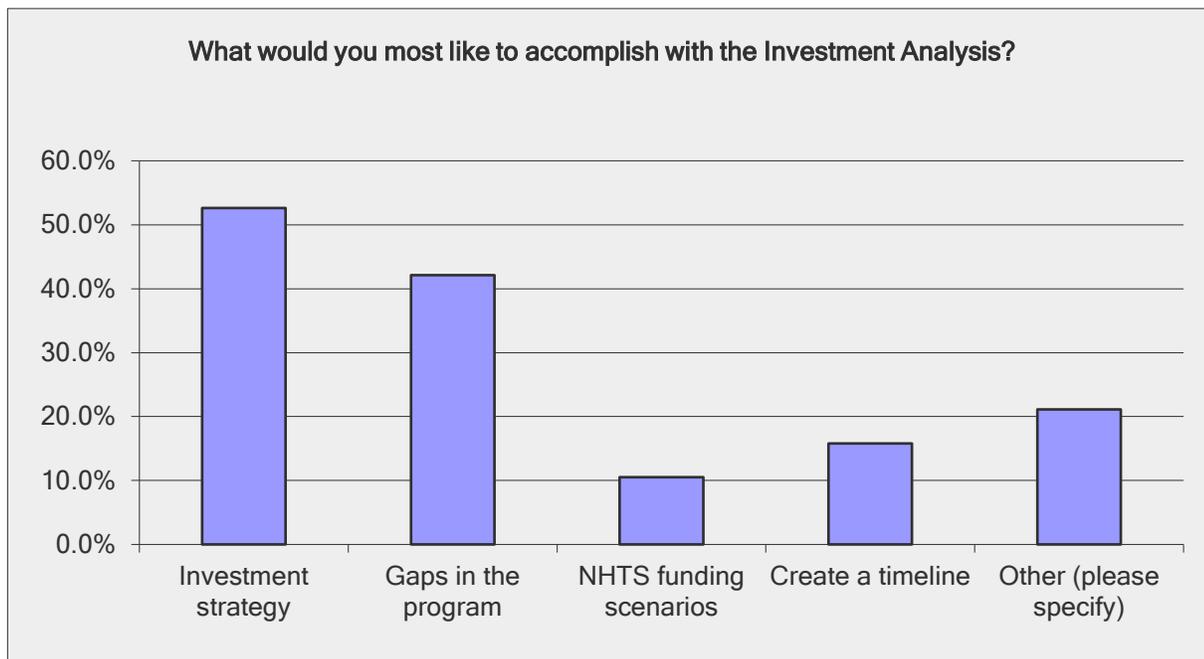
## Montana TRCC Survey

What would you most like to accomplish with the SWOT analysis?		
Answer Options	Response Percent	Response Count
Identify partnering organizations	5.6%	1
TRSP Survey	5.6%	1
Identify Roadblocks	33.3%	6
List Strengths, Weaknesses, Opportunities, and Threats	50.0%	9
Other (please specify)	11.1%	2
<i>answered question</i>		<b>18</b>
<i>skipped question</i>		<b>1</b>



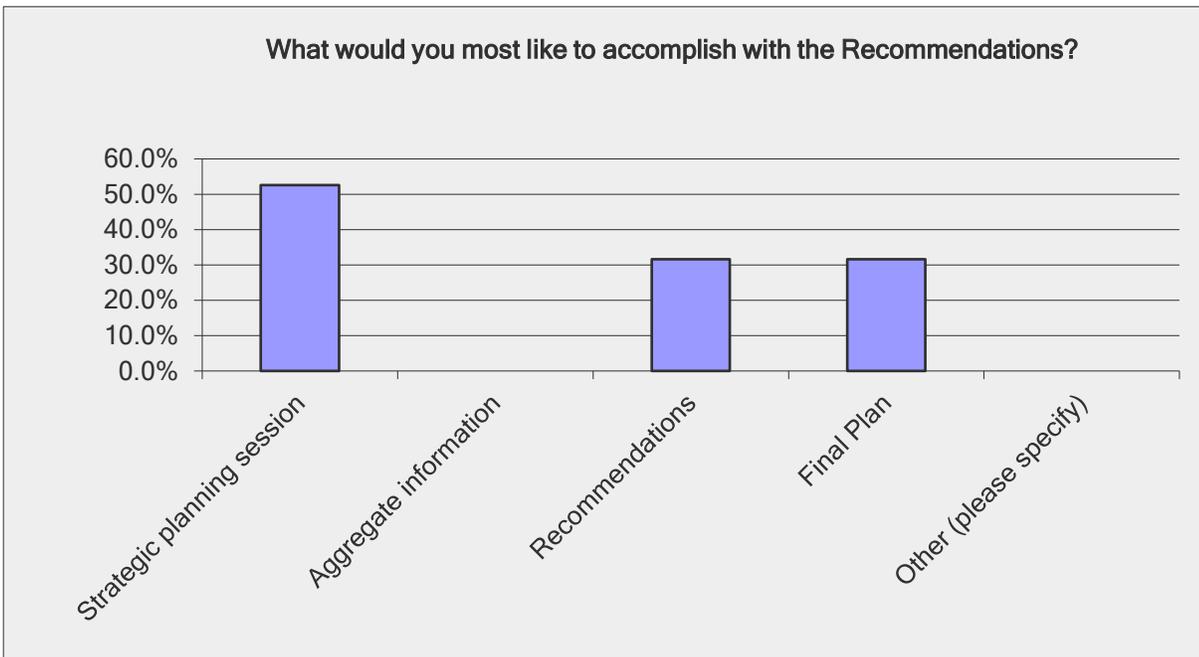
## Montana TRCC Survey

What would you most like to accomplish with the Investment Analysis?		
Answer Options	Response Percent	Response Count
Investment strategy	52.6%	10
Gaps in the program	42.1%	8
NHTS funding scenarios	10.5%	2
Create a timeline	15.8%	3
Other (please specify)	21.1%	4
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



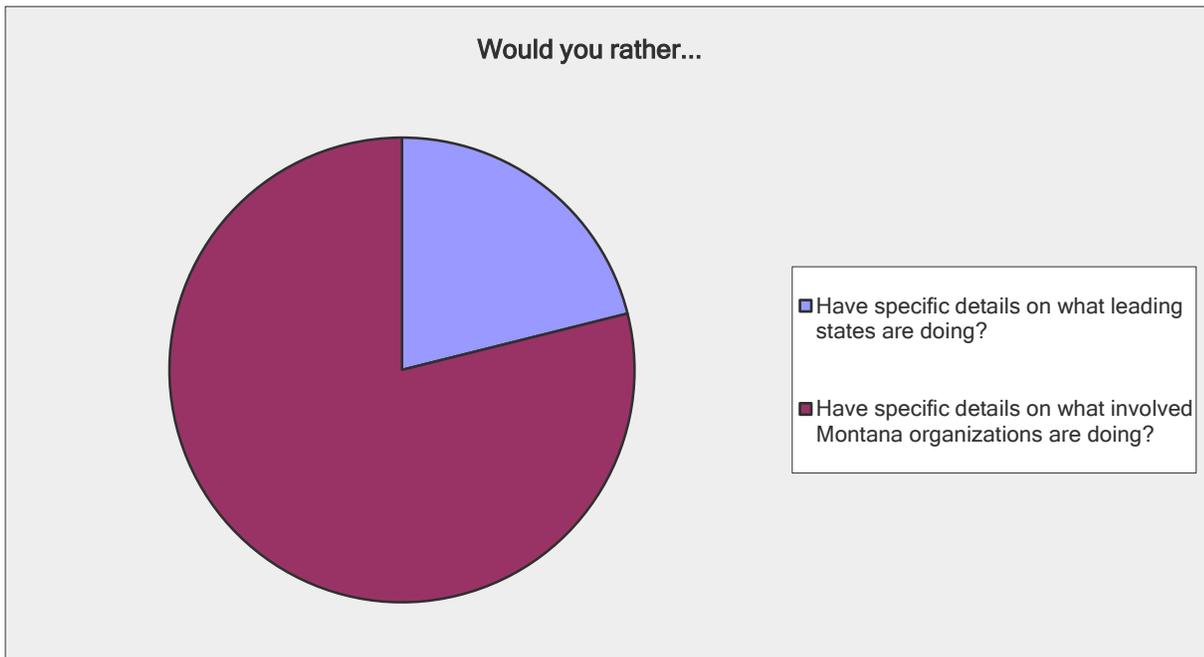
## Montana TRCC Survey

What would you most like to accomplish with the Recommendations?		
Answer Options	Response Percent	Response Count
Strategic planning session	52.6%	10
Aggregate information Recommendations	0.0%	0
Final Plan	31.6%	6
Other (please specify)	0.0%	0
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



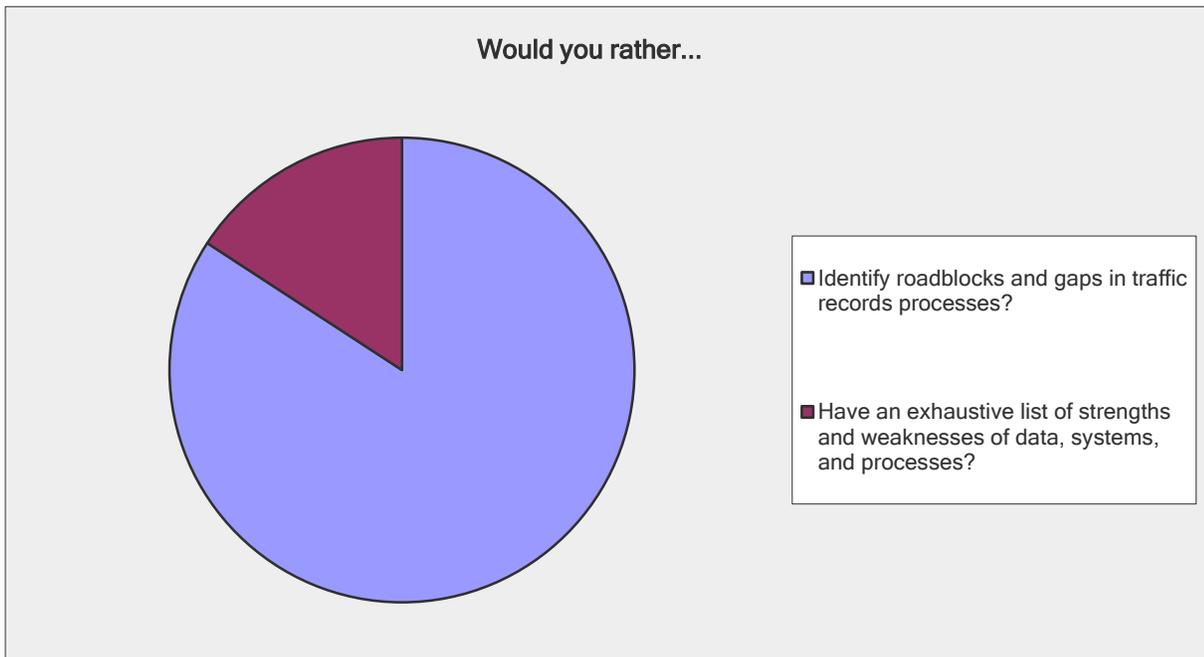
## Montana TRCC Survey

Would you rather...		
Answer Options	Response Percent	Response Count
Have specific details on what leading states are doing?	21.1%	4
Have specific details on what involved Montana	78.9%	15
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



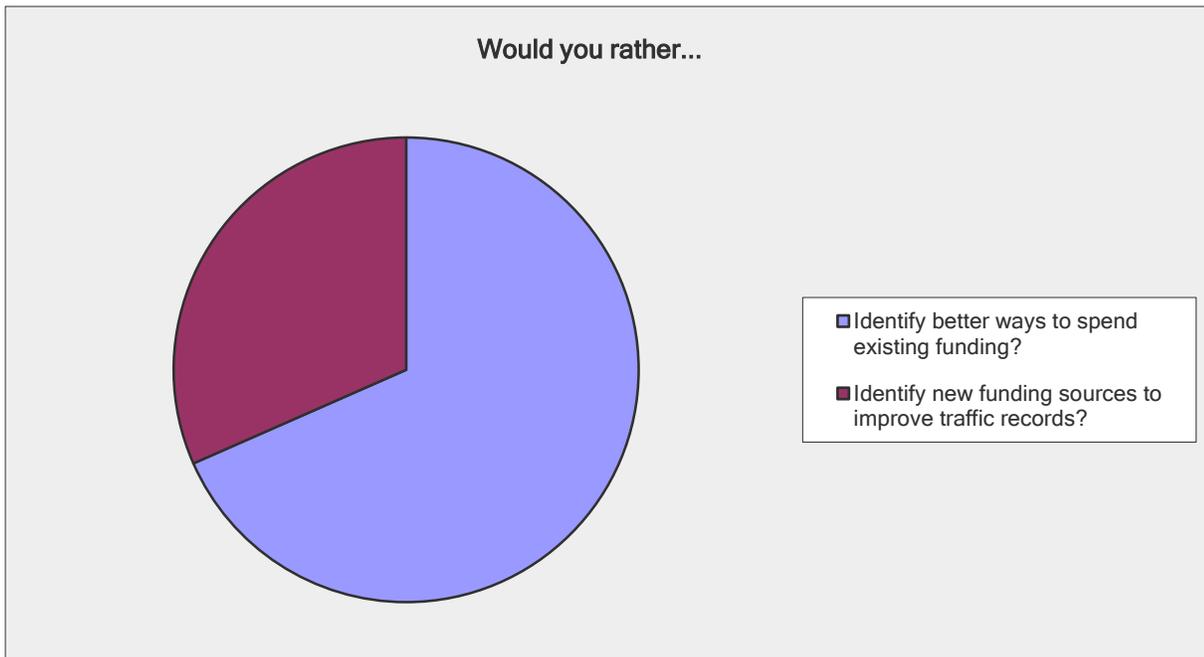
## Montana TRCC Survey

Would you rather...		
Answer Options	Response Percent	Response Count
Identify roadblocks and gaps in traffic records	84.2%	16
Have an exhaustive list of strengths and weaknesses of	15.8%	3
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



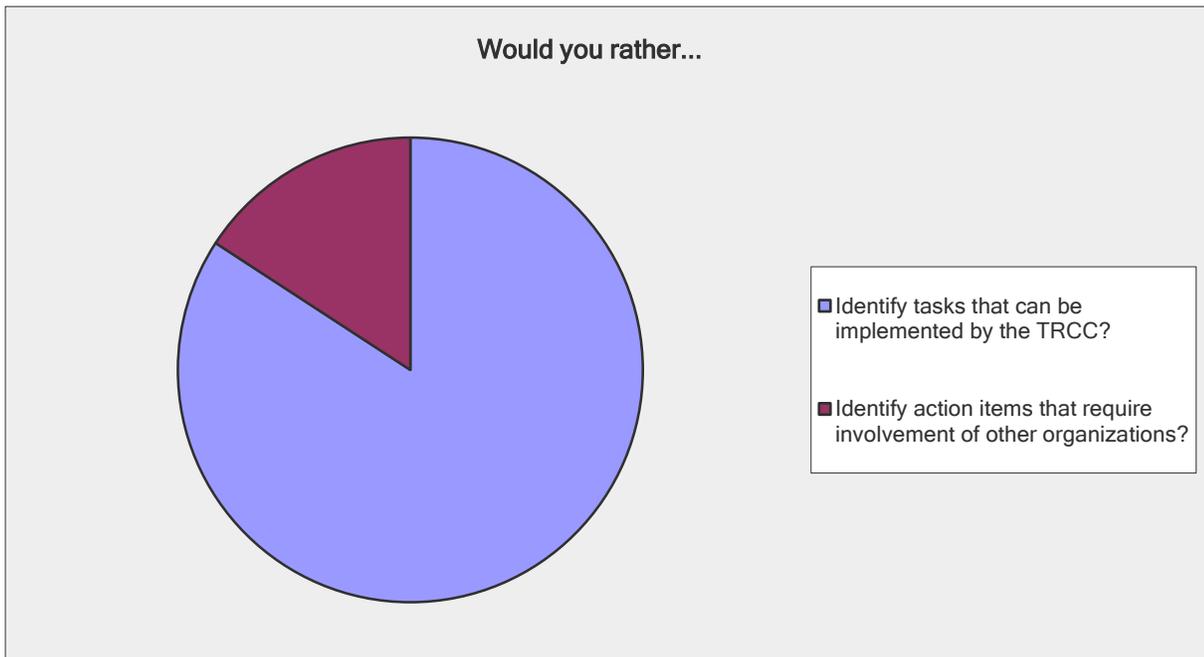
## Montana TRCC Survey

Would you rather...		
Answer Options	Response Percent	Response Count
Identify better ways to spend existing funding?	68.4%	13
Identify new funding sources to improve traffic records?	31.6%	6
	<i>answered question</i>	<b>19</b>
	<i>skipped question</i>	<b>0</b>



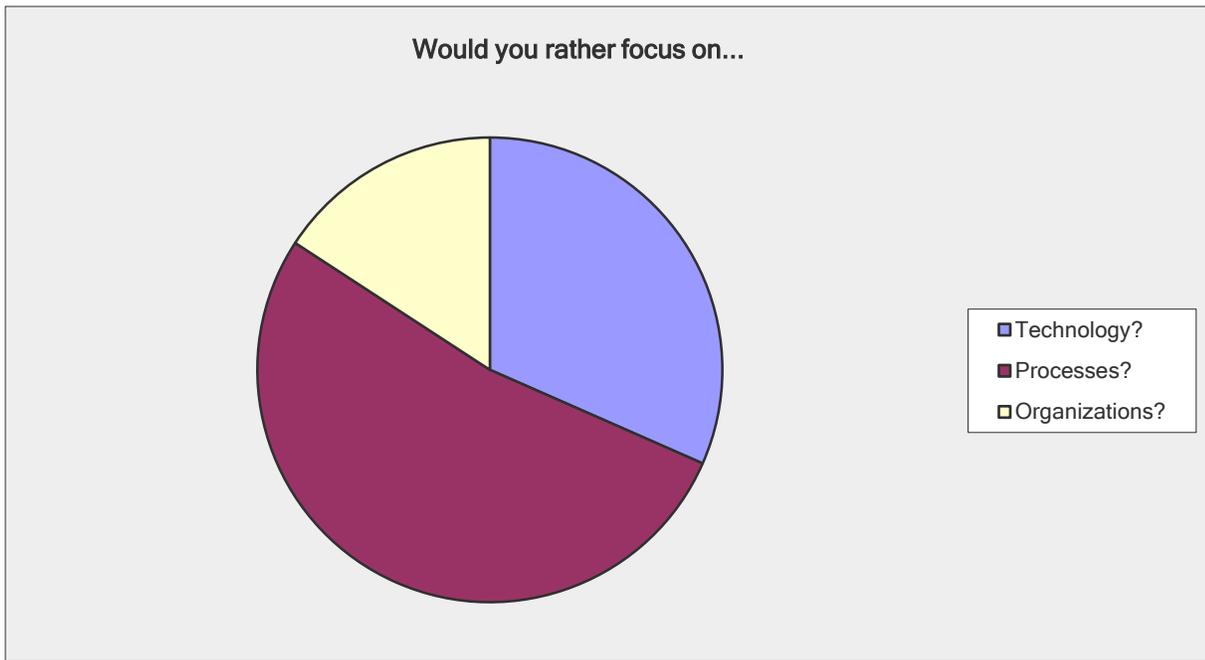
## Montana TRCC Survey

Would you rather...		
Answer Options	Response Percent	Response Count
Identify tasks that can be implemented by the TRCC?	84.2%	16
Identify action items that require involvement of other	15.8%	3
	<i>answered question</i>	<b>19</b>
	<i>skipped question</i>	<b>0</b>



## Montana TRCC Survey

Would you rather focus on...		
Answer Options	Response Percent	Response Count
Technology?	31.6%	6
Processes?	52.6%	10
Organizations?	15.8%	3
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



## Montana TRCC Survey

How has the TRCC invested in the past?	
Answer Options	Response Count
	11
<i>answered question</i>	11
<i>skipped question</i>	8

Answer
Unrelated projects.
MDT managed committee.
Support for enhancement of databases.
First come first serve.
Technology.
No comment.
I'm new to the TRCC.
SIMS -- smart cop -- technology.
From my experience the TRCC has filled gaps in systems to keep them going or upgrade, and made several strategic investments, i.e. SIMS.
FIFO.
It wasn't a strategic approach. Project proposals were submitted by TRCC members, discussed, ranked and voted upon.

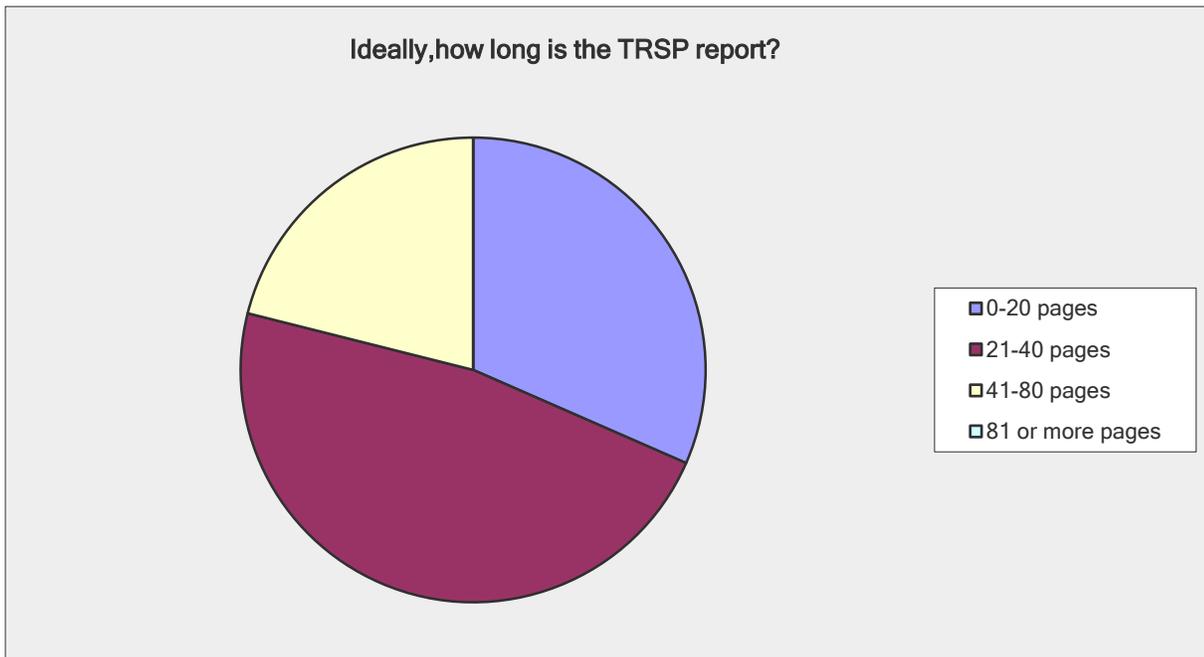
## Montana TRCC Survey

How does the TRCC want to invest in the future?	
Answer Options	Response Count
	11
<i>answered question</i>	11
<i>skipped question</i>	8

Answer
Focus on data collection with locals and tribes.
Multi agency participation with officers & voting authority.
Policy development through data linking.
Strategic investment focusing on 5-10 year plan.
I hope with technology to solve roadblocks.
Not sure.
I'm new to the TRCC.
Integration of various data sets.
Have vision on a longer range plan of investments in systems and processes that will make data walking between systems.
Best fit for mission of TRSP.
Don't know.

## Montana TRCC Survey

Ideally,how long is the TRSP report?		
Answer Options	Response Percent	Response Count
0-20 pages	31.6%	6
21-40 pages	47.4%	9
41-80 pages	21.1%	4
81 or more pages	0.0%	0
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>0</b>



# APPENDIX E



## MEETING MINUTES

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# Meeting Minutes - KLJ/Traf Records Strat. Plan Financials

Date: 8/27/2015

Time: 12:30PM

Facilitator: Kathy Harris

Attending:

CC Minutes to: Mark Keefe, Thomas McMurtry, Becky Bey and Molly Herrington

Name	Company/ Organization	Phone Number	E-Mail
Kathy Harris	KLJ	406-441-5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>
Molly Herrington	KLJ	701-355-8717	<a href="mailto:Molly.herrington@kljeng.com">Molly.herrington@kljeng.com</a>
Bill Tuck	MDT	406-444-6114	<a href="mailto:wtuck@mt.gov">wtuck@mt.gov</a>
Mark Keefe	MDT	406-444-3430	<a href="mailto:mkeefe@mt.gov">mkeefe@mt.gov</a>

## Agenda Topics

A meeting was held on 8/27/15 at MDT Planning to discuss TRCC budget and financials, as part of the Update of Strategic Plan.

Bill and Mark provided an oversight of the funding stats. The following comments were included in discussions:

1. TRCC is funded via formula funding through NHTSA.
2. TRCC operates with the federal fiscal year (FY), with closure on September 30.
3. Past Strategic Plan (TRSP) provided ability for many projects to be identified, many were concepts that are not likely feasible and tied up funding commitments for years. New Plan should reduce chance of carrying projects forward for multiple years that are not well-screened and feasible.
4. Past SP did not have specific funding selection criteria, but relied on NHTSA performance measures.
5. Before 2008, safety data was collected in MARS format. This has been replaced (nationally) with MMUCC (model minimum uniform crash criteria). MHP has adopted Smart Cop system but local entities are slow to follow.
6. TDMS-Traffic Data Management System managed by Becky Duke at MDT Planning provides traffic data. TDMS is starting to link directly in to SIMS. Also working to include Bridge and Pavement Management systems into SIMS.
7. DOJ is updating the court reporting systems into a centralized system to capture 90 courts.

- END -

## Follow Up Items

- Mark will provide KLJ with the NHTSA performance measures.
- Mark will provide KLJ with the recent NHTSA application for FY 2016 funding.

NATIONAL PERSPECTIVE  
REGIONAL EXPERTISE  
TRUSTED ADVISOR

## Meeting Minutes - KLJ/TRSPU Overview

Date: 8/27/2015

Facilitator: Kathy Harris

Time: 4:10PM

CC Minutes to: Mark Keeffe

Attending:

Name	Company/ Organization	Phone Number	E-Mail
Kathy Harris	KLJ	406-441-5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>
Molly Herrington	KLJ	701-355-8717	<a href="mailto:Molly.herrington@kljeng.com">Molly.herrington@kljeng.com</a>
Thomas McMurtry	KLJ	801-897-7650	<a href="mailto:Thomas.mcmurtry@kljeng.com">Thomas.mcmurtry@kljeng.com</a>
Dwane Kailey	MDT	406-444-6414	<a href="mailto:dkailey@mt.gov">dkailey@mt.gov</a>

### Agenda Topics

A meeting was held on 8/27/15 at MDT Offices to discuss Steering Committee oversight of the TRCC & Update of Strategic Plan.

Dwane's Comments:

1. SIMS has great benefit(s) in meeting Vision Zero.
2. Data integration has made strong progress. Still need adjudication integration (records).
3. Noted that (driver) behavior is large issue and desire to link data for effecting behavior issues (education, repeat offenders, etc.)
4. EMS response time was discussed.
5. Potential for education, possibly into schools/colleges for peer group.
6. Currently, not involved with TRCC or aware of strategic plan update.

- END -

## Meeting Minutes - KLJ/TRSPU- Overview

**Date:** 8/28/2015

**Facilitator:** Kathy Harris

**Time:** 8:15AM

**CC Minutes to:** Mark Keeffe and Becky Bey

**Attending:**

Name	Company/ Organization	Phone Number	E-Mail
Kathy Harris	KLJ	406-441-5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>
Molly Herrington	KLJ	701-355-8717	<a href="mailto:Molly.herrington@kljeng.com">Molly.herrington@kljeng.com</a>
Thomas McMurtry	KLJ	801-897-7650	<a href="mailto:Thomas.mcmurtry@kljeng.com">Thomas.mcmurtry@kljeng.com</a>
Chris Dorrington	MDT-Data & Statistics Bureau	406-444-7239	<a href="mailto:cdorrington@mt.gov">cdorrington@mt.gov</a>
Mark Keeffe	MDT	406-444-3430	<a href="mailto:mkeeffe@mt.gov">mkeeffe@mt.gov</a>

### Agenda Topics

A meeting was held on 8/28/15 at MDT Planning to discuss TRSP and MDT Multimodal Bureau, as part of the Update of Strategic Plan.

Chris's comments:

1. Need to seek out other funds & consider TRCC as leverage for other funding.
2. TRCC has excellent potential but funding is limited (and declining in future). Good multi-agency collaboration from TRCC.
3. Need data-driven decision making process.
4. Integration of data is needed.
5. Traffic Records priority should be any piece of info that can positively impact strategy.
6. Funding notes (TRCC selection of projects to fund):
  - a. TRCC should not be considered a likely pool for funding-needs to have thoughtful use (of funds) with long term collaboration and maintenance identified in application process.
  - b. TRCC should not be regular funding source for other projects.
  - c. Consider 25 % bank and 75% for expenditures.
  - d. Need Metric (performance measure) for selecting priorities (for TRCC funding).
  - e. Include discussion on exhausting all other funding sources
  - f. Leverage TRCC funding (for other areas) consider a match or demo-funding for highway priorities.
  - g. Define layer (outer/inner) gears of Traffic Rewards
  - h. Define value of outcome
7. MIRE requires so much data-that it is limiting (intimidating) to users in the field who need to provide data.

## Meeting Minutes - KLJ/TRSPU Overview

**Date:** 8/28/2015

**Facilitator:** Kathy Harris

**Time:** 11:30AM

**CC Minutes to:** Mark Keeffe

**Attending:**

Name	Company/ Organization	Phone Number	E-Mail
Kathy Harris	KLJ	406-441-5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>
Thomas McMurtry	KLJ	801-897-7650	<a href="mailto:Thomas.mcmurtry@kljeng.com">Thomas.mcmurtry@kljeng.com</a>
Roy Peterson	MDT	406-444-9252	<a href="mailto:roypeterson@mt.gov">roypeterson@mt.gov</a>

### Agenda Topics

A meeting was held on 8/28/15 at MDT Offices to discuss TRSP and MDT Traffic Bureau, as part of the Update of Strategic Plan.

Roy's comments:

1. Roy provided a copy of his 8/5/15 memo on HSIP.
2. Roy noted that the data (SIMS) is catching the "incident" and will potentially tie into the infrastructure data also (signing, pavement, road characteristics, etc.)
  - a. Signing inventories are currently very project-specific. No overarching signing database.
  - b. No speed zone database (knowledge resides with Doug Bailey)
3. When MUTCD upgraded retro-reflectivity requirements, MDT changed to update signing on maintenance/construction projects higher than a chip/seal.
4. MDT Maintenance has responsibility to check retro-reflectivity and has purchased equipment to do so. Possible competing priorities for maintenance staff time.
5. TRSPU could possibly help his Bureau by:
  - a. Overlap physical (roadway) requirements onto SIMS
  - b. Possible signal inventory/timing. Roy noted that MDT is currently upgrading controllers and going toward central system software.
- c. Link to speed limits/zone via GIS. Noted variation between statutory or special speed zones.

- END -

### Follow Up Items

- Follow up with Matt Strizich on Pavement Management System/inventory or Mary Gayle Padmos.
- Follow up with Doug McBroom or John Schwartz on MMS, Maintenance Management System.

## Meeting Minutes - KLJ/TRSPU SIMS Overview

**Date:** 8/28/2015

**Facilitator:** Kathy Harris

**Time:** 2:30PM

**CC Minutes to:** Mark Keeffe

**Attending:**

Name	Company/ Organization	Phone Number	E-Mail
Kathy Harris	KLJ	406-441-5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>
Molly Herrington	KLJ	701-355-8717	<a href="mailto:Molly.herrington@kljeng.com">Molly.herrington@kljeng.com</a>
Thomas McMurtry	KLJ	801-897-7650	<a href="mailto:Thomas.mcmurtry@kljeng.com">Thomas.mcmurtry@kljeng.com</a>
Kraig McLeod	MDT	406-444-6256	<a href="mailto:krmcleod@mt.gov">krmcleod@mt.gov</a>
Mark Keeffe	MDT	406-444-3430	<a href="mailto:mkeeffe@mt.gov">mkeeffe@mt.gov</a>

### Agenda Topics

A meeting was held on 8/28/15 at MDT Training Room to discuss SIMS system, as part of the Update of Strategic Plan.

Kraig provided an oversight of the SIMS capabilities. The following comments were included in discussions:

1. MDT is primarily involved with SIMS. MHP is involved though Smart Cop.
  - a. Kalispell and CSKT are local agencies using Smart Cop.
  - b. Smart Cop has been barrier due to requirement for additional coding due to MMUCC data requirements (large number of data fields).
  - c. Interest in pursuing modification where Smart Cop would accept some empty fields (null-setting).
2. Discussed FARS and that fatality is quickly recorded as a preliminary crash but is not entered into SIMS until report is complete. Time gap exists but not critical.

- END -

### Follow Up Items

- Confirm with Cal (MHP trainer) on number of Smart Cop participants.

# Meeting Minutes - TRSPU GF District Overview



◇ **Date:** 9/4/2015  
**Time:** 9:00 AM  
**Attending:**

**Facilitator:** Kathy Harris  
**CC Minutes:** Mark Keeffe, MDT

Name	Company/ Organization	Phone Number	E-Mail
Dave Hand	MDT- District Admin	406-454-5887	<a href="mailto:dhand@mt.gov">dhand@mt.gov</a>
Tony Strainer	MDT-GF Maintenance	406-454-5889	<a href="mailto:tstrainer@mt.gov">tstrainer@mt.gov</a>
James Combs	MDT-GF Traffic	406-455-8327	<a href="mailto:jcombs@mt.gov">jcombs@mt.gov</a>
Steve Prinzing	MDT-GF Engineering Services	406-454-5899	<a href="mailto:sprinzing@mt.gov">sprinzing@mt.gov</a>
Scott Fanning	KLJ	406-441-5785	<a href="mailto:Scott.fanning@kljeng.com">Scott.fanning@kljeng.com</a>
Kathy Harris	KLJ	406-441-5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 4<sup>th</sup> at 9:00 am at the Great Falls MDT Office to discuss District use and involvement with Traffic Data. Meeting discussion included:

1. SIMS has been great benefit. Jimmie is the primary user of the data.
2. Ideally, spatially located-data should be available.
  - i. Right-of-way including permits/easements/driveway approaches/etc.
  - ii. As-built plans
  - iii. Utility permits
- b. Missing data includes connection to as-built information (about roadway). Items such as super elevation (older, county roads were often built with super changing at centerline to flatter super on the high side of curve) or slope flattening.
- c. The GF District has recently inventoried physical features with GPS locations including:
  - i. Signs
  - ii. Culverts
  - iii. (guardrail) Terminal ends
3. Ideally, construction and maintenance should be sharing data.
4. Maintenance staff reports wildlife carcass pickup by reference post (RP) which ties to all their other systems. 12 maintenance crews in the District.
5. Maintenance staff does not currently report "repeat maintenance fixes" such as impact attenuator replacement or snow-drifting. These are possible areas that could benefit from safety data/funding. This data is recorded in the maintenance management system, however.



6. Tribal roadway data is not reported (to MDT systems) and is a known lack-of-data. Only crashes with fatalities are reported because Montana Highway Patrol investigates those. District believes the tribal roads would be eligible for safety funding if the data was reported.
7. Maintenance Management System (MMS) is being updated.

- END -

# Meeting Minutes - TRSPU & SOARS



◇ **Date:** 9/11/2015  
**Time:** 7:30AM

**Facilitator:** Kathy Harris  
**CC Minutes:** Mark Keeffe

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Sheila Cozzie	Cultural Liaison/SOARS - MDT	406.444.7301	<a href="mailto:scozzie@mt.gov">scozzie@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 11, 2015 to discuss SOARS program and TRSPU interaction.

1. Sheila manages the Safe on All Roads (SOAR) program and Selective Traffic Enforcement Program (STEP on reservations which funds additional law enforcement during key times) at MDT. She is aware of TRCC.
2. SOAR provides funding for part-time tribal position for education and media outreach on vehicle safety.
3. Future NHTSA funding is likely to reduce.
4. Sheila noted (lack of) seat belt usage is number one injury for tribes.
5. Sheila recently submitted a TTSA grant application to create a Northern Tribal DUE/Drug Task Force for combined Blackfeet, Fort Belnap & Fort Peck & Rocky Boy Reservations. Task Force would include law enforcement, health departments & colleges & others. Did use (available) crash data for application.
6. Sheila uses the FARS data and also get occasionally other data from reservations. Lack of data does affect the lack of resources applied to roadway safety on reservations.
7. Fort Peck & Fort Belnap Tribes have expressed interest in electronic data collection (thru MHP program). Key barrier is the tribal desire for confidentiality/ sovereignty of personal data (for tribal members).
  - a. Redaction may not address the tribal desire for confidentiality or may require additional effort.
8. She also noted that Fort Peck has cross-jurisdictional MOA for city/county/tribal law enforcement.
9. Tribes are aware of, data collection benefits/requirements due to BIA data needs.
10. Needs:
  - a. Integrate tribal data (possibly input at tribal level before getting to SIMS)?
  - b. **Consider funding tribal staff to enter data, maybe Enforcement or Health Service instead of Transportation.**

- c. Provide confidence in confidentiality/privacy of personal information reported for crashes.
- d. Collect tribal safety data to leverage for other grants (such as task force application).

- END -

## New Action Items

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1. Sheila will provide copy of grant application for Tribal Task Force.

# Meeting Minutes - TRSPU



◇ **Date:** 9/18/2015  
**Time:** 10:30AM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keeffe, Thomas McMurtry,  
Molly Herrington, Becky Bey

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Doug McBroom	MDT	406.444.6157	<a href="mailto:dmcbroom@mt.gov">dmcbroom@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 18, 2015 at MDT to discuss Maintenance Management System (MMS) and the TRCC.

1. Doug was unaware of the TRCC (specifics) and the use of traffic records. Is aware that NHTSA is data-driven.
2. MMS:
  - a. Will be replacing a 1980's, Oracle system
  - b. To come on-line in 2016,
  - c. Will track Labor, equipment and materials used on Maintenance Activities
  - d. Will track by location (generally for both route and GPS coordinates)
  - e. Signing/Striping Retroreflectivity:
    - i. Signs require manual (eye) measurement at night and are not expected to be included.
    - ii. Striping reflectivity is based on sample of edge strip at fairly lengthy intervals. Note, striping is often viewed by corridor and experience for when to plan for replacement (on a corridor level).
  - f. Is being created by Agile Assets (same as SIMS and PMS).
  - g. No (MMS) integration with SIMS is currently funded. **NOTE: timing may be opportunity for support funding for integration of MMS & SIMS.**
3. How use Safety/Crash Data.
  - a. Can drive maintenance activities, such as
    - i. Implementing safety improvements (signs, guardrail, etc.) based upon request from District or Traffic.
    - ii. Occasional input data, such as updating barrier rail to new requirements (e.g., 3 to 4 pin installation which is being mandated for safety reasons).



- b. Data Input. Wildlife carcass collection is noted by Maintenance but is not recorded electronically. Note that Maintenance primarily communicates via radio to avoid cell-phone dead-zones. (So Maintenance crews do not have GPS capability).
  - c. Kathy follow up: Can HSIP funds be used for maintenance?
  - d. **CONSIDER: Should maintenance data link into SIMS?**
4. **Note:** Lack of construction as-builts into MMS.
- a. Although CADD has existed for decades, it does not (electronically) link into systems' databases to record design or as-built conditions.
5. **Note:** Education and enforcement need to be linked to be effective (in changing driver behavior).

- END -

# Meeting Minutes - TRSPU



◇ **Date:** 9/17/2015  
**Time:** 11:00AM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keefe, Thomas McMurtry,  
Molly Herrington, Becky Bey

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Matt Strizich	MDT	406.444.6297	<a href="mailto:mstrizich@mt.gov">mstrizich@mt.gov</a>
Mary Gayle Padmos	MDT	406.444.6149	<a href="mailto:mpadmos@mt.gov">mpadmos@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 17, 2015 at MDT to discuss pavement management systems PMS and TRCC.

1. PMS or PVMS (internal to MDT) is maintained by MDT staff & currently in 3rd or 4th version.
2. Measures physical metrics via instruments on van which covers 22,000 miles (plus urban waters) annually. Metrics include:
  - a. Rut
  - b. Ride (an index not a measurement)
  - c. GPS Coordinate
  - d. Crackling
  - e. Video

System also links with MDT's Path-Web (viewing tool).

3. Annual report produced.
4. Pavement metrics are then used to recommend treatments (considers all treatments) & assists prewriting severest conditions.
5. Used to identify, decision - making for treatments. Used as a decision - tool for Districts on resurfacing finds.
6. Consider - should pavement measurements be coordinated with crash records by GPS (link PMS & SIMS)?

- END -

# Meeting Minutes - TRSPU City of Kalispell



**Date:** 9/3/2015  
**Time:** 1:00 PM

**Facilitator:** Kathy Harris  
**CC Minutes:** Mark Keefe, MDT

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Teresa Parker	City Police Record Management System, Kalispell	406-758-7785	
Kathy Harris	KLJ	406-441-5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A drop in visit, was held on September 3<sup>rd</sup> at 1:00 pm at Kalispell Police Office to discuss the city's use of crash data and their recording method.

Teresa noted:

- Mobile Forms are being used (but not Smart Cop system?)
- Officer fills out mobile form back at office, after being at the site. Due in part due to large amount of data required.
- City is looking at different systems including New World System or AEGIS Learning package
- Did not know of any city data inquiries, only provided input data.

- END -

# Meeting Minutes - TRSPU



◇ **Date:** 9/11/2015  
**Time:** 10:30 AM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keeffe, Thomas McMurtry,  
Molly Herrington, Becky Bey

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Amy Palmer	Department of Justice	406.444.1953	<a href="mailto:apalmer@mt.gov">apalmer@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

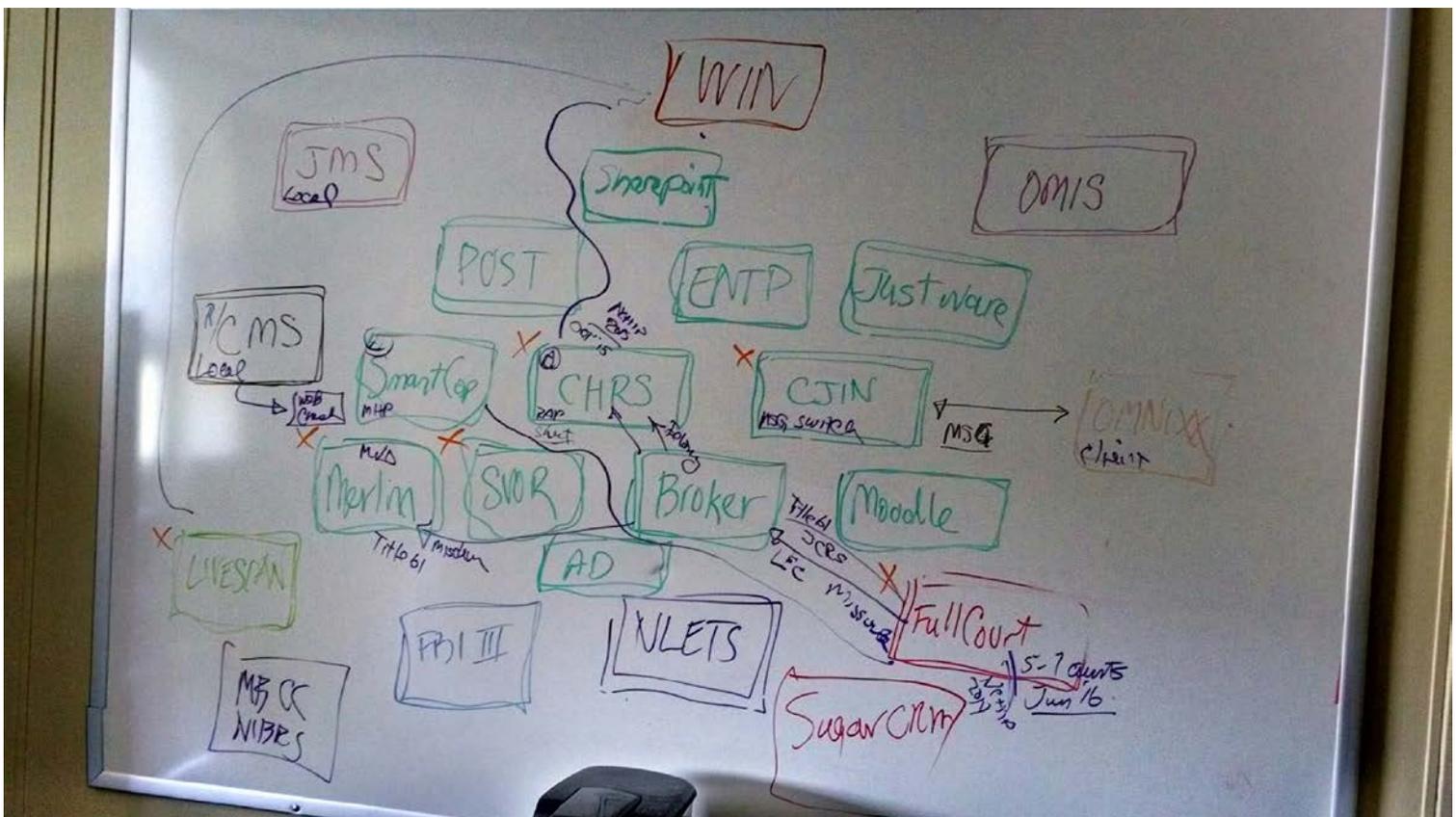
A meeting was held on September 11, 2015 at DOJ offices to discuss the TRCC and TRSPU.

1. Amy is currently a project manager for DOJ IT and has been involved with
  - a. SMART COP
  - b. TRCC
  - c. CHRS, Criminal History Rap System (and will soon be moving to solely manage this system upgrade and will move off the TRCC)
  - d. CJIN, Criminal Justice Information Network
2. Criminal/justice data systems are typically not interfaced and may be very user specific (separate for each court, etc.). See sketch at end of minutes and affected systems include:
  - a. LiveSpan, federal fingerprint data base which does not link into systems below
  - b. NDX-National Data Exchange. FBI driven system to capture local data (post 9-11). Montana initially tried but has not pursue this data based. There may be a SMAR COP to NDX transfer. Who gets how much data because a concern.
  - c. Full Court, individual court's data
  - d. Broker-the connection from Full Court to the CHRS which tracks all citations
    - i. Note only Lewis & Clark County and Missoula County are currently using an electronic transfer to get records from Full Court to CHRS
  - e. Smart-Cop. MHP system to track vehicular incidents. Smart Cop electronically transfers into Full Court.
    - i. Web-based. Information system input.
    - ii. Violations are automatically entered into Full Court (DOJ database).
    - iii. Noted that MHP will need to correct data (sample multiple names for same person, etc.).
    - iv. Are citations always issued by MHP? -No.

- v. Follow Up: ? does SIMS transfer into any justice system?
  - f. MERLIN. Motor Vehicle System for driver license and tracks traffic citations. Full Court is suppose to track into MERLIN.
  - g. IBRS. Individual Based Report System. Federal requirement for the Montana Board of Crime Control (MBCC). Does not appear to connect with local data systems. Has data that does not reconcile with Traffic Safety (SIMS) data for numbers. **CONSIDER:**
    - i. Lack of Accuracy. (IBRS data does not correlate to SIMS data).
    - ii. Lack of integration.
    - iii. This is locally reported.
    - iv. MHP does not report into IBRS.
    - v. If MHP does not issue citation at crash, then incident does not enter IBRS.
  - vi. FOLLOW UP - what is IBRS used for? (Possibly for trend analysis)
  - h. Local Systems (often Independent) and typically do not provide data transfer into Smart Cop
    - i. Traffic Violations or Court of Limited Jurisdiction. Reports into Full Court. Note violations may be a misdemeanor which goes to MERLIN at DMV or a felony which goes to CHRS.
    - ii. JMS: Jail Management System.
    - iii. CMS or RMS, Case (or Records) Management System. This varies between each court/law enforcement agency.
    - iv. Note: TRCC is currently funding a link from CMS into SMART COP through the Web Crash reporting tool. For 6 large urban areas only. Grant may not cover final costs?
3. TRCC benefits.
- a. Only forum/ funding for data-sharing between Departments.
  - b. TRCC funded-upgrade network connection into MERLIN system for DOJ.
  - c. TRCC funded hardware & software upgrades for SMART COP for DOJ/ MHP.
  - d. TRCC funded Cal Schock training on web and also the local link into CMS to larger urban areas.
  - e. TRCC funding JCRS update (contact Michele Snowberger).
4. **TRCC issues:**
- a. Could "CMS interface" really improve results?
  - b. Accuracy. Paper entries defeat accuracy,
  - c. Interface of system is very complex.
  - d. Management does not understand interface
    - i. Complexity
    - ii. Lack of consistent data
    - iii. Impacts that (this lack) creates in decisions
  - e. Note: the Criminal Records systems are incomplete.

5. TRCC or TRSPU Highest priority:
  - a. Analyze crash data to determine (physical) road safety improvements (to assign funding based on data - driven decision).
  - b. Analysis on which demographics need to change (e.g. drunken driving educational funding, etc.)

### Other Notes or Information



- END -

# Meeting Minutes - TRSPU



◇ **Date:** 9/21/2015 **Facilitator:** Kathy Harris  
**Time:** 4:00 PM **CC Minutes:** Mark Keeffe

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Lisa Mader	Chief Information Officer for Judicial Branch	406.841.2956	<a href="mailto:lmader@mt.gov">lmader@mt.gov</a>
Mark Keeffe	MDT	406.444.3430	<a href="mailto:mkeeffe@mt.gov">mkeeffe@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 21, 2015 at 310 South Park, Suite 328 to discuss traffic records/data collection.

1. Lisa is a TRCC member, responsible for the overall Court Information Systems. Her role on the TRCC is related to a data contribution and sharing. A piece of the comprehensive data requirements for NHTSA.
2. Her group is a provider of information, not a consumer and primarily manages data.
  3. After discussion, no clear direction that more crash data would be helpful to the judicial system as they primarily focus on citations.
  4. Not aware of how crash data is used.
5. Current NHTSA funds have assisted with Smart Cop and the electronic data interface/transfer into the courts systems.
  - a. This has been very successful, resulting in time savings and more accurate data.
6. General background on the Court Systems:
  - a. Download through the "Broker"
  - b. Has been using Full Court system since 2001
  - c. Approximately 12% of courts report electronically
  - d. SMART COP is the data collection tool
    - i. MHP can scan driver license
    - ii. Web based use cannot scan driver license data base as they do not access CEGIS
  - e. Tribal Courts are outside Lisa's jurisdiction
  - f. Previously, Court system provided data output to MDT which has been terminated. No one was aware of why data was needed at MDT (confirmed by Kraig McLeod).

- g. Noted that courts may not get any follow up information on compliance of behavior programs. The behavioral programs and not driven by metrics or data.
  - h. During Legislative years, Lisa commented that requests come legislators to DOJ/MHP and or MDT. Unaware if data provided is consistent.
7. Future funding needs (for Court System)
    - a. CMS is being revised. There may be future need for interface with safety data, but not currently known.
  8. How do you use Safety and Traffic Data/Records?
    - a. Provide data only
  9. No comment on Investment Strategy, except TRCC has benefit of bringing agencies together for common purpose (improving data use/ sharing).
    - a. Leverage Funding
  10. What are Traffic Records? (More than safety?)

- END -

# Meeting Minutes - TRSPU & Emergency Services

◇ **Date:** 9/15/2015  
**Time:** 10:00 AM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keeffe, Thomas McMurtry,  
Molly Herrington, Becky Bey

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Jim Detienne	Montana DPHHS	406.444.4460	<a href="mailto:jdetienne@mt.gov">jdetienne@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on 9/15/15 at DPHHS offices to overview the TRSPU & TRCC.

1. Jim has been a member of TRCC since inception.
2. Good items from the Strategic Plan
  - a. Helped defined what issues/question need to be answered.
  - b. Helped find data element to answer those questions, and where the data is located
  - c. TRCC has committed to finding/defining multiple data systems
3. The Strategic Plan Update should address:
  - a. Update the questions to be answered /direction of TRCC. Why are we collecting this data?
  - b. Define how to develop data to work for benefits
  - c. Data is not shared (e.g. multiple driver citations may not be reflected in the various systems). **Need-can this be solved by better system interface?**
4. DPHHS data systems:
  - a. Trauma Registry. Registry managers Carol & Alyssa also contributed to this section.
    - i. Registers fatal/surgery/higher-level-of-car patients in hospital
    - ii. Submitted to DPHHS quarterly.
      1. Large hospitals submit electronic data, but not directly into database.
      2. Smaller hospitals have recently upgraded to a web-based system to upload which enters database directly.
      3. 8 of 63 hospital do not report. Smaller hospitals are often tapped due to limited resources, multiple job responsibilities, staff turn-over, etc.
      4. Approximate 43% trauma are traffic relocated (vehicle).
      5. Timing-submitted quarterly.
        - a. When EMS is involved, time of dispatch is included.

- b. Note 35% of trauma are delivered to hospital by non-ambulance/EMS methods.
        - c. Electronic records started in 2004 for larger hospitals and in 2006 for smaller (paper submittal for many years).
      - iii. **LARGE ISSUE:** MHP definition of “serious or incapacitating injury” is made at the incident by non-medical personal. Trauma definition is specified by medial personal at a later time, based upon attached definition.
      - iv. **FUTURE ISSUE:** Can SIMS connect into Trauma Registry? Preferred due to medical privacy issues. SIMS also have privacy restriction.
    - b. NEMSIS Database. National Emergency Management System Information System. This NHSTA funded standard was developed to consistently report EMS data.
      - i. Contains about 10 years of data
      - ii. Montana is on Version 2 of the standard protocol. Database is becoming problematic due to age and logistics.
      - iii. System is used by some EMS for patient information as it continues the Patient Care Records (NEMSIS compliant).
      - iv. Montana (Jim) is developing RFP for new data set which will be NEMSIS 3 standard and should better link with the Trauma Registry. Hopes to have new version by 1/1/16.
- 5. NHTSA is funding performance measure study called EMS COMPASS. Results to be done by 6/20/16.
- 6. About 43% of trauma involves motor vehicle (crashes).
- 7. RAC: Regional Advisory Committee for trauma. St Pats in Missoula covers western MT, Benfis in Great Falls covers central and Billings’s hospitals cover east/south. A governor’s report and other emphasis for using results toward education of EMA or hospital for changing patient care. (this seems to gear away from TRCC).
- 8. Pentaho: New software relational database for pre-hospital registry and trauma registry. Jim would like to link into SIMS (or traffic crashes). Need follow up:
  - a. Can this be legally shared?
  - b. How to import SIMS data into Pentaho and still protect privacy?
  - c. Need to define how this would benefit crash records/data for safety?
- 9. Previous TRCC funding was used for:
  - a. Trauma registry
  - b. Pentahoe data (some)
- 10. TRCC:
  - a. Good job on selecting projects and supported existing data bases
  - b. Good job on leverage other funding
  - c. Traffic records generally seem complete, timely and comprehensive
  - d. Need to educate that these decision affect public policy.



11. General comments:

- a. EMS is typically volunteers
- b. Response times (for EMS) are slowing.

- END -

## Other Notes or Information

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Attachment: Trauma Registry Inclusion Criteria:

# Meeting Minutes - TRSPU & MHP Trainer

◇ **Date:** 9/17/2015  
**Time:** 7:30AM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keeffe, Molly Herrington,  
 Becky Bey, Thomas McMurtry

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Cal Schock	Montana Highway Patrol	406.438.2621	<a href="mailto:cschock@mt.gov">cschock@mt.gov</a>
Mark Keeffe	MDT	406.444.3430	<a href="mailto:mkeeffe@mt.gov">mkeeffe@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 17, 2015 to discuss Montana Highway Patrol (MHP) and their role with the TRCC.

1. Cal has been a long-standing member/participant with TRCC.
2. MHP responds to about 22,100 Montana crashes (in 2014).
3. Data collection:
  - a. MARS format (1599 form) converted to MMUUC compatible in about 2008. Was archived around 2010.
    - i. Previous records were converted although conversion did not include drawing and narrative (which can now be captured via pdf format).
  - b. Local Enforcement Agencies (LEA) still use 1599 form to record data/investigate.
    - i. Billings, Missoula & Bozeman investigate fatalities. Other cities call MHP.
    - ii. Phillips, Madison & Rosebud Counties can provide their own crash reports.
  - c. SMART Cop data base came online.
  - d. Location and causation are key data points for MHP.
  - e. Level of detail (of crash reporting) creates a resource (staffing) challenge.
4. Data Input:
  - a. Web crash entry does not allow copy/paste inserts from other data bases (driver or vehicle license from DOJ or DMV). (Follow-up: Can web-based access those data bases).
  - b. MHP records on-sight photos which are not uploaded to SIMS. (Follow-up: is this a need?)
5. Data Distribution:
  - a. MHP release crash forms to individuals (listed on forms) or their representative.

- b. MHP releases other data-after further manipulation
- 6. Timing (of crash record):
  - a. MHP has 10 days to submit report after investigation.
  - b. If a fatality occurs within 30 days, it can be captured in the Smart Cop data base.
- 7. Critical versus Serious Injury. Data is recorded by non-health professional, at the time of the incident.
- 8. **NEEDS:**
  - a. Prefer medial personal (EMS) determine critical versus seriousness of injury. Reassign decision to more-qualified person (health care instead of law enforcement).
  - b. Integrate data from MIRES or other data bases (to reassign away from law enforcement)
  - c. (MHP) Supervisor training for quicker/accurate approvals of incident reports. Supervisor approval is required before being submitted to SIMS.
  - d. MMUCC compliance should be more flexible-still accept data if some cells are not completed. Can this be accomplished when the data is transferred?
    - i. Create usable copy/paste format
  - e. Training needed for LEA on data input (including access to other databases). Results in inaccurate data.

- END -

# Meeting Minutes - TRSPU & MHP



◇ **Date:** 9/17/2015  
**Time:** 10:00AM

**Facilitator:** Kathy Harris  
**CC Minutes:** Mark Keeffe

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Robert Armstrong	Montana Highway Patrol	406.750.6472	<a href="mailto:rarmstrong@mt.gov">rarmstrong@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting, was held on September 17, 2015 to discuss TRCC and crash records usage.

1. Bob's new position will place him on TRCC. Minimal previous involvement.
2. General discussion included:
  - a. City police typically use 1599 forms from MARS (not Smart Cop form)
  - b. MHP will assist within city limits, if requested
  - c. Larger cities will complete full investigation and are slowly transitioning to web-based reporting.
3. Possible other area is data-division enforcement, CAMA.
  - a. Contact Gordon Booth

- END -

# Meeting Minutes - TRSPU & IHS

◇ **Date:** 9/15/2015  
**Time:** 1:30 PM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keeffe, Thomas McMurtry,  
Molly Herrington, Becky Bey

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Darcy Merchant	HIS, Environmental Health Services	406.247.7097	<a href="mailto:Darcy.merchant@ihs.gov">Darcy.merchant@ihs.gov</a>
Joe Amiotte	HIS, Associate Area Director	406.247.7090	<a href="mailto:Joe.amiotte@ihs.gov">Joe.amiotte@ihs.gov</a>
Craig Genzlinger	KLJ	406.447.3357	<a href="mailto:Craig.genzlinger@kljeng.com">Craig.genzlinger@kljeng.com</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 15, 2015 at Billings-area Indian Health Service (IHS) offices to overview the TRSPU & TRCC.

1. Darcy is a user of data. Was unaware of TRCC but aware of SIMS.
2. HIS focuses on Injury Prevention and saving lives.
  - a. Track severe injury & causes.
  - b. Uses electronic data surveillance system. Began around 2002 in Montana and fully captured starting in 2008.
  - c. Injury Prevention Board for each community. Should these Boards have data?
  - d. Also a Law Enforcement Board for tribes. Uncertain of interaction.
3. In 2008, it was recognized the DOT and tribal data did not interact and was not consistent. One causation is variable data inputs.
  - a. CISCO system was being used (? 2008-2012), led by BIA. Funding has not been renewed and this system is not being used consistently.
  - b. BIA has Indian Highway Safety Funding which can fund officers. Annual funding is uncertain.
4. WISQARS: system to track fatalities. Uncertain who completes this report
5. Data:
  - a. FARS data does not get routed to Darcy, but would be useful for IHS activities. Note that some tribal law enforcement is starting to have officers trained to do crash reconstruction and their own data collection, which may or may not be shared with Darcy at IHS or MDT.

- b. Darcy uses Arc GIS/Arc Map and SPSS systems to collect and utilize data. Focus on identifying trends and then work through (Sanitarians) to enact change to reduce injuries/save lives.
    - i. If tribes collect this data, then Darcy's funding would be transferred to that tribe and not be used at IHS level.
    - ii. Sanitarians current work about 25% on injury prevention.
    - iii. Difficult to track results.
  - c. Data collection is difficult. **CONSIDER**: Could tribal sanitarians get training for data collection? (GIS and data recording such as Cal Schock @ MHP).
  - d. **Sharing of data (traffic records on tribal members) is issue. Sovereignty of data. Can we educate that data sharing can benefit the tribes?**
6. TIPCA. 2 Tribes applied for funding.
  7. Tribal Motor Vehicle Injury Prevention Grant (a CDC Grant).
  8. TRCC-Joe stressed that there is a **need to show the lack of data is affecting injuries**. Clarify (to tribal councils, etc.) that sharing the data is not disrespectful.
  9. **CONSIDER**: MT-WY Tribal Leadership Council (TLC) may be audience to educate on benefits/needs of collecting traffic data. Upcoming meeting?
  10. **FOLLOW UP** research:
    - a. CDC tool kit (or grant)
    - b. CDC grant for MV crash in Indian County
    - c. Tribal Motor Vehicle Injury Prevention Grant

- END -

# Meeting Minutes - TRSPU

◇ **Date:** 9/16/2015  
**Time:** 9:00 AM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keeffe, Thomas McMurtry,  
Molly Herrington, Becky Bey

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Jose Figueroa	Chief of Police, BIA-Crow Reservation	406.638.2957	<a href="mailto:Jose.figueroa@bia.gov">Jose.figueroa@bia.gov</a>
Craig Genzlinger	KLJ	406.447.3357	<a href="mailto:Craig.genzlinger@kljeng.com">Craig.genzlinger@kljeng.com</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on September 16, 2015 at law enforcement offices in Crow Agency to overview the TRSPU & TRCC.

1. Jose has worked at multiple reservations including Fort Peck. 2 years at Crow.
  - a. Fort Peck has tribal-cross-jurisdiction agreements which Crow does not.
2. The Crow Reservation has no Traffic Code (has in past years but rescinded by current Tribal Council). Makes enforcement difficult, which relays to safety and education also. No seat belt, child restraint, driver license or vehicle standards.
3. BIA enforcement (on Crow)
  - a. 5 tribal officers, 2 of which are funded with grants
  - b. 1 Highway Safety officer which cannot keep currently staffed (recently became open)
4. Crash Data:
  - a. Incomplete Reporting for Crow Reservation: Jose noted that his officers report/respond to 34-40 crashes (excluding MCS trucks) on reservation roads during October-February. **Follow-up:** clarify # with SIMS to correlate lack of data.
    - i. Sharing of the BIA data would require Tribal Council approval-and would need to be regularly re-sought, as council turns-over. **CONSIDER:** Presenting request to Tribal Council to seek data, need to show benefits e.g. funding. Consider higher-level (from MDT and to Council or Tribal Leadership Council). Need to emphasize limited data and no personal data other than Limited) demographics on age, gender, condition, etc.
  - b. If crash involved truck (?MCS) or non-tribal person, then the County is called to respond.
  - c. Crash with no injury is not reported.
  - d. Data use Potential:



- i. Jose currently uses SOAR fatality data
  - ii. Does not get MHP data (for reports within reservation limits). **CONSIDER**: is this a need to report back to reservations?
- e. Jose see's technology benefits, in addition to IMARS (potentially toughbooks, etc.)
- 5. NHTSA funding in the 90's was directed toward BIA for collecting traffic data and enforcement. (Lou Robinson out of Albuquerque). Monies were not well spent and unlikely to be available now?
- 6. Jose is seeking other options including driver education at the tribal college.
- 7. Jose was unaware of the TRCC.

- END -

# Meeting Minutes - TRSPU

◇ **Date:** 10/6/2015  
**Time:** 3:30 PM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keefe, Thomas McMurtry,  
Molly Herrington, Becky Bey, Craig Genzlinger

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Craige Couture	CSKT Chief of Police	406-675-4700	<a href="mailto:Ndtf22@yahoo.com">Ndtf22@yahoo.com</a>
Louis Fiddler	CSKT Police Captain	406-675-4700 x 1107	<a href="mailto:louisf@cskt.org">louisf@cskt.org</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on October 6, 2015 at law enforcement offices in Pablo to overview the TRSPU & TRCC.

1. No awareness of the TRCC or TRSP.
2. CSKT uses State Code (vehicular for citations). Officers get tribal, state & federal (law enforcement) training which results in credibility/knowledge in these 3 individual protocols.
3. Patrol officers are state certified (not BIA-certified). CSKT does not share data with BIA.
4. Data Reporting:
  - a. CSKT has always used highway (patrol) reporting for vehicle crashes.
  - b. 18 employees, 12 are patrol officers
  - c. MHP-Cal Schock has provided officer training.
  - d. Smart-cop is currently used and officers enter data in office (not at site) before reporting into Helena.
  - e. Captain (or other) review/approves report prior to submittal.
  - f. Fatalities: call in MHP for reconstruction. CSKT assists as needed. Good cooperation & responsiveness.
  - g. Officers receive full law enforcement training.
5. Data Use:
  - a. Craig supported use of the annual crash reporting from MDT.
  - b. Does not typically share data with CSKT Road (or other) Department, but starting toward data sharing.
  - c. Citations:
    - i. Issued to Tribal member, then goes to Tribal Court.
    - ii. Non-tribal member, then goes to respective city or county court. Noted small courts are having trouble staying current and timing is slipping.



- iii. CSKT officers can write citation for non-tribal and tribal members. CSKT can arrest tribal and non-tribal members for crimes.
  - iv. Currently, Carbon Copy transferal of citations (to courts). **CONSIDER**: Efficiency with electronic transfer/automatic reporting
  - v. **Note**: Court sharing and DUI information is not consistent (heard from Justice Systems e.g. , multiple arrests do not get pulled forward as multiple..... )
6. STEP and SOAR programs.
- a. SOAR- recent challenge with transition of tribal staff.
  - b. Increased enforcement (visibility) provides great benefit.
  - c. See vehicle (safety) benefits for increased enforcement and reduction in other crimes as well
  - d. People use Social Media to share info about increased enforcement.... And that effects behavior.
  - e. **CONSIDER**: Possibly consider more media/advertisement to effect behavior.
7. Funding Needs:
- a. Computer hardware in offices cars. Not currently provided.
  - b. Hardware to print out citations in vehicles (at site)
  - c. Noted-software licensing fees are difficult to pay annually.
  - d.
8. There have been no data-sharing concerns from tribal members or Council in years. Council appears to understand return benefits resulting from data-sharing.

- END -

# Meeting Minutes - TRSPU



◇ **Date:** 9/24/2015  
**Time:** 8:00 AM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keeffe, Becky Bey, Thomas McMurtry, Holly Herrington

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Michele Snowberger	MVD-Records & Driver Control	406.444.1776	<a href="mailto:msnowberger@mt.gov">msnowberger@mt.gov</a>
Lisa Wanabe	MVD-Business Systems Analyst	406.444.1776	<a href="mailto:lwvanabe@mt.gov">lwvanabe@mt.gov</a>
Mark Keeffe	MDT	406.444.3430	<a href="mailto:mkeeffe@mt.gov">mkeeffe@mt.gov</a>
Kevin Dusko	MDT Highway Traffic Safety	406.444.7411	<a href="mailto:kedusko@mt.gov">kedusko@mt.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on 9/24 at DOJ offices to discuss Department of Motor Vehicles (DMV) and the TRCC.

1. TRCC. Michele is member and Lisa has participated.
  - a. Benefits includes a forum for agency exchange on data exchange.
  - b. Good opportunity to reduce “silo-ing” that can easily occur between state agencies.
2. DMV is a primarily a supplier of data to others.
  - a. CLS licensing
  - b. MHP offices
  - c. Others who request driver and vehicle records.
  - d. DMVS does not analyze, due to limited resources. **Otherwise could possible improve**
    - i. data sharing
    - ii. Data that effects policy change
    - iii. Data that effect environmental change (e.g., change of driving environment)
3. For crash records.....DMV only deals with convictions. Conviction occur:
  - a. After citation is issued.
  - b. After court appearance/sanction. Sanction may be suspension or revocation of license, etc.
  - c. Only appears back on DMV records for action AFTER conviction. Note citation or non-appearance or bond forfeiture all result in incomplete (DMV) record of traffic crash.

4. MERLIN is system which houses vehicle registration and license plate data. Driver license info is migrating into MERLIN (not complete).
  - a. Montana statute states can only record **info on Driver License Record IF convicted of a causality-related citation"** (note-limiting factor for data collection for TRCC). E.g., the court must convict that the citation was a cause of the crash. Can be challenging to prove causality.
  - b. Montana law states Driver License will not comply with Federal Real ID Act (for privacy reasons).
5. Data reporting uses:
  - a. Multiple federal requirements
  - b. Need improved agency coordination (e.g., court reporting)
  - c. DUI reporting is used for education and for legislative (inquiries)
  - d. DOT-public/behavioral campaigns
  - e. DPHHS compliance (for example chemical dependency bureau info for follow up for addiction treatment, etc.). Data is sent via fax and then is manually reported into DMV system. Some multiple DUI treatments require compliance to be confirmed, typically from provider of program.
6. Data Gaps:
  - a. For 2<sup>nd</sup> or 3<sup>rd</sup> DUI, the previous DUI charges may not have resulted in conviction, which means the DMV system does not recognize this as a repeat.
  - b. Lisa note that data collected in the field (at the site) is often not clean enough. **FOLLOW UP: should new comparison be made to determine the accuracy?**
  - c. Drive identification accuracy varies. DMV needs 2 of 3: name, date-of-birth, DL number to clearly ID driver. This data does not always ID the correct person. Note have improved but 10 years ago only 30% of matches were found between MHP and DMV.
  - d. What is % of no-hits on court citations versus the driver ID?
  - e. Vehicle license plate numbers can duplicate (between counties).
  - f. No (or limited) Tribal data, vehicles or drivers.
7. How is crash data used?
  - a. Lisa thought used for analysis and correction f road issues.
  - b. Michele supported with identification of trends that result in contributing factors (correct/educate on driver behaviors).
  - c. **FOLLOW UP: have traffic records results updates with TRCC-at regular intervals.**
8. Investment Opportunities:
  - a. Lisa supported continue comprehensive data sharing.
9. Mark noted he had hoped to use data for new areas, possibly summary of individuals involved in crashes to possibly identify trends. This is not currently possible.

# Meeting Minutes - TRSPU

◇ **Date:** 10/8/2015  
**Time:** 4:00 PM  
**Facilitator:** Kathy Harris

**CC Minutes:** Mark Keefe, Thomas McMurtry,  
Molly Herrington, Becky Bey, Craig Genzlinger

## Attending:

Name	Company/ Organization	Phone Number	E-Mail
Marcee Allen	FHWA	406.441.3909	<a href="mailto:marcee.allen@dot.gov">marcee.allen@dot.gov</a>
Kathy Harris	KLJ	406.441.5784	<a href="mailto:Kathy.harris@kljeng.com">Kathy.harris@kljeng.com</a>

## Agenda Topics

A meeting was held on October 8, 2015 at FHWA offices to overview the TRSPU & TRCC.

1. Marcee participated in TRCC, but due to work load assignment changes has not been active (or regular attendee) in past few years.
2. FHWA is :
  - a. Strong proponent of improving data
  - b. Using data for decisions
  - c. Supported the 2009 Assessment through FHWA's Crash Data Improvement Program (CDIP)
  - d. Offers IHSDM: Interactive Highway Safety Design Module which has been used in other states. Not aware that it has been used in Montana.  
<https://www.fhwa.dot.gov/research/tfhrc/projects/safety/comprehensive/ihsdm/>  
**(CONSIDER:** is this future tool for data-based decisions?)
3. Traffic Records include:
  - a. Driver license
  - b. County (citations)
  - c. Crash Data
  - d. Road Data
  - e. Felt that SIMS was developed to combine these sources.
4. FHWA use of Safety/Traffic Data.
  - a. Reporting: both receive and provide reports.
  - b. Not for Analysis. Typically get analysis from MDT staff which has been very responsive.
  - c. Required for HSIP requirements.
5. Data or Technology Gaps:
  - a. Court Data
  - b. Tribal Data



- c. LEA data. Although web-based has been offered, does not seem to be fully accepted/integrated by individual LEA's.
  - d. SIMS has been large benefit. Fairly new.
    - i. SIMS data may not be used by District staff is selecting projects for safety as a priority. (Possible IHSDM use).
  - e. Technology:
    - i. IHSDM use (possible)
    - ii. MIRE data-protocol does not get fully completed
    - iii. Pathways Van-(pavement management vans to report on pavement surface conditions
      - 1. May not be getting items such as road curvature, superelevation, etc.
      - 2. **CONSIDER** Is this data being automatically sent to SIMS?
6. Investment Strategy.
- a. SIMS has been excellent investment.
  - b. Strategic Highway Improvement Plans-report is improving but continue to improve for timeline and stronger focus on problems
  - c. Comprehensive Highway Safety Plan
    - i. Recently change from 12 to 3 goals. Did goals get dropped? Possibly tribal emphasis dropped?
    - ii. Should CHIP identify projects? Or have annual review of TRCC? (Not sure of Pam's involvement with TRCC so this may be occurring).
  - d. Web training & SmartCop have been effective investments.
  - e. MCS investments were beneficial (not sure of amount and specifics).
  - f. Past projects have languished over years and tied up funds for long period. Avoid if possible.
  - g. Challenge to use crash data to insert into project selections process.
7. Annual CHSP meeting will not have a separate tribal component this year. There was progress occurring in educating tribal attendees on benefits of sharing data through multiple years of this annual conference with a day focused on tribal issues. (not included for upcoming October 2015 annual meeting).
8. TRCC/safety data does not have a champion at a high level. This is reinforced by Steering Committee being unaware of the TRCC or their role.
- 9. MDT has a (internal) Safety Committee. Unaware of any interaction between TRCC and this higher-level committee. Committee include Bureau and Division Leaders from Planning, MCS, Aviation, Maintenance, Engineering.

- END -

# APPENDIX F



## TRCC EVALUATION PROCESS



## Appendix F - TRCC Evaluation Process

The TRCC committed to improving (and changing) its application process during the final TRSPU meeting. The *first* section summarizes comments heard regarding the application/*evaluation* process during the TRSPU research and coordination meetings, while incorporating project screening best practices. The *second* section is intended to serve as a guide for TRCC to measure effectiveness of investments and to establish reporting or performance measurements for future TRCC-funded projects.

### Compilation of Strategy #15 Comments relating to the TRCC Application Evaluation Process

TRCC has a strong record of being good stewards of the public dollars allocated. The committee places an emphasis on investing in projects with the most impactful return on investment.

Moving forward, TRCC funding is assumed to predominantly be Section 405c funding. To maximize the benefit of these funds, the committee has reinforced the desire to seek other, complimentary or combination funding sources for future projects.

This section is a compilation of what was discussed through stakeholder interviews, TRCC meetings, the SWOT analysis and peer comparisons. This appendix is intended to guide strategy 15 in the strategy matrix, located in the primary strategic planning document.

### ***Proposed Project Evaluation***

TRCC receives multiple funding requests annually. In a focused effort to best invest the limited dollars available, the TRCC uses an evaluation process for project selection, prioritization and fund allocation. Discussions, as part of the Traffic Records Strategic Plan Update process, indicated the current NHTSA-based application and the TRCC process could be improved. Therefore, the application and review processes were identified as a specific Strategy for the TRCC.

Most steps in the screening process outline below can be accomplished through informational resources on the internet or through conversations with the funding applicant. This section is intended to serve as a guide for revamping the application and review processes as identified in TRCC's strategies.

### **CONCEPT**

The initial phase of the screening process involves ensuring that the concept is fully developed with a long term vision. In this phase TRCC would evaluate the following areas:

- Why is this project being proposed? Is there an existing project or program that addresses the issue being targeted through the proposed project?
- What are the short and long term goals and objectives?
- Has a realistic timeline been established?
- Does the applicant offer long-term support for operations and maintenance of the project?
- Confirm that the project really addresses the problem.



## ALIGNMENT

Projects which pass the concept phase of evaluation will then be reviewed for alignment with the five core areas of focus outlined in this strategic plan:

- **Crashes** - does the proposed project improve/enhance the crash reporting process or support a reduction in crashes?
- **Citation/Adjudication** - does the proposed project improve the timeliness of citation and adjudication integration into crash records?
- **Injury Surveillance** - does the proposed project address deficiencies/corrections in relation to injury surveillance systems including EMS data, data integration for tribal medical centers, trauma registry, rehabilitation data, etc.?
- **Data Integration** - does the proposed project aid in data linkage between related organizations?
- **TRCC** - does the proposed project align with the outcomes TRCC is governed by: completeness, accountability, accessibility, integrity, uniformity and accuracy?

## COSTS AND SUSTAINABILITY

TRCC's intent when funding projects is to partner on implementing projects that fit within TRCC scope, not to fund the operations and ongoing maintenance of the projects. The key elements that would be reviewed in relation to cost include:

- **Funding Amount.** Is the funding requested within a reasonable range for TRCC commitment?
- **Leveraging of (other) Funds.** Who are the other partners on the project? TRCC looks to partner with like-minded organizations to build a package that will get a project from concept to operation. Is this considered seed money and if so, what are future possible funding sources?
- **Funding Duration/Timing/Urgency.** When is funding needed? Is one lump sum necessary or can disbursements be spread over multiple fiscal years? Is this an urgent need, and if so, why is it not covered under agency/program funding?
- **Funding Feasibility.** Analyze the project for feasibility and cost-effectiveness.
- **Comprehensiveness of Application.** Ensure that the cost forecast determines the total amount of expenses the project will generate. Long term, can the proposed project or program fund itself?

## *Effectiveness of Investments*

Measurements and checkpoints are important for each of TRCC's investments. Measurements help TRCC identify whether requirements are being met, ensure decisions are based on the most accurate facts available and reveal unidentified problems. Dependable measurements lead to consistent, data-driven decisions and well managed projects.

Upon project selection, TRCC will meet with the applicant to establish performance standards and measurements, identify responsible parties and solidify timelines and define project communication and reporting needs.

TRCC needs to prove the investments are addressing one or more of the following areas: completeness, accountability, accessibility, integrity, uniformity and accuracy. **The following reporting and tracking requirements are suggestions on for project reporting:**



- Progress. Regular project progress reports delivered for TRCC review. Implement regular (six month, one year, five year, etc.) evaluation periods for applicable TRCC projects. The long term tracking will aid in measuring long term impacts and effectiveness.
- Schedule. Is the project on schedule based on the timeline agreed upon at the time funding was approved and allocated by TRCC? If no, why not.
- Report on NHTSA performance measures. How has the project made an impact in each of these key areas: completeness, accountability, accessibility, integrity, uniformity and accuracy?
- Success of Leveraging Funds. Partner agency evaluations. How do the project's partners, in addition to TRCC, view the effectiveness of the project?
- Problems Encountered. What roadblocks were experienced through this project? What could have been planned or completed differently to minimize the impact of these roadblocks?

# APPENDIX G



## ACRONYMS



## APPENDIX G - Acronyms

Acronym	Definition
BIA	Bureau of Indian Affairs
CDIP	Crash Data Improvement Program
CDR	Crash Data Repository
CHRS	Criminal History Rap System
CHSP	Comprehensive Highway Safety Plan
CISCO	BIA Highway Safety Data System (not generally in use)
CJIN	Criminal Justice Information Network
CJIS	Criminal Justice Information System
CMS	Case Management System
CODES	Crash Outcome Data Evaluation System
COMPASS	Initiative for EMS Performance Measures
CSKT	Confederated Salish and Kootenai Tribes
DMV	Department of Motor Vehicles
DOJ	Department of Justice
DOT	Department of Transportation
DPHHS	Department of Health and Human Services
DUI	Driving Under the Influence
EMS	Emergency Medical Services
ERS	Emergency Response Services
ESRI	Environmental Systems Research Institute
FARS	Fatality Analysis Reporting System
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FY	Fiscal Year
GIS	Geographic Information System
GPS	Global Positioning System
HSIP	Highway Safety Improvement Program
IBRS	Individual Based Report System
IHC	Indian Health Center
IHS	Indian Health Service
IHSP	Indian Highway Safety Program
IHSDM	Interactive Highway Safety Design Module
ISS	Injury Surveillance System
JMS	Jail Management System
LEA	Law Enforcement Agency
MARS	Montana Accident Reporting System
MBCC	Montana Board of Crime Control
MCS	Motor Carrier Services
MDT	Montana Department of Transportation
MERLIN	Montana Enhanced Registration and Licensing Information Network
MHP	Montana Highway Patrol
MIDRIS	Model Impaired Driving Records Information System
MIRE	Model Inventory of Roadway Elements
MMS	Maintenance Management System
MMUCC	Model Minimum Uniform Crash Criteria
NCJIS	National Criminal Justice Information System
NDX	National Data Exchange



NEMESIS	National Emergency Management System Information System
NHTSA	National Highway Traffic Safety Administration
PDO	Property Damage Only
PMS	Pavement Management System
RAC	Regional Advisory Council (trauma)
RMS	Records Management System
SHTSS	State Highway Traffic Safety Section
SIMS	Safety Information Management System
SOAR	Safe on All Roads
STEP	Supplemental Traffic Enforcement Program
SWOT	Strengths, Weaknesses, Opportunities & Threats
TDMS	Traffic Data Management System
TPO	Tribal Police Office
TRA	Traffic Records Assessment
TRCC	Traffic Records Coordinating Committee
TRSP	Traffic Records Strategic Plan
TRSPU	Traffic Records Strategic Plan Update
WBCR	Web Based Crash Reporting System
WISQARS	Web-based Injury Statistics Query and Reporting Systems

# Strategies Matrix

ID	DATA INTEGRATION	ID	CRASHES	ID	CITATION / ADJUDICATION	ID	INJURY SURVEILLANCE	ID	TRCC				
1 \$	Create a list of databases and sources of data and regularly review the list  Addresses: Integrity and completeness	2 \$	Create a formal flow chart diagram for processes governing data collection including FARS  Addresses: Completeness	3 \$\$	Create a flow chart for current processes involved with DOJ Crash related data  Addresses: Completeness, timeliness, and accessibility	4 Ø	Define who/when trauma and serious injury determination is captured in crash records  Addresses: Uniformity, accuracy, and timeliness	5 Ø	Maintain and seek to expand a multi-jurisdictional Traffic Records Coordinating Committee  Addresses: Integrity and completeness				
	Identify current tools used in electronic reporting (address tribal and WBCR)  Addresses: Integrity, accessibility and completeness		7 \$\$\$		Continue to fund and support existing systems  Addresses: All six		8 \$\$		Work with DOJ systems to determine if completeness, timeliness, accessibility can be improved.  Addresses: Completeness, timeliness, and accessibility	9 \$	Identify issues related to crash records in current injury surveillance system including EMS data  Addresses: All six	10 \$	Enhance awareness among agency leadership and agency participation by developing an annual report card  Addresses: Uniformity, accuracy, and integrity
	Continue to fund and support increasing the use of electronic data reporting among local enforcement  Addresses: Integrity, accessibility and completeness		12 Ø		Regularly engage with the BIA and Tribes to improve the data collection, sharing, and processing of crash data  Addresses: All six		13 \$\$		Create an action plan for improving citation and adjudication system data  Addresses: Completeness, timeliness, and accessibility	14 \$	Review gaps/lack of integration for hospitals, tribal medical centers, trauma registry, rehabilitation data, etc.  Addresses: Uniformity, accuracy, and timeliness	15 Ø	Develop a new project application process that better defines evaluation criteria  Addresses: All six
16 \$\$\$	Develop a data linkage plan among TRCC agencies  Addresses: Integrity and completeness			17 Ø	Improve the timeliness of citation and adjudication integration into crash records  Addresses: Completeness, timeliness, and accessibility	18 \$\$	develop a plan to incorporate these data sets into an overall injury surveillance system  Addresses: Integrity, accessibility and completeness	19 \$	Create an alternative funding sources toolkit  Addresses: Integrity and completeness				
								20 \$\$\$	Develop a comprehensive traffic records inventory as part of the data linkage plan  Addresses: All six				