



Butte-Silver Bow Community Transportation Safety Plan



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October 2012



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Executive Summary

Montana's *Comprehensive Highway Safety Plan* (CHSP), identifies urban area crashes as one of twelve Emphasis Areas. As a primarily rural state, the majority of Montana's fatal and serious injury crashes (severe crashes) occur in rural areas. However, given higher population densities, the majority of all crashes occur in urban areas. Therefore, the Montana Department of Transportation (MDT) established a program through which individual communities could apply for assistance to support the development of a Community Transportation Safety Plan (CTSP) to address transportation safety needs within their community. Butte-Silver Bow received funding assistance to initiate its own safety planning process through this program.

The Problem: In Butte-Silver Bow, an average of 27.6 fatal or incapacitating injury crashes have occurred each year for the past five years (2006-2010). In addition, dozens more crashes occur that cause less serious injuries and property damage. The toll on Butte-Silver Bow is significant in terms of suffering and economic loss.

The Approach: In the fall of 2011, Butte-Silver Bow (BSB) began working to reduce the number of severe injury crashes in the city-county through the development of a Community Transportation Safety Plan. A Transportation Safety Advisory Committee (TSAC) was established to lead the effort, drawing upon stakeholders in the community with expertise in the 4 E's of transportation safety: education, enforcement, emergency response, and engineering. Among the first accomplishments of the TSAC was to set an overall goal for the CTSP of reducing the average annual crashes by 20 percent by the year 2017. The committee reviewed BSB crash data provided by MDT's Safety Management System Analyst to help identify the most significant safety issues in BSB so resources could be focused on those factors. Based on the crash data analysis, the TSAC identified four top factors involved in fatal and incapacitating crashes in Butte-Silver Bow: young drivers, inadequate occupant protection, intersection crashes, and inattentive driving. Therefore, the focus of the plan would be on strategies that could reduce severe injury crashes with these contributing circumstances.

A central event in the planning process was convening a Butte-Silver Bow Community Transportation Safety Summit. The Summit was held in Butte on June 19, 2012. At this event 25 stakeholders from Butte-Silver Bow came together for a focused discussion of safety strategies targeting young drivers, occupant protection, intersection crashes, and inattentive driving that could work in the community, based on both national experience and local stakeholder input. These strategies shown in Table E.1 form the basis of the plan.



Table E.1 Butte-Silver Bow Comprehensive Transportation Safety Plan Strategies

Distracted/Inattentive Driving	Occupant Protection
Increase public information about cell phone ban and risks of distracted driving	Support enactment of a local primary safety belt law countywide
Continue enforcement of cell phone use while driving ban, in combination with education	Conduct increased community-wide public information and education on the importance of safety belt use (including peer-to-peer)
Conduct outreach to business community on risks of distracted driving/pursue corporate policies	Improve coordination between enforcement and prosecution
Younger Driver Crashes	Intersections
Promote parent participation in driver’s education and Graduated Drivers Licensing (GDL)	Conduct review of stop signs along key corridors
Incorporate education on traffic safety into existing pre-high school classes and programs	Improve process by which the public can report maintenance and safety needs
Establish a peer-to-peer high school safety education program	Develop a Road Safety Audit program
Develop peer youth court for minor infractions	Continue process for integrating safety considerations into ongoing maintenance and construction program
	Enhance process for maintaining vision clearance at intersections
	Establish policy for consideration of roundabouts when intersections undergo rehabilitation or construction
	Conduct ongoing public education on good driving practices
	Conduct speed, red-light running and stop sign enforcement at targeted locations

The most important part of the plan will be implementation. No reduction in crashes will occur without additional effort focused on putting new strategies into place. Therefore, the safety strategies in the plan are accompanied by guidance on their implementation, including stakeholder groups involved, leaders, resources, and timing.

Many of the strategies involve little or no cost, and can be initiated quickly, building on the momentum generated through development of the plan. New conversations are occurring, and new partnerships are being formed around safety, which will reduce crashes and improve the quality of life in Butte-Silver Bow. The plan is designed to be a



living document that can be adapted and updated by the community in three to five years as progress is made. MDT will continue to work with Butte- Silver Bow to provide crash data and assist the community to monitor progress toward its goal of reducing crashes in Butte-Silver Bow.



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1.0 Relationship of CTSP to Montana Comprehensive Highway Safety Plan

In September 2006, MDT, in cooperation with multiple agencies and stakeholders, completed Montana's Comprehensive Highway Safety Plan (CHSP). Since then, MDT has been actively supporting the implementation of strategies aimed at addressing the twelve CHSP Emphasis Areas. Urban area crashes were identified as one of these areas. Based on input from the CHSP Committee and MDT, it was determined that urban area crashes are most appropriately addressed at a local level, enabling individual communities to focus on their particular issues and needs and take responsibility for implementing the strategies that would benefit their community.

Urban Area Crashes represent a unique issue in the State of Montana. As a primarily rural state, the majority of the Montana's fatal and serious injury crashes occur in rural areas. However, given higher population densities, the majority of all crashes occur in urban areas. Furthermore, urban fatal crashes continue to represent an average of over 10 percent of Montana's fatal crashes over the past ten years as shown in Table 1.1. In 2011, urban fatal crashes represented more than 18 percent of Montana's total fatal crashes.

Given these statistics and the State's commitment to comprehensively address all aspects of transportation safety, MDT established a pilot program through which individual communities could request technical and financial support to develop a Community Transportation Safety Plan (CTSP). To participate in this program, individual communities submit a written request expressing their interest in developing a safety plan, a problem statement of perceived safety issues, and letters of community support. Communities must also identify a local plan sponsor responsible for coordinating development, implementation and tracking progress of strategies identified in the plan. Similar to the Comprehensive Highway Safety Plan (CHSP), these community level transportation safety plans must be comprehensive, coordinated, data-driven and identify safety issues within the community.

Technical and financial support is provided by MDT to assist the community in identifying community safety issues, setting a goal, developing an inventory of existing efforts, identifying new strategies to implement, and developing a safety plan and implementation schedule. The CTSP emerging from this effort then provides direction for the community to improve transportation safety at the local level. The CTSP documents the data-driven process undertaken to determine the most significant safety issues in the community and an action plan to address them.

The general approach to develop a community transportation safety plan is to use the same methodology as the State's Comprehensive Highway Safety Plan, but at a community level and at a reduced scale, consistent with the needs of the individual



community. The primary inputs to this plan are stakeholder input, analysis of existing crash data, as well as the project team’s knowledge of “best practices” in safety programs, crash data management, potential funding opportunities, and program management/implementation.

Table 1.1 Statewide Urban versus Rural Crashes

Year	Fatal Crashes	Rural Fatal Crashes	Urban Fatal Crashes	Percent Rural	Percent Urban
2002	232	209	23	90.1%	9.9%
2003	239	214	25	89.5%	10.5%
2004	209	184	25	88.0%	12.0%
2005	224	194	30	86.6%	13.4%
2006	226	204	22	90.3%	9.7%
2007	249	230	19	92.4%	7.6%
2008	208	175	33	84.1%	15.9%
2009	198	180	18	90.9%	9.1%
2010	161	139	22	86.3%	13.7%
2011	187	152	35	81.3%	18.7%

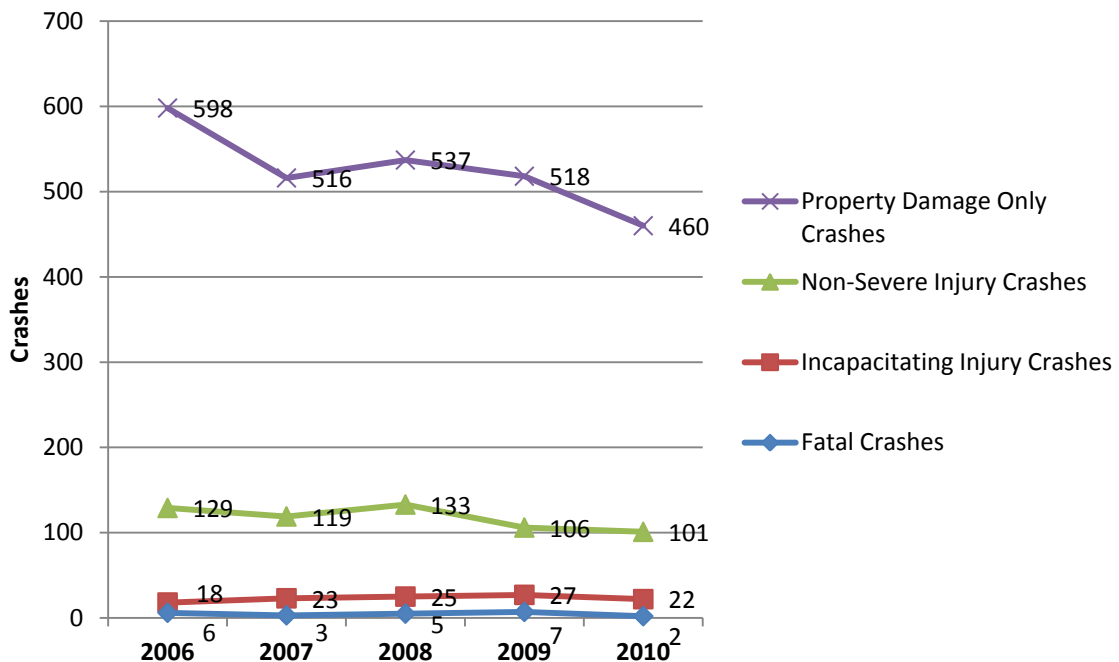
Source: MDT – Safety Management System.



2.0 BSB Transportation Safety Problem Overview

Each year in Butte-Silver Bow, an average of five people die in vehicle crashes, as shown in Figure 2.1. An additional 23 people suffer incapacitating injuries, which means their lives are forever altered and they may never fully recover from their injuries. And 118 people annually experience less severe injuries resulting in health care costs, lost time from work and other responsibilities, and potentially long-term physical consequences. Figure 2.1 shows crashes in Butte-Silver Bow by severity over the past five years. While some safety progress has been made, as has been the trend statewide, too many casualties are occurring on the roadways.

Figure 2.1 BSB Crashes by Severity 2006-2010



Source: MDT Safety Management System.

Development of effective strategies to improve safety depends on accurate and complete crash data that can be analyzed in multiple ways. Butte-Silver Bow has access to high-quality crash data via the resources of MDT's Safety Management System. This information is vital to understanding transportation safety trends in the region and pinpointing the populations, infrastructure, and driver behaviors with the greatest need for safety improvement.



The impact of traffic crashes is devastating for the families and friends of those killed or injured. Additionally, the cost to the State's economy is substantial. The economic impact of crashes to Montana was estimated at \$595 million in 2005 during the development of the CHSP. However, the suffering and economic loss caused by crashes is not inevitable. Many interventions can be taken to reduce the number and severity of crashes. These may involve government agencies that manage transportation infrastructure and operations; advocacy organizations that seek ways to educate and reduce public injury; agencies that respond to crashes and provide medical care; law enforcement agencies that enforce traffic laws; and the public in taking seriously the privilege and responsibility of driving a vehicle by making good choices when on the road.

The first step in taking action is understanding the problem. Many factors play a role in why crashes occur. Contributing circumstances include decisions made by the driver such as whether to drink alcohol before driving, drive without enough rest, drive in bad weather, talk on the phone while driving, drive aggressively or inattentively, or disregard signals and signs. The condition of the roadway is also important – are the stripes visible, is the bend in the road too sharp, are the road signs visible in the dark, or is the roadway slippery due to rain, snow, or ice? Many issues must be considered when addressing roadway safety.

Research in transportation safety has shown that nearly every crash is preventable. In most regions, including Butte-Silver Bow, human behavior plays a significant role in safety. Drivers must appreciate the skill, training, and attention required to safely maneuver a powerful two-ton vehicle. Every time a person gets into a car, the driver is presented with the opportunity to make that trip as safe as possible by obeying traffic laws, focusing on the task of driving, not driving when fatigued or impaired by drugs or alcohol, and wearing a safety belt.

At the same time, roadways should be designed so that it is clear what is expected of the driver. If the driver makes a slight error the roadway should enable him or her to recover without a major impact. Roadways should include safety features such as proper signage, adequate pavement markings, good visibility, minimal roadside hazards, and infrastructure for pedestrians and bicycles. Roadway safety features include elements such as guardrails, striping, pedestrian crosswalks, signage warning of a sharp curve, lighting, etc.

The most crucial crashes to address through safety activities are severe crashes, which result in either a fatality or incapacitating injury. Severe crashes have a very high cost both socially and financially. Therefore, the focus of crash data analysis for this plan was on fatal and incapacitating injury crashes. However non-severe injury crashes and property-damage-only (PDO) crashes, which result in damage significant enough to warrant a crash report but where nobody was injured, also provide information on overall trends. The data include crashes between 2006 and 2010; it is important to look at multiple years of crash data, as significant variation can occur from year to year. In section 3.0, more detailed data will be provided on specific crash factors that are most prevalent in Butte-Silver Bow.



3.0 Methodology

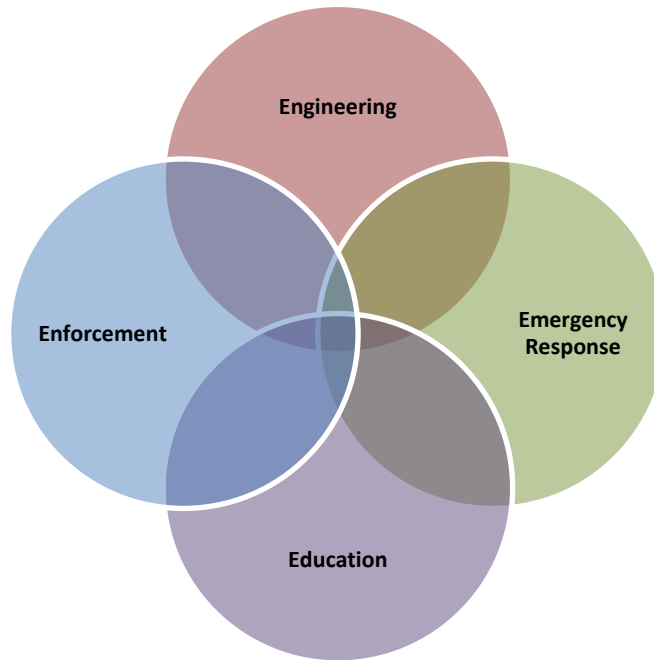
■ 3.1 Planning Process

The first step in developing the Community Transportation Safety Plan was assembling key community safety stakeholders with knowledge of the safety issues and interest in reducing crashes and saving lives in Butte-Silver Bow. The Butte-Silver Bow Local Emergency Planning Committee (LEPC) is a legal entity established to act as a forum at the local level for discussions and a focus for action in matters pertaining to public safety. It provides a representative assembly that acts as an all-hazard advisory board to the Butte-Silver Bow Chief Executive and Council of Commissioners; in addition, the LEPC's purpose is to effectively address all-hazard emergency management related issues toward creating secure and disaster resistant communities. As such, it provides a vital link between citizens, industry, and government.

Individuals were invited to be part of the Transportation Safety Advisory Committee (TSAC) based on their knowledge of and involvement in the 4 Es (engineering, enforcement, education, and emergency medical services) of safety, shown in Figure 3.1. It has been proven that safety strategies are most effective if stakeholders from each of these disciplines are involved in the process. For example, these stakeholders may include representatives from the local medical facility, first responders, Sheriff's office, members of the judicial system, school district, community organizations, chamber of commerce, and transportation planners and engineers.



Figure 3.1 The Four Es of Safety

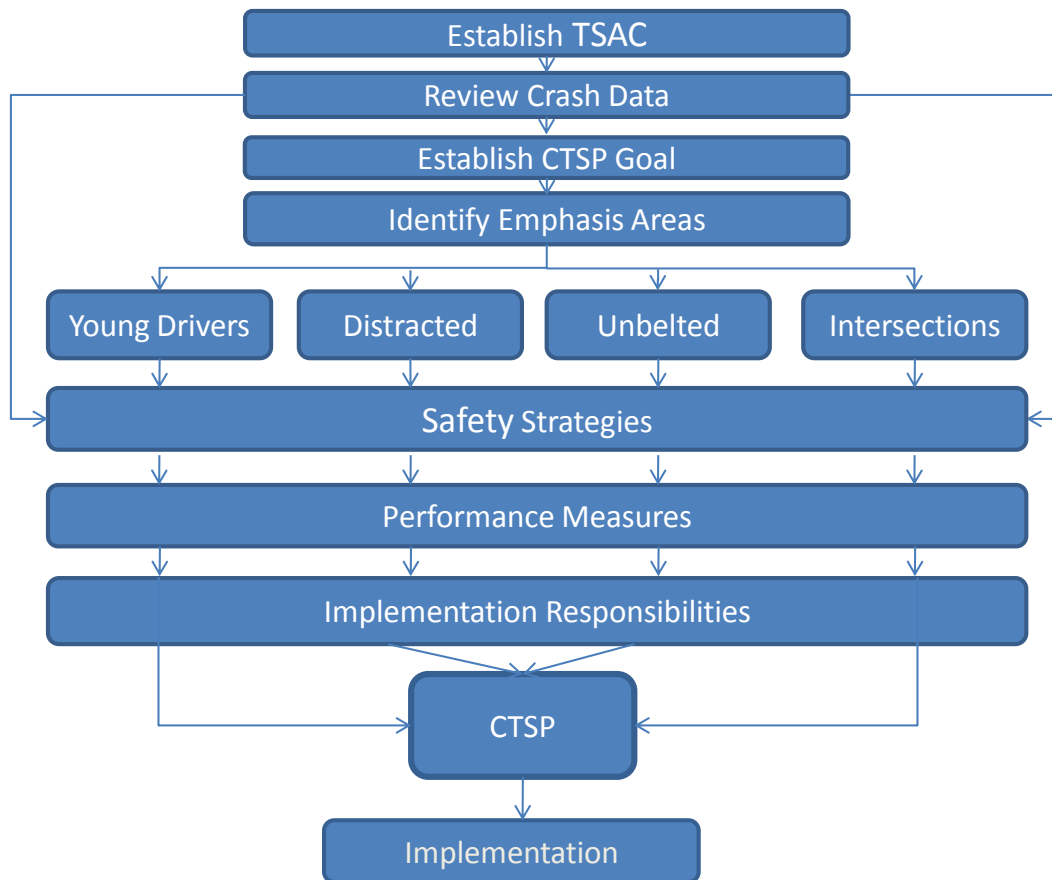


The planning process involved various steps to identify the specific safety issues in the community, develop goals for improving safety, and identify strategies to achieve that goal. The key steps in the planning process, as shown in Figure 3.2, were:

- Establish a Transportation Safety Advisory Committee;
- Review available crash data;
- Develop mission statement and goal;
- Identify Safety Emphasis Areas;
- Review existing strategies and determine new strategies;
- Develop action plans to facilitate implementation; and
- Submit final plan to local governing body for adoption.



Figure 3.2 CTSP Planning Process





Transportation Safety Advisory Committee (TSAC)

The TSAC met five times over the course of the plan development, in addition to participating in the Safety Summit. Table 3.1 shows the key objectives for each of the meetings. The planning process started by ensuring that a wide range of stakeholders were involved in the transportation safety plan development. Members were invited to participate in the TSAC to ensure full representation by the 4Es. The TSAC membership is shown in Appendix A.

MISSION

To provide guidance on the development of the Community Transportation Safety Plan and participate in and provide direction on plan implementation.

The TSAC members discussed their role in the safety planning process and defined what TSAC sought to accomplish. The TSAC members also defined a mission statement to guide their overall efforts in the CTSP development process.

Table 3.1 Objectives for Key Planning Meetings

Meeting	Key Objectives
TSAC Meeting 1 March 21, 2012	<ul style="list-style-type: none"> • Initiate plan development • Identify TSAC members • Conduct initial review of crash data
TSAC Meeting 2 April 16, 2012	<ul style="list-style-type: none"> • Review key safety issues in Butte-Silver Bow • Define TSAC Mission • Select Emphasis Areas for CTSP
TSAC Meeting 3 May 15, 2012	<ul style="list-style-type: none"> • Define safety goal • Inventory current activities relevant to Emphasis Areas • Discuss potential new approaches for strategies
Safety Summit June 19, 2012	<ul style="list-style-type: none"> • Identify safety strategies for emphasis areas
TSAC Meeting 5 August 13, 2012	<ul style="list-style-type: none"> • Review/refine potential safety strategies
TSAC Meeting 5 October 17, 2012	<ul style="list-style-type: none"> • Review and approve plan

TSAC members initially discussed what they perceived to be the biggest safety issues within their community. Then, the group reviewed crash data to identify the factors that were actually causing crashes. It was important that decisions about the areas of focus for the safety plan were supported both by crash data and the members of community that



will be implementing the plan. Given that many crashes occurred on state roads outside “city limits,” and that Butte-Silver Bow is a consolidated government, it was decided early in the planning process to expand the safety plan area to include crashes in all of Silver Bow County.

The committee reviewed fatal and incapacitating injury crash data in Silver Bow County related to key safety factors to determine how and where to focus and prioritize efforts. This helped the group identify safety emphasis areas.

Once those emphasis areas were determined, the group inventoried current safety programs in the community to identify opportunities to build upon them, as well as to identify gaps that could be addressed by future strategies. Next, the TSAC identified potential safety strategies based both on a review of the national literature and what stakeholders felt would be appropriate and effective in their community. Table 3.1 shows the key objectives for the meetings held during plan development.

■ 3.2 Safety Plan Goal

The TSAC discussed various approaches to defining a goal for the CTSP. The overall goal of the CTSP was designed to be specific, measurable and have a timeline. Overall, over this five year period from 2006 to 2010, Butte-Silver Bow experienced an average of 671 total crashes per year, including fatal, incapacitating injury, non-severe injury, and property damage only (PDO) crashes. The group reviewed crash data indicating that 138 fatal and incapacitating injury (severe) crashes occurred in Butte-Silver Bow over five years, as shown in Figure 2.1, which is an average of 28 severe crashes per year. The group decided to pursue a reduction in the annual average number of total crashes by 20 percent within five years. The TSAC would expect that a reduction in overall crashes would reduce proportionally fatal and injury crashes as well.

GOAL

Reduce the five-year average of all crashes by 20 percent by 2018 (from an annual average of 671 crashes to an annual average of 537 crashes).

■ 3.3 Emphasis Areas

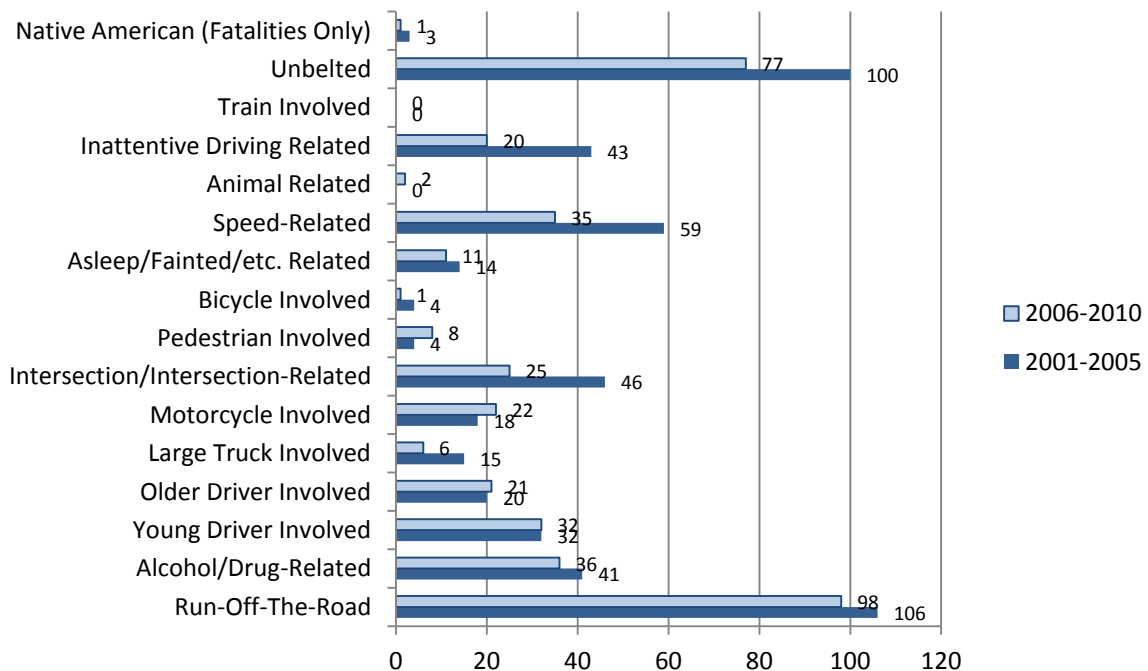
To understand how to most effectively focus resources, it is important to identify what types of crashes predominantly contribute to the community safety problem. *The AASHTO Strategic Highway Safety Plan: A Comprehensive Plan to Substantially Reduce Vehicle-Related Fatalities and Injuries on the Nation’s Highways*, published in 2005, identified 22 safety emphasis areas on a national level. The development of emphasis areas represents a new approach to roadway safety by including populations (e.g., older and younger drivers), crash types (e.g., roadway departure crashes, head-on collisions),



infrastructure/hazards (e.g., intersections, tree and utility pole collisions), behavior (e.g., lack of occupant protection, inattentive/distracted/fatigued, alcohol and/or drug impaired), and modes (e.g., pedestrian, bicycle, motorcycle, heavy trucks). Once the community has a detailed understanding of the types of crashes that are causing the greatest loss of life and severe injury it is possible to target safety strategies to have the greatest safety impact with the resources available.

Montana’s CHSP took the approach of using a data-driven process to define emphasis areas and the same approach was used in this plan. The emphasis areas considered for the Butte-Silver Bow CTSP are shown in Figures 3.3 and 3.4 with crash data shown for 10 years, broken into two five-year increments. It is important to consider crash data for multiple years to accurately capture trends. The crash data show that progress has been made in reducing crashes in most of the emphasis areas in BSB, because the numbers were, for the most part, lower during 2006 to 2010 as compared to 2001 to 2005. However, the group saw that the opportunity existed for improvement in several areas that show relatively higher levels of serious injury crashes (fatal plus incapacitating injury crashes).

Figure 3.3 Potential Safety Emphasis Areas - Fatal and Incapacitating Crashes in Butte-Silver Bow

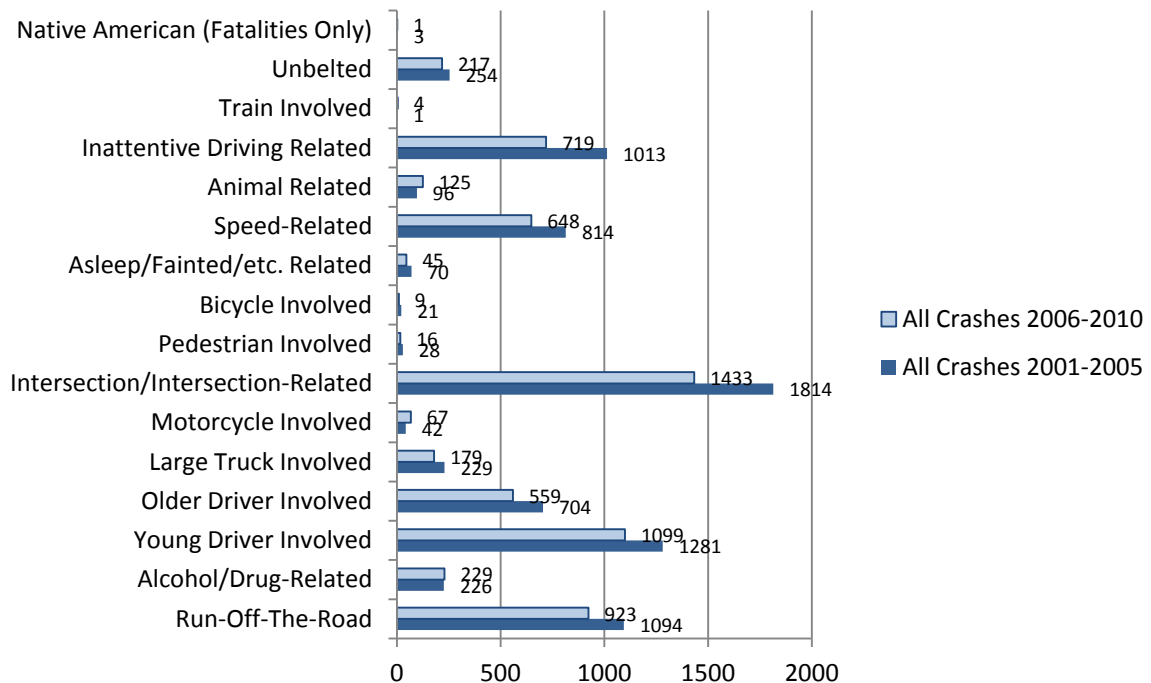


Source: MDT Safety Management System.

Note: Data for Native Americans and unbelted represents persons involved, not number of crashes.



Figure 3.4 Potential Safety Emphasis Areas - All Crashes in Butte-Silver Bow



Source: MDT Safety Management System.

Note: Data for Native Americans and unbelted represents persons involved, not number of crashes.

The group considered a number of criteria to decide which emphasis areas the community could have the greatest impact upon. Factors the group considered included the extent of loss of life and serious injury, availability of data, resources available to address the issue, and feasibility of making an impact in terms of being able to generate stakeholder support.

Following a discussion of the various areas, TSAC members conducted a voting exercise during which participants were given stickers to place next to the emphasis areas they believed were most important. The result of the voting exercise was selection of young driver crashes, occupant protection, intersection crashes, and inattentive/distracted driving. While the largest number of crashes involved vehicles that ran off the road, many of those crashes likely also involved impairment or inattention, and occupant protection would help to reduce the severity of injuries. Additionally, reducing roadway departure crashes can involve very costly infrastructure investments. TSAC members felt there was a greater opportunity at

EMPHASIS AREAS

- Young Drivers
- Occupant Protection
- Intersections
- Distracted/Inattentive Driving



the community level to change behavior in the areas of young drivers, occupant protection, intersections, and inattentive driving.

■ 3.4 Safety Strategies Approach

Safety strategies are targeted efforts to address a specific safety problem. The strategy must be implementable and should be based on defined action steps. The outcome of each strategy will be tracked to ensure efforts are successful in reducing the numbers of fatal and severe injury crashes.

At the Butte-Silver Bow Transportation Safety Summit, Emphasis Area discussion groups reviewed safety strategies proven to work in other states or regions. Participants discussed in depth what they felt the major issues were regarding safe driving related to distraction, younger drivers, occupant protection and intersections and devised strategies tailored to the Butte-Silver Bow community.

Identifying how strategies will be implemented moving forward is a critical part of this plan. At the Summit, participants identified which agency or stakeholder would be most appropriate to be involved in and/or leading each strategy. The groups also decided whether strategies could be initiated or implemented within a short (1-2 years) or medium (3-5 years) timeframe. The anticipated life of the plan is up to five years, after which time crash data should be reviewed and the results of the strategies' implementation fully evaluated. A potential new set of safety emphasis areas and strategies could then be developed based the key crash factors shown in the crash data current at that time.

■ 3.5 Transportation Safety Summit

A central event in development of the CTSP was the Transportation Safety Summit held the evening of June 19, 2012 at the Butte-Silver Bow Civic Center Annex. The goal of this event was to reach out to a wider audience of community members and stakeholders, particularly those with expertise in the four emphasis area topics, and to identify new safety strategies for the emphasis areas to form the basis of the CTSP.

A total of 25 people participated in this three and a half hour transportation safety planning workshop including representatives from Butte-Silver Bow Emergency Management Agency, Butte-Silver Bow Planning and Engineering Departments, Butte-Silver Bow Sheriff's Office, Montana Highway Patrol, MDT, BuckleUp Montana, Montana Technical College, Butte City Court, the Little Basin Creek community, and St. James Health Care (see Appendix B for list of participants). At the Summit, community leaders emphasized the importance of reducing crashes. Cambridge Systematics staff presented information on Butte-Silver Bow crash data and the Community Transportation Safety Planning process to date.



Summit participants were divided into four workgroups over two breakout sessions, based on their area of interest in the four emphasis areas. Each group reviewed safety strategies that have been tried and proven effective in other areas and discussed which of these could be effective at improving safety in Butte-Silver Bow. Participants were also encouraged to generate ideas for new strategies other than those presented that would be appropriate for the Butte-Silver Bow Community. Strategies are discussed detail in each Emphasis Area Section.

■ 3.6 Emphasis Area Teams

Emphasis Area teams will spearhead and support implementation of the strategies identified in this plan. The starting point for forming Emphasis Area teams should be coordination with stakeholder groups that have a responsibility or jurisdictional authority over the strategies being undertaken. Participants in each of the Emphasis Area discussion groups at the Summit are also potential team members. Additional interested stakeholders and those representing groups important to implementation should also be invited to participate.

Each Emphasis Area team will have a Champion who is tasked with acting as chairperson for the group/team and convening regular meetings. The team will review and refine the strategies, define tactics for implementation, and ensure the responsible agencies/individuals lead the implementation of their assigned strategies. It is recommended that these groups initially meet every one to two months to get implementation of the strategies actively underway and to establish a protocol for monitoring progress. Most of the members of the TSAC will likely join one of the four emphasis area teams.

In this plan, each of the core strategy descriptions includes a list of potential stakeholder groups and individuals to act as leaders on implementation. Each Emphasis Area Team should include these groups and validate on an ongoing basis that it has the right membership to lead implementation of the strategies. If an individual can no longer fill the lead role on implementation of a particular strategy, the Emphasis Area Team members should work together to identify a replacement.

Young Driver Emphasis Area Champion: Mark Harrison, BSB School District

Potential Stakeholder Groups for the Young Driver Emphasis Area:

- Driver's Education Instructors
- Butte High School Administration
- State of Montana Office of Public Instruction
- BSB Curriculum Director
- BSB Superintendent of Schools
- Elementary/Middle School Principals



- BSB High School Principal
- City/County Attorney
- BSB Attorneys' Association
- Youth Probation Officer
- Students/Youth Groups
- Teachers
- Others

Occupant Protection Emphasis Area Champion: Captain Gary Becker, Montana Highway Patrol

Potential Stakeholder Groups for the Occupant Protection Emphasis Area:

- TSAC members
- BSB Executive Leadership
- Council of Commissioners
- BSB Law Enforcement Department
- BSB Injury Prevention Specialist
- BuckleUp Montana
- MT Highway Patrol
- Driver's Education Instructors
- MT Tech Health and Wellness Representative
- MDT Highway Traffic Safety Office
- BSB High School and Junior High School Administrators
- City and County Judges
- State Traffic Safety Resource Prosecutor
- Students/Youth Groups
- Chamber of Commerce/Local Businesses
- Others

Distracted/Inattentive Driving Emphasis Area Champion: Jimm Kilmer, BSB Law Enforcement Department

Potential Stakeholder Groups for the Distracted/Inattentive Driving Emphasis Area:

- Department of Public Works
- TSAC members
- BSB High School and Junior High School Administrators



- MT Tech Health and Wellness Representative
- MDT Highway Traffic Safety Office
- BSB Law Enforcement Department
- Cell Phone Retailers
- Chamber of Commerce
- Local Businesses and Employers
- Student Groups and Teens
- BSB Executive Leadership
- State Traffic Safety Resource Prosecutor
- Others

Intersection Safety Emphasis Area Champion: Larry Hunter, Engineer, BSB Public Works Department

Potential Stakeholder Groups for Intersection Safety Emphasis Area:

- Department of Public Works (Sign Inventory Manager and Road Division)
- BSB Law Enforcement Department
- Council of Commissioners
- BSB Information Technology Department
- State Traffic Safety Resource Prosecutor
- MDT Highway Traffic Safety Office
- BSB ADA Coordinator
- AARP/ Area Agency on Aging
- Office of Emergency Management
- Alive@25
- BSB Public Information Officer
- Others



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4.0 Emphasis Area Strategies

■ 4.1 Distracted/Inattentive Driving

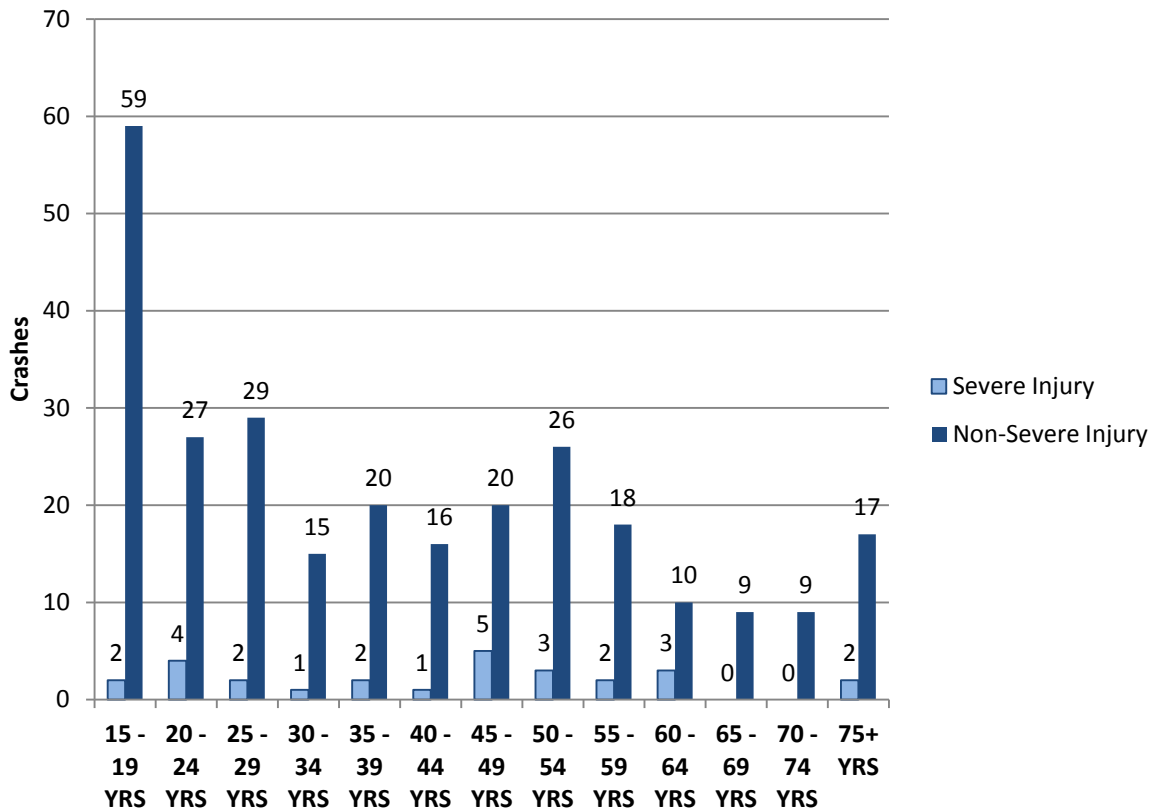
Inattentive driving can involve distraction due to a number of factors including activity outside the vehicle, activity inside the vehicle such as a child or pet, or by use of an electronic device. With the increase in use of electronic devices including cell phones, smart phones, and MP3 players (iPods), recent attention has focused on distraction by these devices. Some states and communities have enacted bans on handheld cell phone use, including Butte-Silver Bow. A number of states have also passed laws prohibiting texting or cell phone use while driving, although none is currently in place in Montana.

While involvement of electronic device use in crashes is known to be underreported, national data show that it is a significant contributing factor. According to the National Highway Transportation Safety Administration (NHTSA), nationally 18 percent of injury crashes in 2010 were reported as involving distracted driving. Drivers who use hand-held devices are four times more likely to get into a crash serious enough to injure themselves, according to the Insurance Institute for Highway Safety. Because text messaging requires visual, manual, and cognitive attention from the driver, it is by far the most alarming distraction. Drivers who text are 23 times more likely to be in a crash, according to USDOT.

From 2006 to 2010, 719 crashes in Butte-Silver Bow involved an inattentive driver. Of those, 20 crashes involved a fatality or incapacitating injury and 149 involved a non-severe injury. As shown in Figure 4.1, six of the 20 severe crashes and 86 of the non-severe injury crashes involved drivers ages 15-24.



Figure 4.1 BSB Inattentive/Distracted Crashes by Age Group 2006-2010



Source: MDT Safety Management System.

Nearly half of all severe (fatal and incapacitating) inattentive/distracted crashes (9 out of 20) occurred on the interstate but 41 percent of all injury crashes (70 out of 169) occurred on local roads, as shown in Table 4.1.



Table 4.1 BSB Inattentive/Distracted Injury Crashes by Roadway Type 2006-2010

Roadway Type	Fatal/ Incapacitating	Non-Severe Injury Crashes	Total Injury Crashes	Roadway Type
Interstate	9	20	29	17%
U.S. Highway	2	46	48	28%
State Highway	1	14	15	9%
County Roads	5	2	7	4%
Local Street	3	67	70	41%
TOTAL	20	149	169	

Source: MDT – Safety Management System.

As shown in Table 4.2, inattentive injury crashes involve more males than females.

Table 4.2 BSB Inattentive/Distracted Injury Crashes by Gender 2006-2010

Drivers By Gender	Fatal/ Incapacitating Crashes	Non-Severe Injury Crashes	Total Injury Crashes	Percent of Total Injury Crashes
Male	16	151	167	55%
Female	11	123	134	45%
TOTAL	27	274	301	

Source: MDT – Safety Management System.

Current Programs and Strategies in BSB

A key step in the process was to identify which safety strategies were in place in BSB and which where there were opportunities either to expand upon current strategies or devise new strategies to address gaps. While the list of current strategies below may not be complete, the programs listed include some of the safety activities underway in the community.

- Butte-Silver Bow has a local ordinance prohibiting use of handheld electronic devices while driving. Violators receive a citation and a \$100 fine. When this policy was initiated, a month of law enforcement stops and warnings was conducted to raise awareness. One challenge is that to change behavior and to support law enforcement writing citations for this offense, the judicial system must be a partner in adjudicating the offense.



- Rumble strips are effective at helping alert drivers if they are leaving the travel lane. The State rumble strip policy is that projects on state-maintained roadways with 4 foot or greater shoulders outside of urban areas, will include rumble strips. Rumble strips are not required in urban areas due to the noise nuisance.
- The state Graduated Drivers License (GDL) requirements limit the number of passengers in vehicles driven by a young driver. For the first six months of a restricted license the driver may have only one unrelated passenger under age 18 unless supervised by a licensed driver age 18 or older. For the second six months the driver may have up to three unrelated passengers under age 18, unless supervised by a licensed driver age 18 or older.
- Various employers have established inattentive driving policies. MDT and BSB have policies against cell phone use while driving. Mining companies have a zero tolerance policy for safety violations such as alcohol use on the job or DUI violations; however, the policy on phone use is not known.

New Emphasis Area Strategy Descriptions

The list below provides detail on potential safety strategies, including action steps that could be undertaken to support the strategies' implementation. Final selection of action steps, however, is the responsibility of each emphasis area team. Resources described are aspects of the strategy that will need staff and financial support and potential sources for funding if needed. However many strategies need only time and the commitment of individual community members and will not require any dedicated funding.

- **Increase general public information and education about cell phone ban and risks of distracted driving.** While there is a handheld cell phone prohibition in BSB, many people do not recognize or acknowledge the extent to which distraction is a severe traffic safety issue.



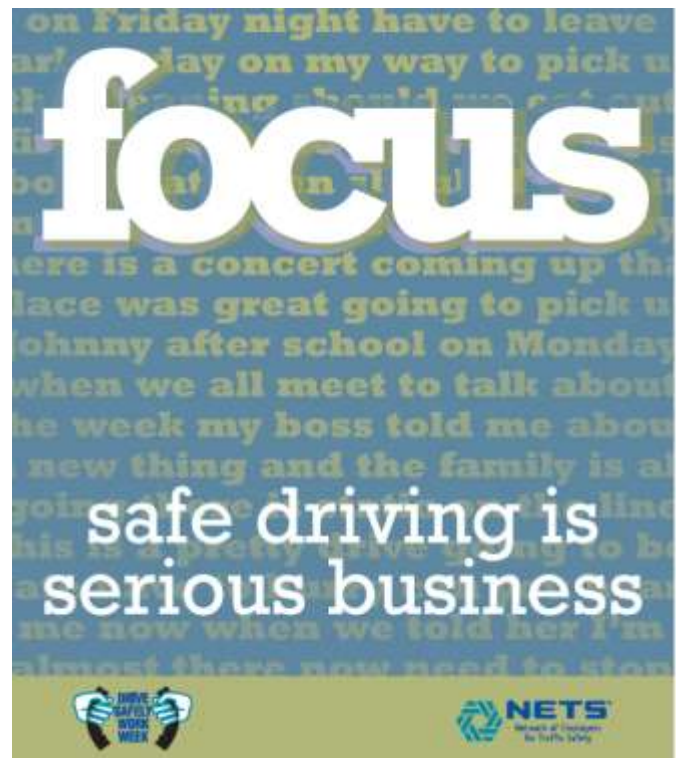
Increased awareness and education is needed to develop of a “culture of safety” in BSB that does not tolerate driving while using electronic devices. A number of strategies can be implemented including installing signage to educate the public, conducting media outreach, conducting public surveys of perceptions and behaviors and using this information to communicate about the issue. A number of resources are available providing educational materials that can be adapted and customized for use in Butte Silver Bow, such as those available on the USDOT’s web site at www.distraction.gov. The Section 402 State and Community Highway Safety Grant Program and new MAP-21 Section 405 National Priority Safety Program funded by NHTSA and administered in Montana by MDT may be able to provide funding, as well as other state, local/private and regional grant programs. Increased communication about the issue is intended to be a low-cost strategy involving improved coordination and simply putting this issue more at the forefront of communication. Media outreach involves only staff time to distribute announcements and attention to increasing discussion of distracted driving. The proposed surveys could be conducted by college



students as part of a class project or by a student organization and could be done inexpensively via free electronic survey methods such as SurveyMonkey and publicized via the media. Efforts to provide simulation of distracted driving for educational purposes can be accomplished by computer software programs for which grant funding could be pursued.

- Continue enforcement of cell phone use while driving ban, in combination with education.** While an ordinance prohibiting hand-held cell phone (electronic device) use is in place, a large number of drivers are still observed using cell phones when driving. Continued enforcement is needed to increase the number of people complying with the ordinance. For the greatest level of effectiveness enforcement should be coordinated with education campaigns in strategy 1 so that people have a reasonable expectation that they might be stopped by law enforcement for distracted driving. Reinforcement of positive behavior can also be an effective approach to changing behavior, particularly with young drivers, by which incentives and awards are used with those who are observed not using distracting devices while driving. This strategy is intended to use existing enforcement resources to continue the emphasis on writing citations for violation of the cell phone ban.

- Conduct outreach to business community on risks of distracted driving/pursue corporate policies.** Businesses typically underestimate the cost of crashes to their business. They can be key partners in developing a culture of safety through establishment of policies against cell phone use while driving on the job, as well as encouraging safe driving behavior at all times. Many resources to support such efforts exist and can be adapted for use in Butte-Silver Bow, such as those from the Network of Employers for Traffic Safety. Materials can be used for organizational policy development, to communicate with employees and to gain buy-in by employees through pledges not to engage in distracted driving. Engagement of the business community through networks such as the Chamber of



Source: Network of Employers for Traffic Safety.

Commerce will be key to such an effort. The support of a large employer in providing an example can motivate other community employers to take on this important issue. This strategy largely involves partnerships, communications, and staff time. While a few direct costs could be involved such as for printing communications materials it is likely that business partners could contribute in-kind services. Funding by National



Highway Traffic Safety Administration through the state Highway Safety Office may be another potential source of funding for some of these activities.

Distracted/Inattentive Safety Performance Measures

Performance measures provide a means of assessing progress toward achieving the overall goal of the Emphasis Area and whether the strategies being undertaken are achieving their intended results. Some overall performance measures can be applied to determine how effective the collective strategies within an emphasis area are performing. In addition, individual performance measures may be appropriate for specific strategies and can be developed by the Emphasis Area team.

Key performance measures to track progress in this emphasis area over time include:

- Number of crashes in Butte-Silver Bow involving distracted/inattentive drivers;
- Number of fatal and incapacitating injury crashes in Butte-Silver Bow involving inattentive driving; and
- Number of citations issued by law enforcement for distracted driving.

Table 4.3 summarizes distracted and inattentive safety strategies, potential action steps, key community stakeholder groups, potential timeframes, and resources for strategy implementation.



Table 4.3 Distracted/Inattentive Safety Strategies

Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
1. Increase general public information and education about cell phone ban and risks of distracted driving.	While there is a handheld cell phone prohibition in BSB, many people do not recognize or acknowledge the extent to which distraction is a severe traffic safety issue. Increased awareness is needed including development of a "culture of safety" in BSB that does not tolerate driving while using electronic devices.	<ul style="list-style-type: none"> • Install signs at BSB entrances about handheld cell phone ban (underway) • Conduct outreach using educational materials from USDOT and other sources • Conduct field survey of people violating ban and report results, potentially as school project, public service activity (e.g., Eagle Scouts) • Conduct public survey of beliefs about distracted driving and release results, potentially in combination with field survey results • Develop letter to the editor in "Reader Speak" • Distribute NHTSA calendar of statewide safety communications campaigns to all safety partners in BSB. Distribute Key Messages to all safety partners during specific campaigns to ensure all communications with media are consistent. • When possible, incorporate traffic safety messages about inattentive driving into BSB Sheriff's daily enforcement press briefing, e.g., note if a serious crash involved inattention or other behavioral factor • Develop education program involving simulation of distraction while driving. Target high school students. 	Department of Public Works TSAC Butte High School & Jr. High MT Tech Cell phone retailers Local insurance agencies MDT Highway Traffic Safety Office Local media	1-3 years	www.distraction.gov Section 402 State and Community Highway Safety Grant Program Students Against Violence Everywhere (SAVE) http://www.nationalsave.org/main/Allstate%20West%20Central.php Texting While Driving Dangers, http://www.benefisfoundation.org/page.aspx?NavID=119



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
2. Continue enforcement of cell phone while driving ban, in combination with education	Butte proactively passed an ordinance prohibiting hand-held cell phone (electronic device) use. A large number of people are still observed using cell phones when driving. Continued enforcement is needed to increase the number of people complying with the ordinance.	<ul style="list-style-type: none"> Continue to enforce cell phone citations and other distracted driving violations Coordinate increased enforcement blitzes with education campaigns in strategy 1. Conduct positive reinforcement program (including awards and incentives) at high school by which students not using cell phones while driving are rewarded. 	BSB Sheriff Cell phone retailers Chamber of Commerce Local businesses BSB High School & Jr. High Administrators Student groups and teens	1 to 2 years	Distracted Driving, http://www.distraction.gov/ MAP-21 Section 402 State and Community Highway Safety Grant Program
3. Conduct outreach to business community on risks of distracted driving/ pursue corporate policies	Businesses underestimate the cost of crashes to their business. They can be key partners in developing a culture of safety through their policies against cell phone use while driving on the job, as well as encouraging safe driving behavior at all times.	<ul style="list-style-type: none"> Customize available materials on the risks of distracted driving for use in BSB. Conduct educational program with Chamber of Commerce on distraction with discussion of costs to employer Potentially initiate effort with large local employer such as Northwest Energy 	BSB Executive Leadership Insurance industry Large local employers Chamber of Commerce	1-2 years	Network of Employers for Traffic Safety, http://trafficsafety.org/ Distracted Driving, http://www.distraction.gov/ National Safety Council, http://www.nsc.org/safety_road/Employer%20Traffic%20Safety/Pages/NationalHome.aspx Cheyenne example: http://www.plancheyenne.org/Distracted%20Driving%20Campaign.html



■ 4.2 Occupant Protection

One of the most effective measures a person can take to prevent injury and death in a crash is to be appropriately restrained through the use of safety belts, rear- or forward-facing child safety seats, or booster seats. NHTSA estimates that lap/shoulder seat belts, when used correctly, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent. Research on the effectiveness of child safety seats has found them to reduce fatal injury by 71 percent for infants (less than 1 year old) and by 54 percent for toddlers (1 to 4 years old) in passenger cars. For infants and toddlers in light trucks the corresponding reductions are 58 percent and 59 percent, respectively. **Despite this evidence, however, the majority of fatally injured people are not properly restrained.**

From 2006 to 2010, 77 severe (fatal and incapacitating) crashes and 217 non-severe injury crashes involved unbelted passengers in Butte-Silver Bow. In severe crashes, all age groups from 15 to 64 had rates of unbelted passengers of more than 40 percent, as shown in Table 4.4. Among non-severe injury crashes unbelted injuries occurred in 25 percent of crashes.



**Table 4.4 BSB Unbelted Injury Crashes by Age
2006-2010**

Injuries By Age	Fatal and Incapacitating Injury Crashes				Non-Severe Injury Crashes			
	Number Unbelted	Number Belted	Percent Unbelted	Percent Belted	Number Unbelted	Number Belted	Percent Unbelted	Percent Belted
0 - 14 Years	8	15	35%	65%	13	40	25%	75%
15 - 19 Years	21	20	51%	49%	44	96	31%	69%
20 - 24 Years	18	17	51%	49%	33	67	33%	67%
25 - 34 Years	16	19	46%	54%	20	80	20%	80%
35 - 44 Years	12	15	44%	56%	22	74	23%	77%
45 - 54 Years	20	16	56%	44%	20	64	24%	76%
55 - 64 Years	12	14	46%	54%	16	47	25%	75%
65+ Years	11	18	38%	62%	5	43	10%	90%
TOTAL	118	134	47%	53%	173	517	25%	75%

Source: MDT - Safety Management System.

As shown in Table 4.5, among those unbelted, 68 percent in severe crashes and 56 percent in non-severe injury crashes were male.

Table 4.5 BSB Safety Belt Use by Gender

Drivers by Gender	Fatal/Incapacitating Injury Crashes			Non-Severe Injury Crashes		
	Unbelted	Belted	Percent Unbelted	Unbelted	Belted	Percent Unbelted
Male	80	85	68%	96	224	56%
Female	38	49	32%	76	291	44%
TOTAL	118	134		172	515	



Current Programs and Strategies in BSB

A key step in the process was to identify which safety strategies were in place in BSB, and which where there were opportunities either to expand upon current strategies or devise new strategies to address gaps. While the list of current strategies below may not be complete, the programs listed include some of the safety activities underway in the community.

- City/county and state employees operating government-owned vehicles must wear safety belts per municipal and state policy.
- Training is provided on child safety seat installation by local trained technicians. Events at which the public can have car seat installation checked are held at health fairs. Public service announcements are broadcast on television about the dangers of parents not buckling up.
- Buckle Up Montana is an advocacy organization that provides information locally on the importance of using safety belts, car seats and booster seats.
- The Montana Highway Patrol (MHP) Seat Belt Enforcer is a crash simulator that gives users the opportunity to experience (with a seat belt on) what an impact of about 5-7 mph would feel like in a vehicle. MDT's "Respect the Cage" program utilizes a Rollover Simulator with acceleration and braking systems that spin a mounted pickup cab and simulate a rollover accident, which is used at special health and safety events to demonstrate the importance of buckling up.
- Teen Driver Safety Week/Red Ribbon Week is held in October. During the month, programs are held to reduce alcohol and drug impaired driving. In the future messages on occupant protection could be included.

New Emphasis Area Strategy Descriptions

The list below provides detail on potential safety strategies, including action steps that could be undertaken to support the strategies' implementation. Final selection of action steps, however, is the responsibility of each emphasis area team. Resources described are aspects of the strategy that will need staff and financial support and potential sources for funding if needed. However, many strategies need only time and the commitment of individual community members and will not require any dedicated funding.

1. **Support enactment of a local primary safety belt law countywide.** Although efforts to pass a statewide primary safety belt law have been unsuccessful to date, a few communities within Montana are considering enactment of their own primary safety belt law to be enforcement within their own jurisdictions by local law enforcement. Initially the TSAC can work with state legislators within Butte-Silver Bow and encourage them to support a statewide law. Should that effort not succeed, options for enactment of a local ordinance can be pursued, building on the experience and research of other communities in Montana who are considering similar actions.



Students, teachers, and law enforcement involved in a high school Battle of the Belts program in Cheyenne, Wyoming. Photo courtesy of Cheyenne Metropolitan Planning Organization.

2. **Conduct increased community-wide public information and education on the importance of safety belt use (including peer-to-peer).** The message to continually utilize safe driving practices is conveyed through numerous means including driver’s education courses, print and broadcast media, and public events. In addition to the traditional sources of information, new and innovative opportunities should be pursued. This can include using the Alive@25 program in the schools, working with MT Tech to spread information throughout the institution, and engaging teens and young drivers to communicate the message to their peers through student organizations and

programs and youth-focused events. These efforts primarily involve increased communication and collaboration through staff resources. There may be a cost for some educational programming or for printing.

3. **Improve coordination between enforcement and prosecution.** Enforcement of Montana’s secondary occupant protection law as well as other traffic regulations is effective only if the violator knows he or she will ultimately be prosecuted for the offense. Enforcement is only partially effective if there is no follow through on prosecution and ultimately no threat of punishment. Not all judicial officials uphold seat belt violation citations and this is particularly important if the existing secondary occupant protection law is to have any effect as an incentive to use safety belts. This strategy involves only the staff resources for increased communication and collaboration.



Performance Measures

For the Occupant Protection Emphasis Area, the following performance measures should be considered for tracking by the Emphasis Area team:

- Annual number of unbelted/unrestrained fatalities within Butte-Silver Bow;
- Annual number of unbelted/unrestrained severe injuries;



- Observed safety belt utilization by Butte-Silver Bow drivers and front seat occupants; and
- Number of annual safety belt citations issued.

Table 4.6 summarizes Occupant Protection safety strategies, potential action steps, key community stakeholder groups, potential timeframes, and resources for strategy implementation.



Table 4.6 Occupant Protection Safety Strategies

Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
1. Support enactment of a local primary safety belt law countywide	Safety belt use has been proven to be one of the most effective countermeasures to save lives and reduce injury. A primary belt law has been shown to result in increased use of safety belts. Until a statewide primary belt law is enacted in Montana, a local law can increase belt use in BSB.	<ul style="list-style-type: none"> • TSAC to conduct outreach to state legislators to express support for state primary safety belt law in upcoming legislative sessions. • If statewide belt law does not pass in next legislative session, research legal requirements to establish a local ordinance (can include outreach to other Montana communities who are also considering a local law). 	BSB Executive Leadership TSAC Council of Commissioners BSB Law Enforcement Department BSB Injury Prevention Specialist Buckle Up MT	1-3 years	Seattle, WA municipal code: http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?d=CODE&s1=11.58.198.snum.&Sect5=COD E1&Sect6=HITOFF&l=20&p=1&u=/~public/code1.htm&r=1&f=G Examples communities with local ordinances: Cottleville, MO; Weldon Springs, MO; Avon, CO Helena draft ordinance



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
<p>2. Conduct increased community-wide public information and education on the importance of safety belt use, including peer-to-peer</p>	<p>Promotion of safe behavior should be constant theme that is continually reinforced to assure it becomes part of the overall culture. All options should be considered as potential vehicles for conveying safety messages and keeping the public aware of the need to always wear safety belts when in a vehicle. Youth should be one target audience as that age group has lower overall safety belt use.</p>	<ul style="list-style-type: none"> • Continue emphasis in driver's education course. • Offer Alive@25 at Montana Tech and Butte High School • Engage MT Tech and utilize their organizational structure and communications vehicles in the promotion of transportation safety • Potentially hold a "Seatbelt Award" event (given to someone who has survived a crash due to wearing of a safety belt) at MT Tech; engage college radio station and newspaper to promote/ support • Encourage safety belt use at senior centers and AARP/CarFit events • Seek increased publicity for safety belt enforcement campaigns <ul style="list-style-type: none"> ○ Distribute NHTSA calendar of enforcement and outreach campaigns and coordinate publicity among safety partners ○ Seek to integrate messages into Sheriff's daily media briefings as possible 	<p>Buckle UP MT MT Highway Patrol Driver's Education instructors MT Tech – Health and Wellness representative MDT Highway Safety Office News media (newspapers, TV, radio) Senior Centers/Agency on Aging Directors AARP BSB Sheriff Junior High School Administrators BSB High School Administrators Student groups and teens Teachers</p>	<p>1-5 years, ongoing</p>	<p>Alive@25 http://www.mdt.mt.gov/safety/docs/alive-at-25-poster.pdf Buckle Up MT http://buckleup.mt.gov/ http://www.mdt.mt.gov/safety/occupant.shtml</p>



Butte-Silver Bow Community Transportation Safety Plan

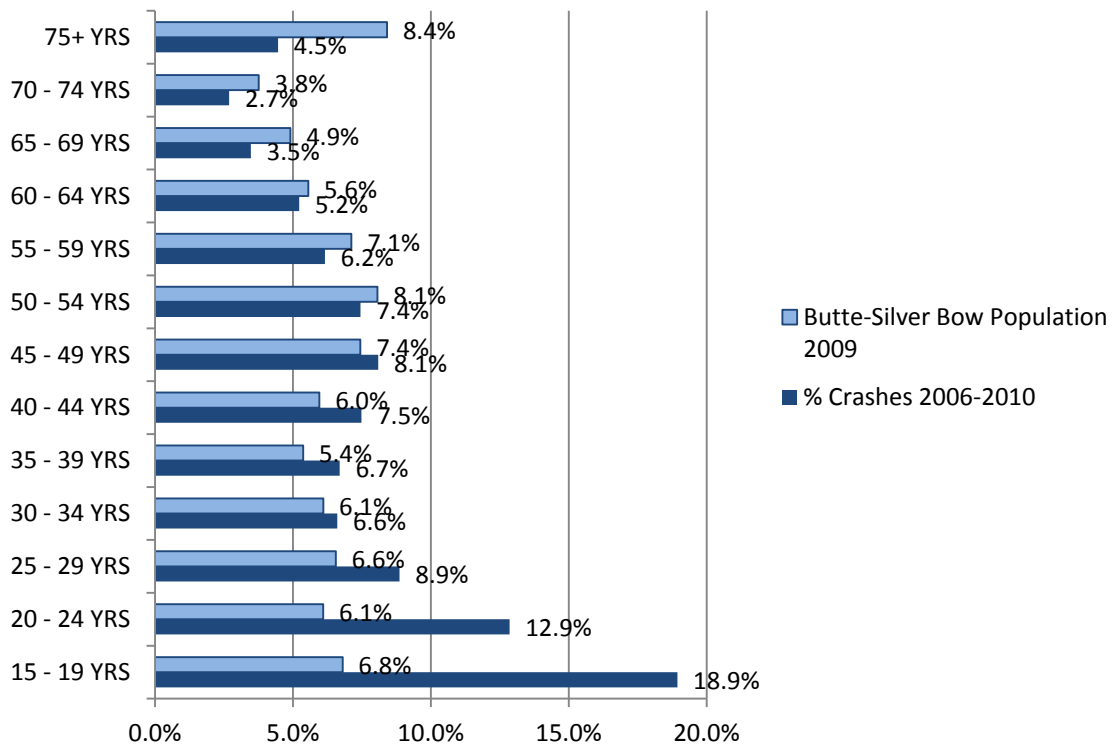
Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
<p>3. Improve coordination between enforcement and prosecution</p>	<p>Enforcement of safety laws must be accompanied by effective prosecution in order to be effective in changing behavior. Lenient prosecution by the courts creates a more casual regard for the law and greater likelihood of non-compliance.</p>	<ul style="list-style-type: none"> Initiate a discussion between local judges and law enforcement on the traffic safety problem and the impacts of dismissing safety belt tickets. Coordinate with State Traffic Safety Resource Prosecutor and utilize her services within BSB to support this meeting/discussion. Encourage continued enforcement of secondary safety belt law 	<ul style="list-style-type: none"> Butte Silver Bow Law Enforcement Department City and County Judges State Traffic Safety Resource Prosecutor 	<p>1-3 years</p>	<p>MT Traffic Safety Resource Prosecutor http://www.mdt.mt.gov/tsrp/</p>



4.3 Young Driver Crashes

Young drivers are more likely to be involved in a motor vehicle crash than any other age group. This is the case whether crashes are measured per population, per licensed driver, or per mile traveled. This greater crash involvement also results in additional injury risks because younger drivers tend to carry the largest number of passengers, who are typically other teens. Furthermore, this group, drivers and passengers alike, is least likely to wear safety belts, therefore not utilizing the best protection against injury in the event of a crash. Young drivers can also pose a threat to other road users. A recent study by the American Automobile Association (2006) showed that the majority of fatalities in crashes involving 15- to 17-year-old drivers are to persons other than the teen driver, including occupants of other vehicles and non-motorists. As a consequence of these factors, motor vehicle crashes are the leading cause of death among teens in the United States. Figure 4.2 shows that younger drivers are overrepresented in crashes; for example, while just 6.8 percent of the BSB population is age 15 to 19, 18.9 percent of crashes involved drivers in this age group. As a further indication of the severity of this problem, as shown in Table 4.7, nearly 30 percent of fatal/incapacitating crashes among drivers ages 18-24 in Butte-Silver Bow from 2006 to 2010 involved alcohol or drugs.

Figure 4.2 BSB Driver Crash Involvement by Age vs. Population 2006-2010



Source: MDT Safety Management System, U.S. Census 2009 Estimate



**Table 4.7 BSB Alcohol Involvement for Young Drivers
2006-2010**

	Young Drivers By Sobriety	16-17 YO Driver	18-20 YO Driver	21-24 YO Driver	Total of all Injury Crashes
Fatal/ Incapacitating Crashes	No alcohol or drugs	13	20	10	43
	Yes alcohol/ drugs	2	8	4	14
	Total	15	28	14	57
	Percent severe crashes involving alcohol/ drugs	13%	29%	29%	25%
Non-severe Injury Crashes	No alcohol or drugs	120	168	106	394
	Yes alcohol and drugs	6	9	16	31
	Total	126	177	122	425
	Percent non-severe injury involving alcohol	5%	5%	13%	7%
	Percent of injury crashes involving alcohol	6%	8%	15%	9%



Current Strategies and Programs in BSB

The following safety strategies were identified as currently being in place in BSB. While the list below may not be complete, the programs listed below provide an indication of the types of safety activities currently underway in the community.

- BSB Health Department programs include Responsible Alcohol Sales and Service (RASS) training (required by state statute) and Minor In Possession (of alcohol) training.
- School Resource Officers help develop curriculum for classes addressing alcohol and MIP issues jointly funded by the Sheriff's Office and the School District.
- Teens Advocating A Safe Community is an educational program conducted in middle school. The new Safe Routes to School/Safe Journeys Home Curriculum for teachers (begun in 2011) provides K-8 education for students in navigating traffic on foot and by bicycle.
- Alive@25 provides monthly traffic safety training delivered by MT Highway Patrol officers to participants who are directed by the courts to attend (this program is not limited to only participants directed by the courts). Buckle Up MT Coalition coordinators give presentations on safety belt use.
- Mariah's Challenge is a pledge that young people under 21 not drink and never get in a car with somebody who has been drinking, and that people over 21 not drink and drive. If high school students are successful, they are eligible for a college scholarship.
- During freshman and sophomore years in high school traffic safety education is included in health classes. Before prom, there is an all-day safety program provided during which participants sign a commitment to buckle up.
- High school graduation materials include "Click It, Don't Risk It" information. Efforts are being made to include alcohol risk information in the driver's education curriculum.
- Teen Driver Safety Week/Red Ribbon Week is held in October, which includes programs to reduce alcohol and drug impaired driving. Parents' game nights are held at school during which parents are educated about key issues and children are entertained separately.
- Montana Tech University requires education and a test on the risks of alcohol in order to register. It is uncertain if driving issues are included in program.
- State Farm Insurance has developed a DVD on safe driving that is available to young drivers.



New Emphasis Area Strategy Descriptions

The list below provides detail on potential safety strategies, including action steps that could be undertaken to support the strategies' implementation. Final selection of action steps, however, is the responsibility of each emphasis area team. Resources described are aspects of the strategy that will need staff and financial support and potential sources for funding if needed. However, many strategies need only time and the commitment of individual community members and will not require any dedicated funding.

1. **Parent participation in driver's education and Graduated Drivers Licensing (GDL).**

Participation and ongoing support from parents and guardians to reinforce the safety messages conveyed in driver's education programs and through the GDL program can act as a strong incentive for young drivers to practice safe driving. One aspect of this is to require a parent or guardian to attend the first GDL or driver's education class. This not only sends a message to the young driver that a adult authority understands the importance of this training and safe driving, but it also helps educate the adult about safe driving issues, enabling the adult to continue to encourage safe driving practices outside of the classroom. This strategy is designed to increase collaboration and involvement with parents and would not include any additional costs.

Graduated Driver License

Step 1 – Instruction Permit/Learner License
Requires 6 months and 50 hours of supervised driving practice with parent/guardian - 10 hours must be at night
Seatbelts required

Step 2 – GDL Restricted License
Limits teen passengers and night time driving
Seatbelts required

Step 3 – Full Privilege Driver License
After one year of GDL restrictions or age 18

What is the Parent Role in Teen Driving?

1. Enroll your teen in Montana Driver Education
2. Know Montana's GDL laws
3. Supervise teen driving
4. Set family driving rules and limits
5. Impose consequences for violations

2. **Incorporate education on traffic safety into existing k-8 school classes and programs.** Presentation of messages in support of transportation safety should begin early in life to establish a culture of safety that underlies all aspects of behavior as a child matures into a teen and adult. Safety habits and practices, such as the use of a safety belt, should be taught at an early age and continually reinforced so that these practices become internalized and second-nature to the individual. These practices can be taught and encouraged through a variety of programs, many of which already exist in the schools. To further reinforce the message, information needs to be conveyed to parents and guardians so they can provide examples of safe behavior to their children. This strategy would involve reallocating some educational time to cover the “life skills” of traffic safety including safe pedestrian and bicycle behavior, how to be a safe passenger in a vehicle and to prepare students for the future responsibility and privilege of driving in the future; this should not involve additional costs.

3. **Peer-to-peer high school safety education program.** Peer influence is one of the strongest influences on youth behavior. While adults, teachers, parents and guardians play an important role in shaping behavior, young people tend to adhere more closely to the behavior of their peers. While risky behavior may be more widespread in



adolescence, it does not have to be the norm young people adopt as a standard. Various structured opportunities are available at the high school level that can establish a standard of safe behavior among peers that is carried over into driving. This strategy involves raising the profile of safety through working with an existing or new youth group. Depending on how a safety campaign is developed, some resources may be needed for printing costs or other materials. The program can be scaled depending on resources available. Additionally grant funding may be available from the state Highway Safety Office or other sources of grants for teen safety programs.

4. **Peer youth court for minor infractions.** In conjunction with the preceding strategy, youth courts provide a means of establishing safe driving standards among peers. Peer reinforcement of safe driving practices and behavior can be one of the strongest incentives for young people to avoid risky driving behavior. Youth court is a voluntary program that would provide an alternative to conventional traffic courts, providing a means for young people to work with their peers to enforce traffic laws and impose penalties that are appropriate for the offence without imposing punishments which may have a lasting impact on the youngster's driving record. Establishment of a youth court would primarily involve use of existing staff resources to set up and manage this new process.

Performance Measures

For the Young Driver Emphasis Area, the following performance measures should be considered for tracking by the Emphasis Area team:

- Annual number of crashes involving young drivers (age 16-24);
- Annual number of young drivers involved severe injury crashes;
- Annual number of young driver fatalities within Butte-Silver Bow; and
- Annual number of young driver severe injuries.

Table 4.8 summarizes Younger Driver safety strategies, potential action steps, key community stakeholder groups, potential timeframes, and resources for strategy implementation.



Table 4.8 Young Driver Safety Strategies

Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
1. Parent participation in driver's education and Graduated Driver Licensing (GDL)	In 2012, it became a requirement that parents attend 1st GDL meeting. Parental/Guardian participation in driver training and knowledge of GDL requirements will provide further support and reinforcement for young drivers learning the importance of safe driving practices.	<ul style="list-style-type: none"> Continue emphasis on safety in existing curriculum with particular emphasis on impaired driving and safety belts as appropriate. Ensure safety information is presented in parent meeting. Determine extent of current parent participation in initial GDL meetings. If parent/guardian does not attend parent meeting at initiation of driver's ed. Training, student's participation in class will be discontinued and registration fee will be forfeited. As of 2012, meeting is required at beginning of driver education class under Montana Administrative Rule. Promote AAA Keys2Drive to program for parents, which provides materials to support parents' role while children are novice drivers. 	<p>Driver's Education Instructor(s)</p> <p>Butte High School Administration</p> <p>Office of Public Instruction (OPI)</p> <p>BSB Curriculum Director</p>	1 year	<p>The KEYS Parent and Teen Homework Assignments are included in the Montana Traffic Education Curriculum and the Montana GDL web resources for parents</p> <p>http://teendriving.aaa.com/MT</p> <p>http://www.underyourinfluence.org/</p> <p>http://www.opi.mt.gov/Programs/DriverEd/Index.html#gpm1_6</p>



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
<p>2. Incorporate education on traffic safety into existing pre-H.S. classes/program(s)</p>	<p>Encouraging a culture of safety should begin as early in childhood as possible to sustain safe behavior/safe practices into adolescence and adulthood. Instruction on safe behavior and safe driving practices (focusing on distraction, impairment, and safety belt use) should begin in grade school. Understanding of safe behavior by children can also influence behavior by other household members. Safe Journeys Home is a curriculum on traffic management for K-5 and middle school. SJH is contracted through the Montana SRTS program.</p>	<ul style="list-style-type: none"> • Include parents in education program • Review Safe Journeys Home curriculum and incorporate appropriate transportation safety messages as appropriate. • Sustain SJH program through Train the Trainers training program every two years. • Introduce into junior high school • Pursue alternative venues such as community youth organizations, i.e., YMCA, after school groups 	<p>BSB Superintendent of Schools</p> <p>Elementary/Middle School Principals, School Administrators; Teachers trained in Safe Journeys Home curriculum</p> <p>BSB Curriculum Director</p>	<p>1-3 years</p>	<p>National Organization for Youth Safety – social norming programs: www.noys.org</p>



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
<p>3. Peer-to-Peer high school safety education program</p>	<p>Peer influence can be the most effective influence of behavior during adolescence, particularly if safe driving behavior is conveyed as the norm for most young drivers.</p>	<ul style="list-style-type: none"> • Establish peer-to-peer safety program in Butte High School <ul style="list-style-type: none"> ○ Identify existing student group (e.g., club or student government) to lead the initiative or establish new group ○ Establish peer-to-peer education messages, events, communications methods (e.g., social media) ○ Sustain the program by planning activities through school year 	<p>BSB Superintendent of Schools BSB High School Principal, BSB School Administrators, Parents, Teachers, Teen Groups and Students</p>	<p>1-3 years</p>	<p>Battle of the Belts – Cheyenne http://www.plancheyenne.org/SafetyPlan/Website%20Stuff/Young%20Drivers/Battle%20of%20the%20Belts%20Summary.pdf Impact Teen Driver http://www.impactteendrivers.org/ National Organization for Youth Safety – social norming programs: www.noys.org Teen Distracted Driving Community Engagement Guide http://digital.turnpage.com/issue/45249 Teen in the Driver Seat program (currently underway in Texas) http://www.t-driver.com MDT research project being undertaken by MSU. Program and guidebook are under development.</p>



Butte-Silver Bow Community Transportation Safety Plan

Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
<p>4. Peer youth court for minor infractions</p>	<p>Peer influence can be the most effective influence of behavior during adolescence. Peer youth court is a voluntary program that assists teenage offenders, ages 14-17, in assuming responsibility for their behavior through involvement in the judicial process and service in the community. First time offenders are brought before a jury of their peers where they are sentenced to constructive service, gaining an understanding of their role in society.</p>	<ul style="list-style-type: none"> Reach out to Lawrence County Teen Court (South Dakota) to research procedures currently in place Coordinate with BSB County Attorney and court system (City and County) Determine what legal issues need to be addressed (assuming youth court would not hear criminal or felony violations) Recruit volunteer attorneys who can act as Judge Recruit youth volunteers who serve as prosecuting attorney, defense attorney Establish protocols and schedules Identify appropriate community service activities to be performed as sentences Identify and coordinate with appropriate support programs (chemical dependency counseling, etc.) 	<p>Mediator City/County Attorney BSB attorneys association Youth Probation Office</p>	<p>1-2 years</p>	<p>http://www.lawrencecountyteencourt.com/about_teencourt.php</p>



■ 4.4 Intersections

Intersections commonly are locations with a large number of crashes as these are the locations where vehicles traveling in different directions have the most potential for conflict. Intersection crashes are impacted by driving behavior such as obeying red lights, judging gaps properly when making turns, traveling at appropriate speeds, and making proper driving maneuvers around other vehicles. Visibility at intersections is important to ensure drivers can see the intersection as they approach it, as well as clearly see signals and signs (e.g., vegetation around intersections must be cleared regularly and parking must be an adequate distance from intersection). It is important that pavement markings be visible and understandable so drivers know what is expected of them and do not need to make last-minute maneuvers. For example, can drivers tell in advance that the left lane is left turn only? Is it clear when people drive through an intersection which lane they are entering on the other side of the intersection?

Strategies to address intersection safety include signage and pavement markings, provision of dedicated turn lanes, providing information on how vehicles should flow through the intersection (e.g., signage on the existence of dedicated turn lanes), use of appropriate signal type, and proper signal phase timing to ensure users have enough time to make a decision to stop if the light is in the process of changing. While reconstruction of an intersection may be needed in some cases, this is a costly undertaking. Many beneficial safety improvements are low-cost, such as signs, pavement markings and signal retiming. Additionally, enforcement plays a role in ensuring drivers adhere to signs and signals.

From 2006 to 2010, there were 1,433 intersection crashes in Butte-Silver Bow. Of these, 25 involved a fatality or incapacitating injury and 266 involved a non-severe injury. As shown in Table 4.9, more than one third of severe injury crashes occurred at intersections without a signal or stop sign. Another third of severe crashes occurred at intersections with a stop sign.



**Table 4.9 BSB Intersection Injury Crashes by Traffic Control
2006-2010**

Crashes By Traffic Controls	Severe Injury Crashes	Percent Severe Injury	Non-Severe Injury	Percent Non-Severe Injury
NONE	9	36%	90	17%
TRAFFIC SIGNALS	3	12%	95	18%
SIGNALS NOT WORKING	0	0%	0	0%
SIGNALS FLASHING	1	4%	4	1%
FLASHER	0	0%	1	0%
FLASHER NOT WORKING	0	0%	0	0%
STOP SIGN	9	36%	70	13%
YIELD SIGN	0	0%	2	0%
RAILROAD SIGNAL	0	0%	0	0%
RAILROAD SIGNALS NOT WORKING	0	0%	0	0%
RAILROAD GATES	0	0%	0	0%
RAILROAD GATES NOT WORKING	0	0%	0	0%
RR X-BUCK	0	0%	0	0%
SIGNS & PAVEMENT MARKINGS	0	0%	0	0%
TRAFFIC SIGNS	3	12%	4	1%
PAVEMENT MARKINGS	0	0%	0	0%
TRAFFIC CONTROL DOWN/MISSING	0	0%	0	0%
NO PASSING ZONE	0	0%	0	0%
NO SIGNS, NO PAVEMENT MARKINGS	0	0%	0	0%
OTHER	0	0%	266	50%
TOTAL	25		532	

Source: MDT - Safety Management System.

As shown in Table 4.10, the more significant intersection crash factors are: failure to yield, inattentive driving, careless driving, and speeding (exceeding the speed limit and driving too fast for conditions).



**Table 4.10 BSB Intersection Injury Crashes by Driver Contributing Circumstances
2006-2010**

Contributing Circumstances Involving Driver	Severe Injury Crashes	Percent Severe Injury Crashes	Non-Severe Injury Crashes	Percent Non-Severe Injury Crashes
NONE	16	31%	253	38%
OTHER*(DRIVER)	1	2%	11	2%
DRUGS	0	0%	1	0%
ALCOHOL	2	4%	17	3%
FAILED TO YIELD RIGHT-OF-WAY	9	17%	102	15%
DISREGARDED TRAFFIC SIGNS	3	6%	46	7%
EXCEEDED STATED SPEED LIMIT	2	4%	2	0%
TOO FAST FOR CONDITIONS	3	6%	27	4%
MADE AN IMPROPER TURN	1	2%	9	1%
WRONG SIDE OR WRONG WAY	0	0%	2	0%
FOLLOWED TOO CLOSELY	0	0%	14	2%
IMPROPER LANE CHANGE	0	0%	3	0%
IMPROPER BACKING OPERATION	0	0%	1	0%
IMPROPER PASSING	0	0%	2	0%
IMPROPER SIGNALS	0	0%	0	0%
IMPROPER PARKING	0	0%	0	0%
FELL ASLEEP, FAINTED ETC.	3	6%	0	0%
LIC. REST. NOT COMPLIED	1	2%	4	1%
INATTENTIVE DRIVING	4	8%	97	14%
CELL PHONE	0	0%	2	0%
CARELESS DRIVING	7	13%	78	12%
NOT STATED	0	0%	0	0%
TOTAL	52		671	

Source: MDT - Safety Management System.

As shown in Table 4.11, the vast majority of intersection injury crashes occurred during clear or cloudy weather. Snow and ice are not major factors in injury crashes at intersections.



**Table 4.11 BSB Intersection Injury Crashes by Weather
2006-2010**

Crashes By Weather Condition	Severe Injury Crashes	Percent Severe Injury	Non-Severe Injury	Percent Non-Severe Injury
FOG,SMOG,SMOKE	0	0%	3	1%
SLEET,HAIL,FREEZING RAIN,DRIZZLE	1	4%	4	2%
BLOWING SNOW	1	4%	4	2%
SEVERE CROSSWINDS	0	0%	1	0%
CLEAR	14	56%	168	63%
CLOUDY	6	24%	73	27%
RAIN	2	8%	7	3%
SNOW	1	4%	6	2%
BLOWING SOIL	0	0%	0	0%
NOT STATED	0	0%	0	0%
TOTAL	25		266	

Source: MDT - Safety Management System.

Current Strategies and Programs in BSB

The following safety strategies were identified as currently being in place in BSB. While the list below may not be complete, the programs listed below provide an indication of the types of safety activities currently underway in the community.

- An intersection safety analysis was conducted as part of the Butte-Silver Bow 2005 Transportation Safety Plan. Butte-Silver Bow has been further evaluating and making improvements to defined intersections locations as possible given funding constraints.
- Traffic enforcement at intersections is conducted daily. Officers periodically conduct enforcement at specific intersections with stop signs.
- On a regular basis, Montana Highway Patrol reviews high crash locations for increased enforcement. Additionally, cities are invited to submit problem locations to MDT for review and funding consideration.
- A flashing light is being added to the high school pedestrian crossing . The School District is currently evaluating the use of crossing guards.



New Emphasis Area Strategy Descriptions

The list below provides detail on potential safety strategies, including action steps that could be undertaken to support the strategies' implementation. Final selection of action steps, however, is the responsibility of each emphasis area team. Resources described are aspects of the strategy that will need staff and financial support and potential sources for funding if needed. However, many strategies need only time and the commitment of individual community members and will not require any dedicated funding.

1. **Conduct review of stop signs along key corridors.** Signage and pavement markings provide information to drivers on how to move safely through an intersection. When using stop signs it is important for the driver to know if all four directions of traffic have stop signs or if one of the roadways is not stop controlled. For improved safety it is ideal to have consistency along corridors in terms of the use of 2 or 4-way stop signs and for all signs to be marked. Butte-Silver Bow has a sign inventory which can be reviewed to identify needs for additional markings as to whether signs are 4 or 2-way, particularly in locations with lower visibility. Signing is considered a viable, low-cost engineering strategy.



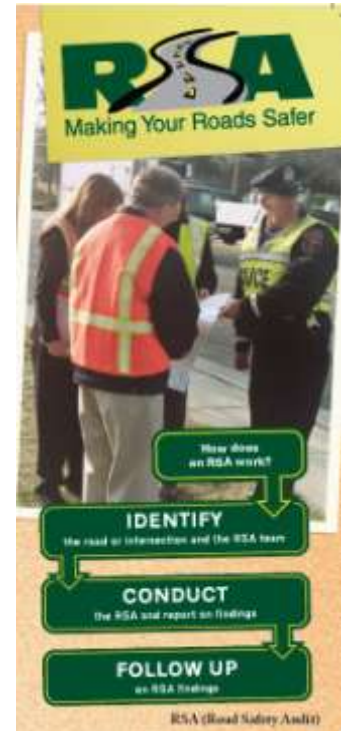
2. **Improve process by which the public can report maintenance and safety issues.** While the public works department's role is to continually maintain pavement markings, signs and signals, it can be challenging to stay on top of all maintenance needs on the system on a daily basis. The public can provide a useful role, serving as eyes



and ears from a user perspective in terms of locations where maintenance is needed or where additional safety improvements would improve roadway system clarity and safety for drivers. Simple upgrades to the public works section of the web site can help the public understand the process for handling request for upgrades, how requests are prioritized, and the timeframe for improvements with consideration of funding cycles and the construction season. Ideally a mechanism for responding to such requests can also be integrated. In this way the public can contribute to more comprehensive knowledge of issues from the user perspective while gaining a better understanding of the process for implementing improvements. The cost for this effort is the staff time to develop and implement an improved process.



3. **Develop Road Safety Audit Program.** Roadways/intersections are designed and built to engineering specifications, but traffic patterns and volumes change over time, potentially creating safety issues. Road Safety Audits (RSAs), which have been proven highly effective, involve a multidisciplinary team evaluating locations for safety considerations from multiple perspectives. An outcome of the audits is identification of a range of potential safety improvements, usually with many low-cost safety improvements that can be implemented quickly. Resources exist to provide free training for local public works and planning staff. Such training will also increase the general level of knowledge of staff about best practices regarding road safety and potential improvements. Butte-Silver Bow should seek to gain in-house RSA knowledge and then implement a program of conducting a defined number of RSAs each year, particularly at intersections defined as having safety issues and also at locations where maintenance is planned and where low-cost improvements can be integrated as part of the maintenance efforts. RSAs will take additional staff time.



4. **Continue process for integrating safety considerations into ongoing maintenance and construction program.** Every time a maintenance project is performed, there is opportunity to integrate safety elements into the project, often at a much lower cost



than if a dedicated safety project were undertaken. Over time, if maintenance projects involve continuous safety upgrades, the result will be an entire system with improved safety elements. This can often be accomplished using existing resources. The Department of Public Works has a process for conducting a review of safety during the planning of maintenance projects, which should be continued. Additionally, staff should seek to use new resources that define the expected impact of various safety improvements such as the free, online Crash Modification Factors Clearinghouse.

5. **Enhance process for maintaining vision clearance at intersections.** Intersections are designed to provide a clear line of sight for drivers navigating through them. Zoning codes require that vegetation near intersections be cleared periodically to maintain vision clearance. Private property owners, however, may not be aware of regulations governing vegetation clearance near intersections. Information on these requirements should be enhanced so property owners will be vigilant about vegetation clearance. For vegetation in the public way, residents should be encouraged to report issues to



DPW. Snow clearance can also be an issue when residents plow driveways, depositing snow in roadway travel lanes or close to intersections such that visibility is blocked. BSB should aggressively enforce violations. This strategy involves staff resources to enhance the process and increase communications with residents.

6. **Establish policy for consideration of roundabouts when intersections undergo rehabilitation or construction.** Roundabouts have been identified as one of the most effective ways to improve safety at certain types of intersections. Roundabouts reduce



traffic conflicts (e.g., left turns) that are frequent causes of crashes at traditional intersections. Unlike a traffic circle or a rotary, a roundabout's incoming traffic yields to the circulating traffic. BSB should establish a policy that consideration of a roundabout alternative is a requirement of all intersection analyses, including those privately

funded by special increment financing. Construction of roundabouts has been officially encouraged by the Montana Legislature. Roundabouts may cost more than traditional intersections; however, new construction may be privately funded.

7. **Conduct ongoing public education on good driving practices.** After people obtain their driver's license no continuing education is required to keep up with new laws or to maintain knowledge of good driving skills and practices. If certain types of driver violations are commonly observed in the community, it can be helpful to remind residents of "rules of the road" so that their driving is as safe as possible and they stay current with changes in laws. BSB can use various ways of communicating with residents on tips for good driving such as via the media and the Butte-Silver Bow web site. This strategy primarily involves staff time to conduct increased communications with the public.



8. **Conduct speed, red-light running and stop sign enforcement at targeted locations.** A primary way to ensure that drivers obey laws is to increase enforcement and for them to feel that they will be cited for violations. Increased enforcement at key locations will increase drivers' compliance with laws so they will be less likely to approach/traverse intersections at high speeds or disobey signals and stop signs. This strategy involves deploying existing enforcement resources to strategically target key locations and key violations.



Intersection Safety Performance Measures

Recommended Performance Measures for Intersections include:

- All crashes involving intersections;
- Fatal crashes involving intersections; and
- Severe crashes involving intersections.

Table 4.12 summarizes Intersection safety strategies, potential action steps, key community stakeholder groups, potential timeframes, and resources for strategy implementation.



Table 4.12 Intersection Safety Strategies

Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
1. Conduct review of stop signs along key corridors	Signage and pavement markings provide information to drivers on how to move safely through an intersection. If drivers can easily see the markings and signs, they will be able to navigate the intersection better, with fewer last-second maneuvers that are unpredictable for other drivers.	<ul style="list-style-type: none"> Review sign inventory to identify the needs for marking stop signs as 4 way vs. 2-way. Develop plan for stop sign improvements (ensuring all are marked as all-way or 2-way). Focus on intersections with limited visibility. Advocate for funding for sign upgrades. Consider developing corridors with few stop signs for better traffic flow and other corridors with the same type of stop signs throughout. 	Department of Public Works – sign inventory manager BSB Law Enforcement Council of Commissioners	1-3 years	Department of Public Works, BSB Engineer
2. Improve process by which the public can report maintenance and safety needs	While the public works department's role is to continually maintain pavement markings, signs and signals, it can be challenging to stay on top of all maintenance needs on the system on a daily basis. The public can provide a useful role, serving as eyes and ears from a user perspective in terms of locations where maintenance is needed or where additional safety improvements would improve roadway system clarity and safety for drivers.	<ul style="list-style-type: none"> Increase clarity and visibility on web site of phone number for maintenance department, and explanation of the process for resolving them (e.g., the process generally takes an extended period of time; it may be necessary to get Council approval for certain improvements; implementation timing is affected by the construction season; projects are prioritized based on safety impact and other factors). Promote public input on maintenance needs to use as data-gathering mechanism. Establish a mechanism for feedback to residents on reported issues, (e.g., potentially collect the e-mail from the person reporting the problem and send an e-mail when improvement is made) Provide weekly web posting of scheduled maintenance projects 	Department of Public Works -Road Division BSB Information Technology Department Council of Commissioners	1-3 years	Department of Public Works



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
<p>3. Develop Road Safety Audit Program</p>	<p>Roadways/intersections are designed and built to engineering specifications, but traffic patterns and volumes change over time potentially create safety issues. Road Safety Audits, which have been proven highly effective, involve a multidisciplinary team evaluating locations for safety considerations from multiple perspectives. An outcome of the audits is identification of a range of potential safety improvements, usually with many low-cost safety improvements that can be implemented quickly.</p>	<ul style="list-style-type: none"> • Train local staff and community transportation advocates (engineering, public works, bike/ped advocates) on the RSA Process • Conduct RSAs on intersections defined in the 2005/2006 transportation plan and other high risk locations. Include local stakeholders, i.e., law enforcement, school representatives, EMS, and local residents • Through Safe Routes to School 6 elem. school districts will have bike walk audits done by National walk to school day. Emerson and Whittier schools have had these completed. These results can be used to identify low cost safety improvements to be implemented. 	<p>Department of Public Works BSB Engineer BSB ADA Coordinator</p>	<p>1-3 years</p>	<p>FHWA offers free RSA training. MDT can provide technical assistance on safety policy development</p>



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
4. Continue process for integrating safety considerations into ongoing maintenance and construction program	Every time a maintenance project is performed, there is opportunity to integrate safety elements into the project, often at a much lower cost than if a dedicated safety project were undertaken. Over time, if maintenance projects involve continuous safety upgrades, the result will be an entire system with improved safety elements. This can often be accomplished using existing resources.	<ul style="list-style-type: none"> Continue dedicated safety review as part of the maintenance program and project development process. Review safety resources to determine anticipated safety benefits of improvements. Establish construction process that explicitly considers safety, including ensuring that when sidewalks are closed for construction, notice is provided to pedestrians at the preceding corner. Establish process for tracking before/after crash results at locations where safety improvements are made. 	Department of Public Works MDT (conducts some striping) Sheriff Department	1-3 years	Crash Modification Clearinghouse provides safety data on a range of improvements: www.CMFClearinghouse.org Winston Salem example. http://www.lifesaversconference.org/handouts2012/Polanis.pdf MDT joint resolution on encouragement of roundabouts http://data.opi.mt.gov/bills/2005/BillHtml/HJ0012.htm
5. Enhance process for maintaining vision clearance at intersections	Intersections are designed to provide a clear line of sight for drivers navigating through them. Additionally, zoning codes require that vegetation near intersections be cleared periodically to maintain vision clearance. However, private property owners may not be aware of regulations governing vegetation clearance near intersections.	<ul style="list-style-type: none"> Promote public reporting of locations with vision clearance issues via enhanced DPW reporting process. Increase visibility of information for property owners on the web site. Aggressively enforce ordinance prohibiting snow storage in roadway near intersections where intersection sight distance is compromised by private property owners. Modify ordinance to prohibit clearance of snow such that it is placed in a travel lane. Conduct increased public communications on snow clearance ordinance, highlighting safety impacts of reducing intersection visibility, e.g., radio public service announcements, BSB web site postings 	Department of Public Works Zoning & Planning Department ADA Coordinator Bike/Ped representative Residents of BSB	1 year	Department of Public Works



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
6. Establish policy for consideration of roundabouts when intersections undergo rehabilitation or construction	<p>Roundabouts have been identified as one of the most effective ways to improve safety at certain types of intersections.</p> <p>Roundabouts reduce traffic conflicts (for example, left turns) that are frequent causes of crashes at traditional intersections. Unlike a traffic circle or a rotary, a roundabout's incoming traffic yields to the circulating traffic.</p>	<ul style="list-style-type: none"> Establish policy that consideration of a roundabout alternative is a requirement of all intersection analyses, including those privately funded by special increment financing. Construction of roundabouts has been officially encouraged by the Montana Legislature. 	Department of Public Works	1-3 years	<p>http://safety.fhwa.dot.gov/intersections/roundabouts/</p> <p>Roundabouts: An Informational Guide</p> <p>http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_672.pdf</p>
7. Conduct ongoing public education on good driving practices	<p>After people obtain their driver's license there is no continuing education about driving skills and practices. People may forget some of the technical aspects of good driving practice. If certain types of violations are observed in a community, it can be helpful to remind residents of "rules of the road" so that their driving behavior improves.</p>	<ul style="list-style-type: none"> Conduct an editor's briefing with news media outlets to present findings of CTSP and strategies for public education. Seek to collaborate on series about safe driving practices. Conduct communications on key driving issues, including: <ul style="list-style-type: none"> Requirement to yield to pedestrians in crosswalks Proper use of headlights after sunset and during inclement weather. Use of turn signals when changing lanes and turning at intersections. Correct turn procedures at intersections when turning onto a multi-lane roadway by starting and ending a right turn in the right-most lanes. Correct turn procedures at intersections when turning left onto a multi-lane roadway Ensure drivers know how to share the road with bicyclists. 	<p>News media</p> <p>BSB Law Enforcement Department</p> <p>AARP/Area Agency on Aging</p> <p>Alive @25</p> <p>BSB Public Information Officer</p> <p>Office of Emergency Management</p> <p>Local insurance agents</p>	1-3 years	<p>State Farm Insurance Steer Clear Safe Driver Program</p> <p>http://www.statefarm.com/insurance/auto_insurance/steerClear.asp</p> <p>BSB Media outlets</p> <p>BSB City/County web site</p> <p>BSB resident communications vehicles, e.g., Butte Silver Bow Law Enforcement Facebook page</p>



Strategy	Purpose	Action Steps	Stakeholders	Timeframe	Resources
<p>8. Conduct speed, red-light running and stop sign enforcement at targeted locations</p>	<p>A primary way to ensure that drivers obey laws is for them to feel that they will be cited for a violation. Increased enforcement at key locations will increase drivers' compliance with laws so they will be less likely to approach/traverse intersections at high speeds or disobey signals and stop signs.</p>	<ul style="list-style-type: none"> Establish a process for law enforcement (BSB Law Enforcement Department) identification of target intersections for increased enforcement, potentially quarterly or monthly 	<p>BSB Law Enforcement Department</p>	<p>1-2 years</p>	<p>BSB Law Enforcement Department Safe Routes to School grant for 2012 provides funding for enforcement in school zones.</p>



5.0 Implementation

Completion of the Butte-Silver Bow Community Transportation Safety Plan is just the first step toward improving the safety of community residents on Silver Bow County roadways. For any change to substantively occur, the plan must be *implemented*. The momentum achieved through the TSAC and at the Safety Summit must be maintained to bring safety strategies to fruition. Implementation of each strategy listed above must be tracked and the performance measures monitored to ensure progress is being made.

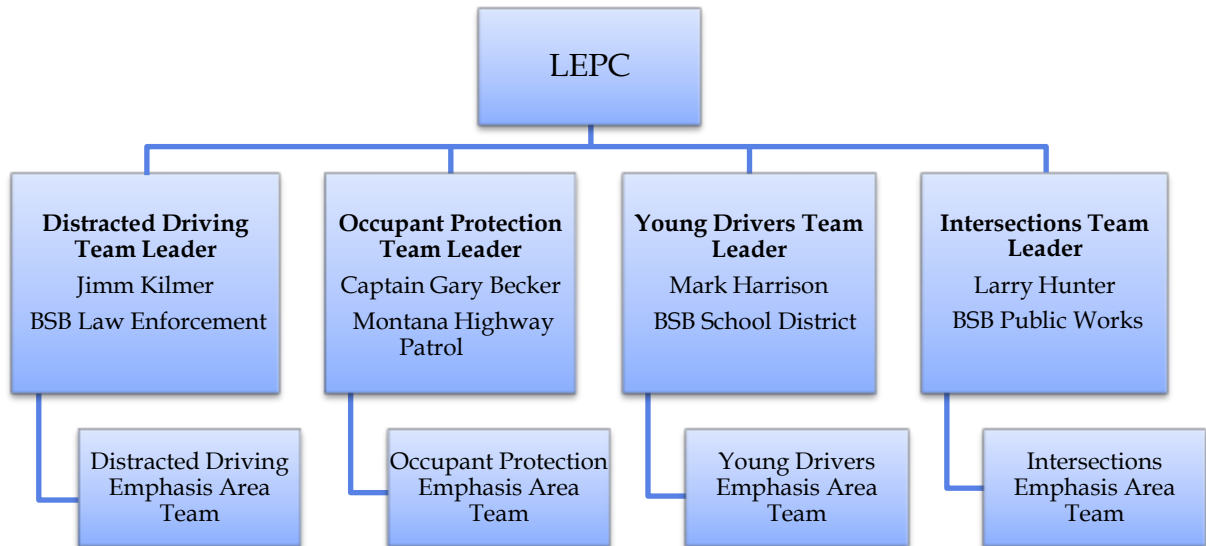
Key implementation steps include the following activities:

1. Champions establish emphasis area teams and coordinate team meetings;
2. Emphasis area teams identify a leader for implementation of each emphasis area strategy and associated action steps;
3. Emphasis area teams conduct regular (e.g. monthly) meetings to coordinate implementation and assess progress;
4. Emphasis area teams report to LEPC regularly (e.g. quarterly); and
5. Emphasis area teams may develop new strategies for each emphasis area as appropriate depending on available resources and progress toward achieving goals.

Figure 5.1 shows an organizational structure for implementation.



Figure 5.1 Emphasis Area Team Structure for Implementation



A committed group of stakeholders - the Transportation Safety Advisory Committee - has been established. All involved have provided their best ideas and commitment to this plan. Implementing the plan, TSAC members will need to continue to provide overarching guidance, and many TSAC members will likely be involved in implementation of individual strategies.

■ 5.1 Local Emergency Planning Committee Role

The BSB Local Emergency Planning Committee (LEPC) provided oversight for the TSAC’s development of the Community Transportation Safety Plan and will have an important role during implementation. LEPC shall be the official BSB entity to ensure implementation of the CTSP. The LEPC will establish subcommittees based on the emphasis areas. Every three months, the four emphasis area team leaders will present the status of plan implementation to the LEPC at one of its monthly meetings. Reporting should include details on which strategies are underway, what has been accomplished, safety performance measures and discussion of any challenges requiring additional community support.



Ongoing participation of the LEPC and support of the BSB local officials is a critical component of the overall success of the CTSP. If feasible, it is recommended that BSB continue to provide the resources and leadership to facilitate the TSAC to ensure that efforts to implement the CTSP continue into the future.

■ 5.2 Progress Reporting

Regular progress tracking and reporting is essential to the CTSP's success. Monitoring progress allows the LEPC to assess and modify strategies as necessary to accomplish the CTSP's goal. Tracking and reporting implementation progress of emphasis area strategies and performance measures to MDT must be done by the Plan Sponsor by December 31st of each year. Performance measures the LEPC and emphasis area teams should track annually are:

- Five year rolling average of overall crashes and progress toward the goal of reducing the annual number of crashes by 20 percent by 2018 (from an average of 671 crashes to 537 crashes per year).
- Total, fatal and incapacitating injury crashes involving
 - Distracted or inattentive driving;
 - Young drivers;
 - Intersections; and
 - Lack of proper occupant protection.

The Plan Sponsor will update the CTSP as warranted to improve safety and reduce the number and severity of crashes in Butte-Silver Bow. A suggested reporting template is included in this plan as Appendix E.



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Appendix A

TSAC Membership

Lee Alt
Montana Department of Transportation

Gary Becker
Montana Highway Patrol

Lori Casey
BSB Planning

Roger Ebner
BSB Emergency Management

Gina Evans
Safe Routes to School Coordinator

Joe Gilboy
SW Montana Aging Services

Aimee Haffey
Buckle Up MT

Mark Harrison
BSB School District

Steve Hess
BSB Planning

Todd Hoar
BSB ADA Coordinator

Jed Hoopes
BSD No.1

Larry Hunter
BSB Public Works

Sgt. Jimm Kilmer
BSB Law Enforcement Dept.

Pam Langve-Davis
Montana Department of Transportation

Susan Mackey
Safe Routes to School/Complete Streets

Cathy Maloney
BSB County Superintendent of Schools

Jeff Miller
BSB Fire Department

Jen Phillips
St. James Healthcare

Carol Strizich
Montana Department of Transportation

John Walsh
Butte-Silver Bow Sheriff



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Appendix B

Safety Summit Participants

Lee Alt
Montana Department of Transportation

Paul Babb
BSB Chief Executive

Gary Becker
Montana Highway Patrol

Marilyn Cameron
Montana Tech

Dan Dennehy
BSB Public Works

Roger Ebner
BSB Emergency Management

Gina Evans
Safe Routes to School Coordinator

Aimee Haffey
Buckle Up MT

Dan Haffey
BSB Prevention

Steve Hess
BSB Planning Department

Todd Hoar
BSB ADA Coordinator

Duane Johnson
Little Basin Creek Resident

Sgt. Jimm Kilmer
BSB Law Enforcement Department

Cynthia Kneebone
Little Basin Creek resident

Dave Kneebone
Little Basin Creek resident

Cindy Kromm
Little Basin Creek Resident

Pam Langve-Davis
Montana Department of Transportation

Sam Lawton
Cambridge Systematics

Susan Mackey
Safe Routes to School/Complete Streets

Bob Everett Martin

Mary McLaughlin
Little Basin Creek resident

Jennifer Phillips
St. James Healthcare

Crystal Rane
BuckleUp Montana

Laurel Staples
BSB Prevention Services

Carol Strizich
Montana Department of Transportation

Dan Sweeney
City Court

John Walsh
Butte-Silver Bow Sheriff

Audrey Wennink
Cambridge Systematics

Ed Zimpel
Beef Trail resident

Vonnie Zimpel
Beef Trail resident



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Appendix C

Safety Resources

Distracted/Inattentive Driving

Network of Employers for Traffic Safety (NETS) - distracted driving, impaired driving, employer information <http://trafficsafety.org/>

National Safety Council- Distracted Driving, Driver Safety, Teen Driving (Alive @ 25)
http://www.nsc.org/safety_road/Pages/safety_on_the_road.aspx

U.S. DOT Distracted Driving Web Site - <http://www.distraction.gov/>

Texting & Driving Utah video - <http://ut.zerofatalities.com/texting.php>

Hands Free Info - <http://handsfreeinfo.com/>

State Farm - Teen Driving Site; tips, facts, discount funding,
<http://www.betterteendriving.com/>

MDT- Highway Safety Office, Distracted Driving Webpage -
http://www.mdt.mt.gov/safety/distracted_driving.shtml

AT&T Distracted Driving Prevention Webpage - pledge, download AT&T Drive Mode App
<http://www.att.com/gen/press-room?pid=2964>

Verizon Distracted Driving Prevention App -
http://www.getizup.com/index.php/what_is_izup/overview?PHPSESSID=

Insurance Institute for Highway Safety - Q&A on Cell phones and driving
http://www.iihs.org/research/topics/cell_phones.html



Occupant Protection

Buckle Up Montana - <http://buckleup.mt.gov/>

MDT Highway Safety Office Occupant Protection Webpage-
<http://www.mdt.mt.gov/safety/occupant.shtml>

NCHRP 500 Series Volume 11: A Guide for Increasing Safety Belt Use
[Chttp://safety.transportation.org/guides.aspx?cid=28](http://safety.transportation.org/guides.aspx?cid=28)

National Highway Traffic Safety Administration Occupant Protection Web Site -
<http://www.nhtsa.gov/Driving+Safety/Occupant+Protection>

Young Drivers

MDT Highway Safety Office Young Drivers Webpage -
http://www.mdt.mt.gov/safety/young_drivers.shtml

Teen Drivers - <http://www.nhtsa.gov/Teen-Drivers>

SADD (Students Against Destructive Decisions) - underage drinking, other drug use, impaired driving and other destructive decisions
<http://www.sadd.org/>

NOYS (National Organizations for Youth Safety) - underage drinking, distracted driving, seatbelts
<http://www.noys.org/>

NOYS Youth Traffic Safety Toolkit:
<http://www.mdt.mt.gov/safety/docs/2010-youth-traffic toolkit1.pdf>

Family Guide to Teen Driver Safety:
http://www.mdt.mt.gov/safety/docs/family_guide_teen.pdf

National Safety Council Teen Driver Safety Information
http://www.nsc.org/safety_road/teendriving/pages/teen_driving.aspx

Teen Driver Safety Poster
http://www.nsc.org/safety_road/TeenDriving/Documents/83679A_TeenDriver-Safety-Poster_Eng_NoLogo.pdf

Teens and Work Zones: <http://www.workzonedriver.org/Teens/index.htm>

Allstate Keep the Drive campaign: <http://www.allstatefoundation.org/keep-the-drive?CID=OTC-DNSR-BO-110601&att=keepthedrive.com>

Stop The Texts - Stop the Wrecks <http://www.stoptextsstopwrecks.org/#home>

Teen Driving Web Site: <http://www.teendriving.com/>



Alive@25 Program

http://www.nsc.org/products_training/Products/MotorVehicleSafety/Pages/Aliveat25ParentProgram.aspx

Department of Justice Driver Licensing Information:

<https://doj.mt.gov/driving/driver-licensing/>

Intersections

NCHRP 500 Series Volume 12: A Guide for Reducing Collisions at Signalized Intersections -

<http://safety.transportation.org/guides.aspx?cid=33>

NCHRP 500 Series Volume 5: A Guide for Reducing Collisions at Unsignalized Intersections -

<http://safety.transportation.org/guides.aspx?cid=26>

FHWA Intersection Safety Web Site - <http://safety.fhwa.dot.gov/intersection/>

NCHRP Report 672: Roundabouts an Informational Guide -

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_672.pdf

FHWA Road Safety Audit Web Site - <http://safety.fhwa.dot.gov/rsa/>

Other Resources

MDT Community Transportation Safety Plan: <http://www.mdt.mt.gov/safety/plans-programs/community-plans.shtml>

MDT -Comprehensive Highway Safety Plan <http://www.mdt.mt.gov/safety/plans-programs/chsp.shtml>

MDT Highway Safety Grants & Funding: <http://www.mdt.mt.gov/safety/grants.shtml>

Insurance Institute for Highway Safety - research, laws, vehicle safety ratings

<http://www.iihs.org/>



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Appendix D

Glossary

Data Sources

All the crash data contained in this report, except the Native American fatality data, was gathered from reports run in the spring of 2012 from the MT Department of Transportation, Safety Management System. The Native American fatality data is from the Fatality Analysis Reporting System.

Injury Severity

Fatal Injury: Any injury that results in death.

Incapacitating Injury: Any injury, other than a fatal injury, which prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred.

Crash Severity

Fatal Crash: Any injury crash that results in one or more fatal injuries.

Incapacitating Injury Crash: Any injury crash, other than a fatal crash, that results in one or more incapacitating injuries.

Property Damage Only Crash: Any non-injury crash in which damage to the property of a person exceeds \$1,000.

Crash-Related Emphasis Areas

Run-Off-The-Road

Any crash where the first harmful event was overturn, immersion, other non-collision, collisions with motor vehicle on another roadway or collision with any fixed object. There is no specific code for road departure in the Montana crash report, so this provides a way to estimate the number of run-off-the-road crashes where a vehicle.

Alcohol/Drug-Related

Any crash where at least one driver involved in the crash is determined to have had a BAC of 0.01g/dL or higher OR if police indicate on the crash report that there is evidence of alcohol and/or drugs present. This does not necessarily mean that the driver was tested for alcohol and/or drugs.



Young Drivers

Any crash involving at least one driver from 16 to 24 years-old. This does not imply the young driver is at fault in the crash.

Older Drivers

Any crash involving at least one driver over the age of 64 years. This does not imply the older driver is at fault in the crash.

Trucks

Any crash involving at least one vehicle with a truck body-type and over 10,000 pounds gross vehicle weight rating, including single unit trucks and truck tractors. This is not limited to commercial vehicles. This does not imply the driver of the truck is at fault in the crash.

Motorcycles

Any crash involving at least one motorcycle. This does not imply the motorcyclist was injured, nor does it imply the motorcyclist was at fault. The definition of a motorcycle includes motor-scooters, mini-bikes and mopeds; it excludes all terrain vehicles (ATVs) and snowmobiles.

Intersection/Intersection-Related

Any crash where the first harmful event occurs within the limits of an intersection OR where the first harmful event occurs on an approach to or exit from an intersection and results from movement through the intersection.

Pedestrians

Any crash involving at least one pedestrian. This does not imply the pedestrian was at fault in the crash.

Bicycle

Any crash involving at least one bicycle. This does not imply the bicyclist was at fault in the crash.

Asleep/Fainted/etc.

Any crash with at least one driver-related contributing circumstance being fell asleep, fainted, etc.



Speed-Related

Any crash with at least one driver-related contributing circumstance being exceeded stated speed limit or too fast for conditions.

Wild Animals

Any crash where the first harmful event was wild animal. Crashes involving domestic animals are excluded.

Inattentive Driving

Any crash with at least one driver-related contributing circumstance being inattentive driving or cell phone use.

Train

Any crash where the first or most harmful event was railway train.



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Appendix E

CTSP Annual Reporting Template

Summary

Please briefly characterize the activities undertaken to implement the CTSP during the past twelve months and note any challenges faced. Please note the five year average of total crashes in BSB during the most recent reporting year for which crash data are available, the change since the previous reporting year and the progress to reaching your goal.

Below, please list accomplishments for each strategy addressed during the past 12 months. (For example: type of materials developed, # of materials distributed and to whom, # of media stories about issue, # of low cost engineering improvements identified/implemented, etc.)

Distracted/Inattentive

Team Leader Name:

- # of crashes involving distracted drivers; % change compared to same period in previous year (MDT will provide data)
- # of severe crashes (fatal and incapacitating injury) involving distracted drivers; % change compared to same period in previous year (MDT will provide data)
- Strategy 1 Report:
- Strategy 2 Report:
- Etc.

Occupant Protection

Team Leader Name:

- # of crashes involving non-use of safety belts; % change compared to same period in previous year (MDT will provide data)
- # of severe crashes involving non-use of safety belts; % change compared to same period in previous year (MDT will provide data)
- Strategy 1 Report:
- Strategy 2 Report:
- Etc.



Young Drivers (age 16-24)

Team Leader Name:

- # of crashes involving young drivers; % change compared to same period in previous year (MDT will provide data)
- # of severe crashes involving young drivers; % change compared to same period in previous year (MDT will provide data)
- Strategy 1 Report:
- Strategy 2 Report:
- Etc.

Intersections

Team Leader Name:

- # of crashes involving intersections; % change compared to same period in previous year
- # of severe crashes involving intersections; % change compared to same period in previous year
- Strategy 1
- Strategy 2
- Etc.



Appendix F

TSAC Meeting Presentations

Butte-Silver Bow TSAC Meeting I

presented to
**Butte-Silver Bow Transportation Safety
Advisory Committee**

presented by
Cambridge Systematics, Inc.
Audrey Wennink

March 21, 2012


Transportation leadership you can trust.



Agenda

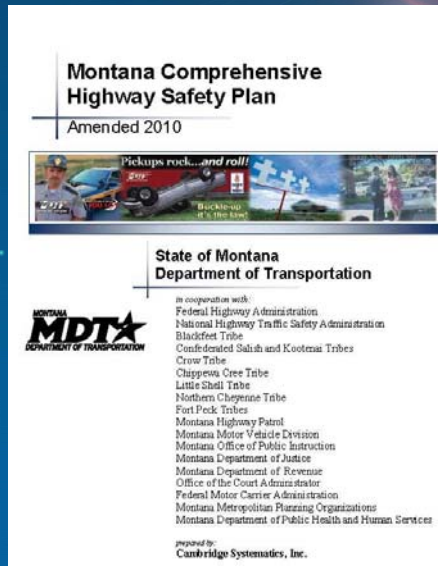
- **Welcome and Introductions**
- **Community Transportation Safety Planning (CTSP) Process Overview**
- **Transportation Safety Advisory Committee (TSAC) Role & Responsibilities**
- **TSAC Membership Discussion**
- **Butte-Silver Bow Crash Data Overview**
- **Community Safety Issues Discussion**
- **Questions and Open Discussion**

2



MT Comprehensive Highway Safety Plan

- Urban Areas are an emphasis area
- Addresses issues at all levels of jurisdiction, especially local and Tribal



Project Team

- Montana Department of Transportation
 - » Carol Strizich
 - » Pam Langve-Davis
- Consultant Team from Cambridge Systematics, Inc.
 - » Audrey Wennink – Senior Analyst
 - » Sam Lawton – Project Manager



Purpose of Transportation Safety Plan

The Butte-Silver Bow community is seeking a multimodal Community Transportation Safety Plan that will document the area's transportation safety issues and identify a comprehensive set of strategies to improve safety by reducing the number and severity of traffic crashes.

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SYSTEMATICS

Plan Development Process

- Establish TSAC
- Collect and review data
- Establish Goals and Objectives
- Identify Safety Emphasis Areas
- Identify strategies to address emphasis areas
- Define performance measures and means of monitoring progress
- Assign implementation responsibilities
- Review and finalize plan

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CAMBRIDGE
SYSTEMATICS

Work Plan and Timeline (proposed)

Kickoff Meeting	March 21, 2012
Select Emphasis Areas	April
Identify Current Strategies	May
Safety Summit	June
Draft Plan	July
Final Plan	August



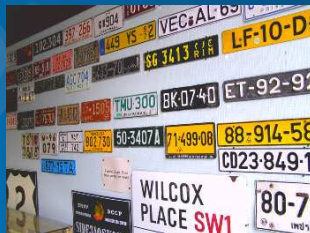
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Transportation Safety Advisory Committee (TSAC)

TSAC Draft Mission Statement

To provide guidance on the development of the Community Safety Transportation Plan and participate in and provide direction on plan implementation.



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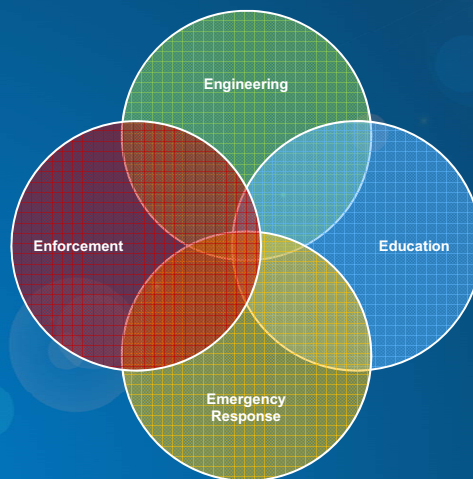
TSAC Roles and Responsibilities

- Attend committee meetings and the Transportation Safety Summit
- Review available data; identify data needs
- Determine priority safety emphasis areas
- Develop mission statement, goals, and measurable objectives
- Review and finalize strategies and action steps
- Identify lead agencies, organizations, and individuals to facilitate implementation
- Approve and submit final plan to City and County of Butte-Silver Bow for adoption
- Support implementation of the Community Transportation Safety Plan

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“The 4 E’s of Safety”



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Potential TSAC Membership

- Butte-Silver Bow Emergency Management Agency
- Montana Highway Patrol, District III
- Public Works
- Transit Division
- Planning
- Sheriff
- St. James Healthcare
- Health Department
- School District
- Safe Routes to School
- Fire Department
- DUI Task Force
- MDT, Traffic Engineering
- Area Agency on Aging
- Business Development Center, Development Disability
- A-I Ambulance Services

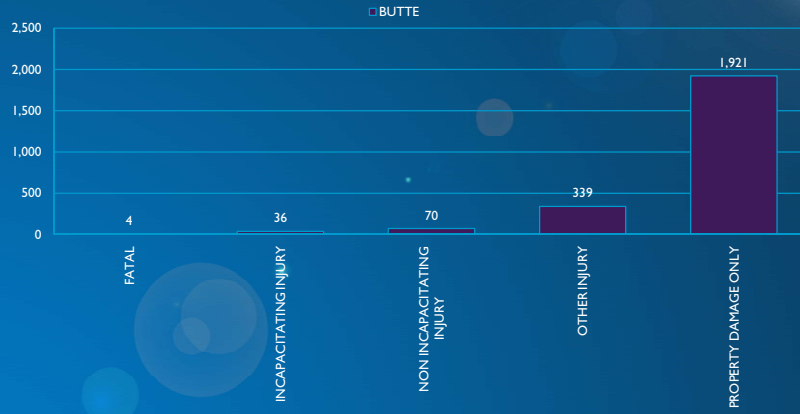


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Crash Data

2006-2010

Crash Severity (2006-2010)



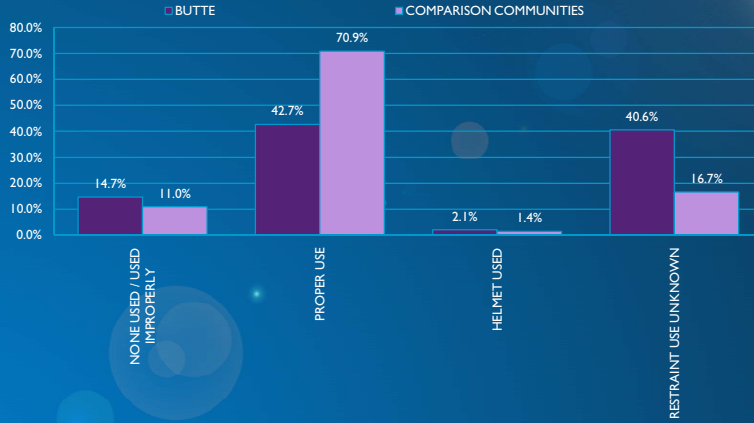
Source: MDT-Safety Management System, 2012

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Behavior

Injuries by Safety Device Used (2006-2010)

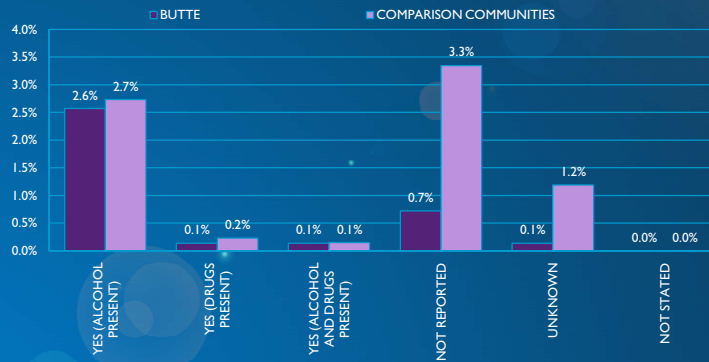


Source: MDT-Safety Management System, 2012

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CAMBRIDGE SAFETY SYSTEMS

Drivers by Impairment – All Crashes 2006-2010

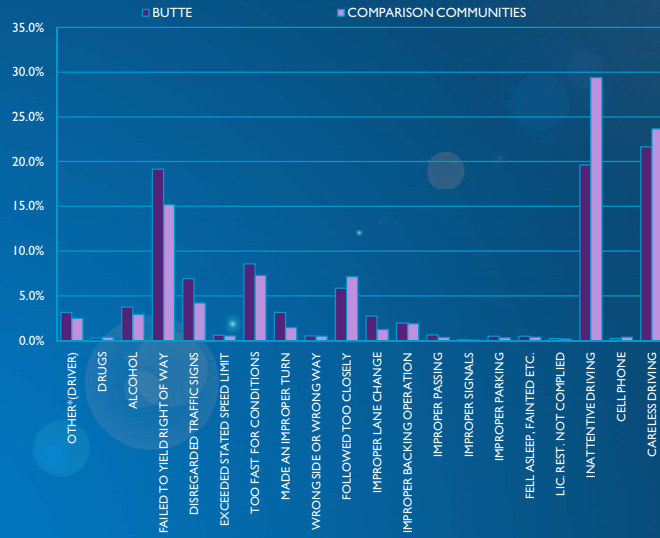


Source: MDT-Safety Management System, 2012

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CAMBRIDGE SAFETY SYSTEMS

Driver Contributing Circumstances All Crashes – 2006-2010



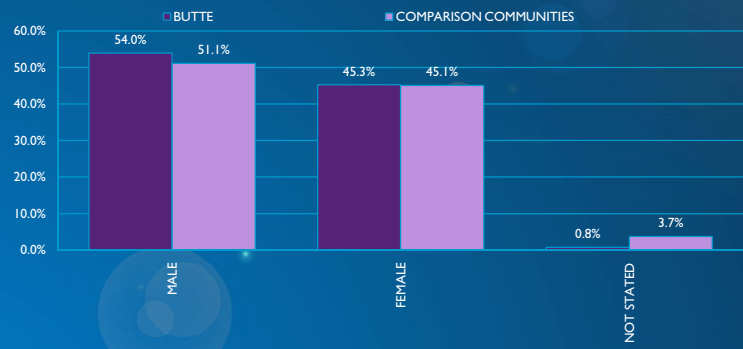
17

Source: MDT-Safety Management System, 2012



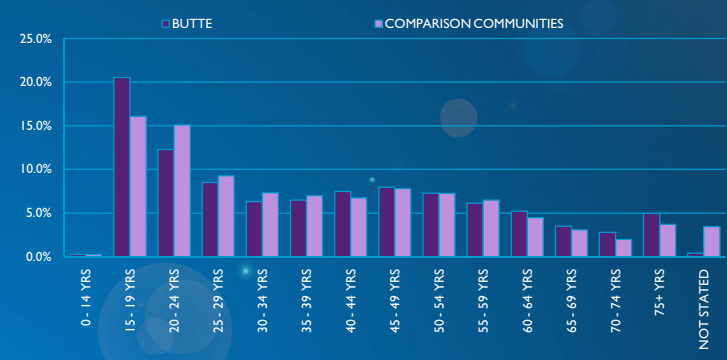
Demographics

Drivers by Gender – All Crashes 2006-2010



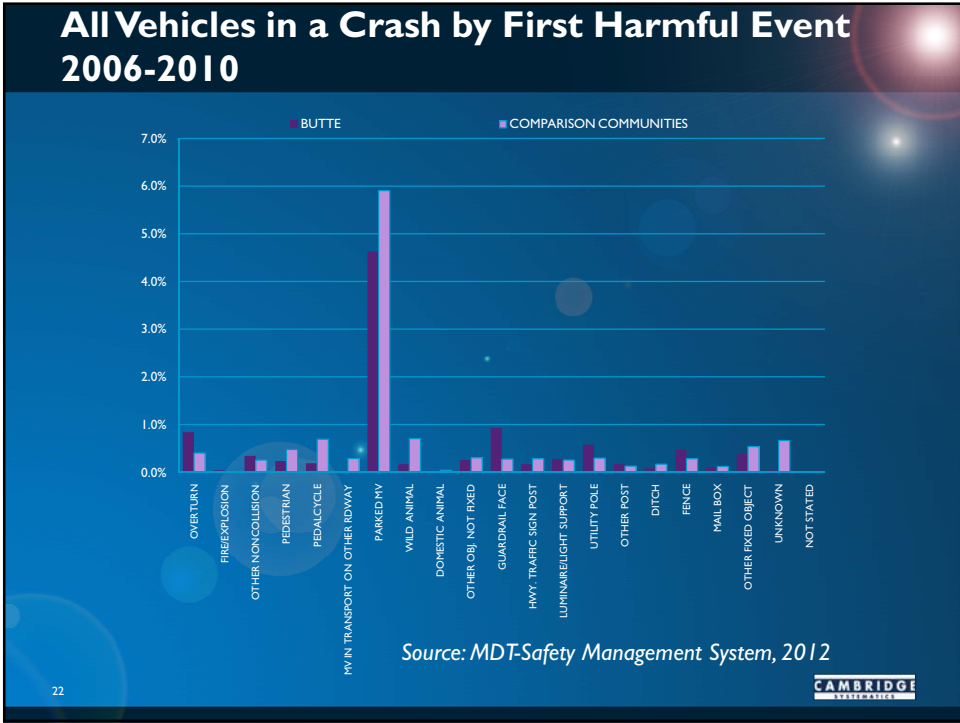
Source: MDT-Safety Management System, 2012

Drivers by Age - All Crashes 2006-2010

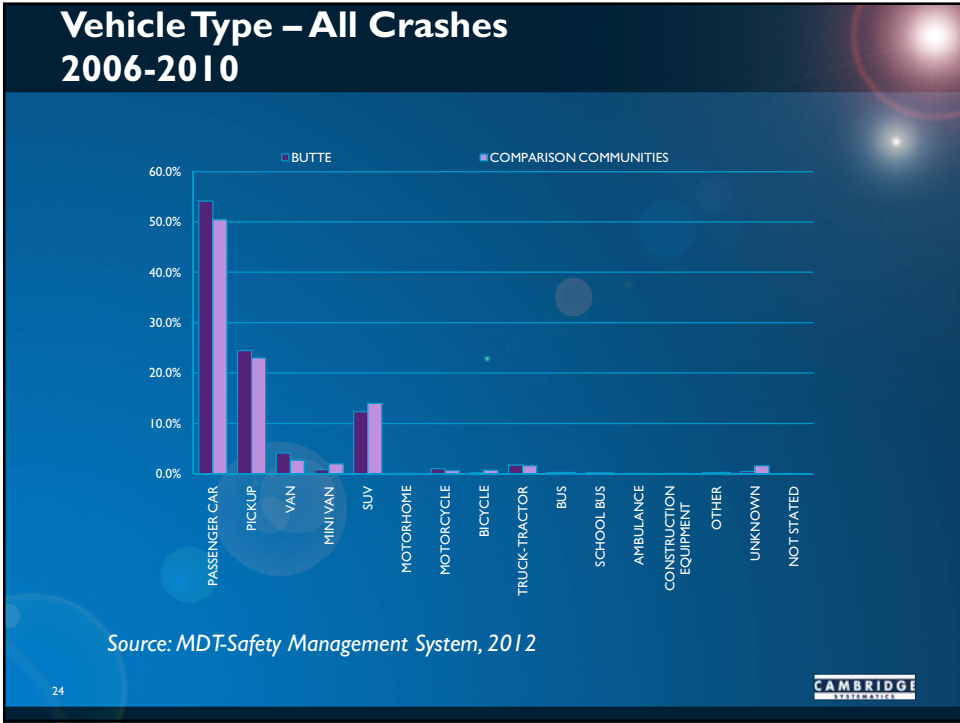


Source: MDT-Safety Management System, 2012

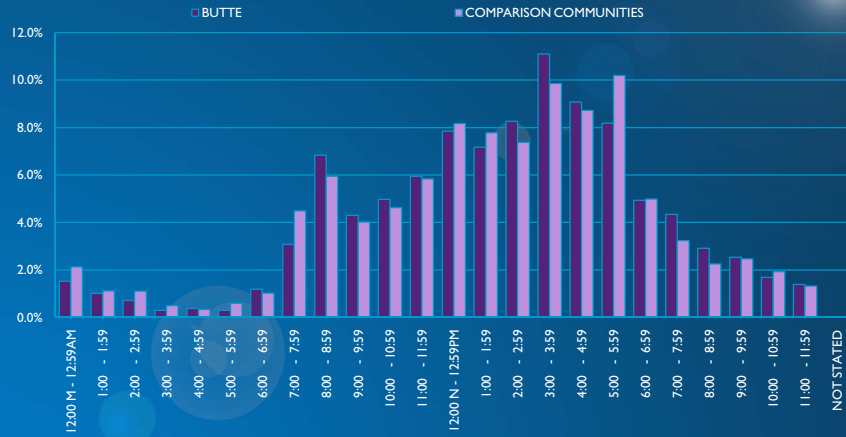
Crash Type



Other Factors



Crashes by Time of Day 2006-2010

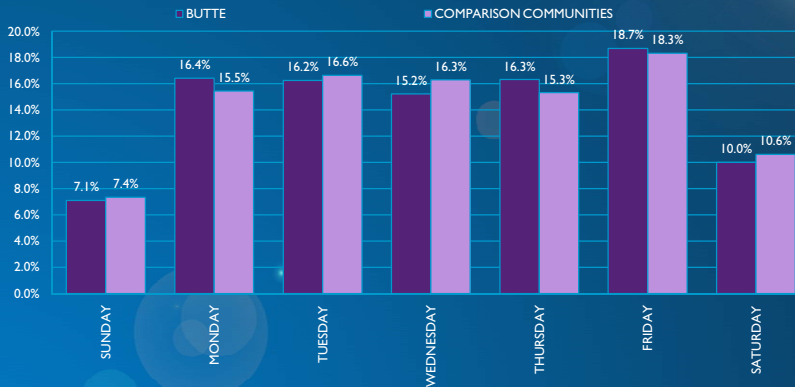


Source: MDT-Safety Management System, 2012

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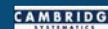


Crashes by Day of Week 2006-2010

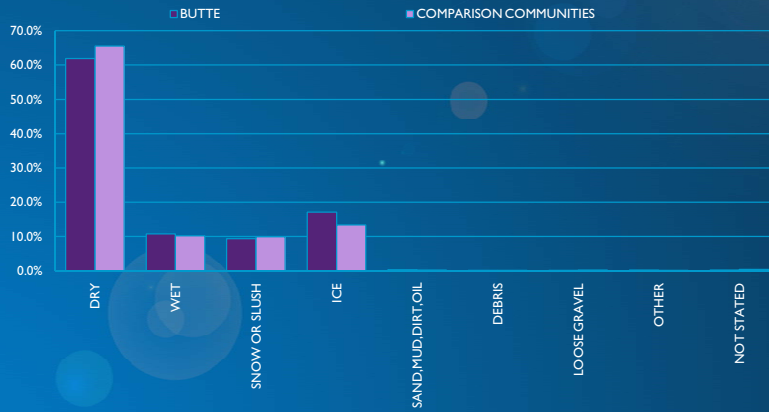


Source: MDT-Safety Management System, 2012

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Crashes by Road Condition 2006-2010

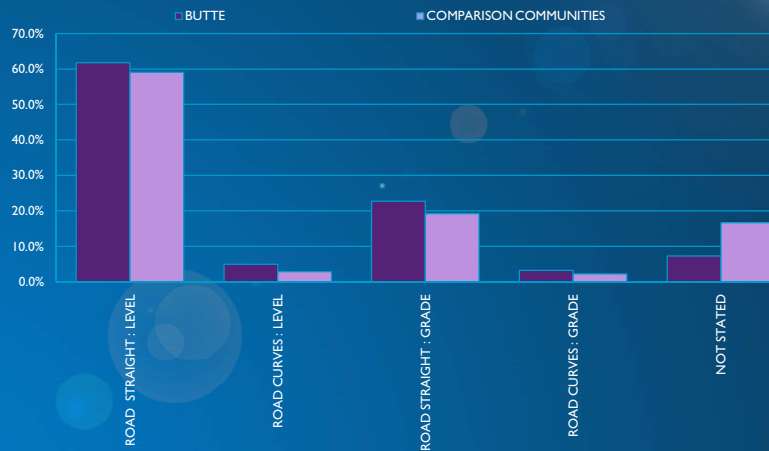


Source: MDT-Safety Management System, 2012

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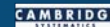


Crashes by Grade/Horizontal Alignment 2006-2010



Source: MDT-Safety Management System, 2012

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Key Issues-Potential Emphasis Areas

- Young Drivers
- Safety Belt Use
- Inattentive/Careless
- Others?

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Next Steps

Next TSAC Meeting

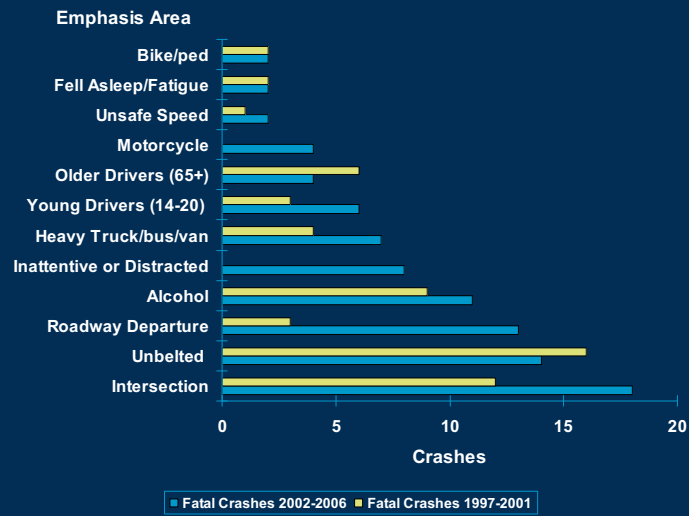
- Establish safety goal
- Additional data analysis
- Determine Emphasis Areas for Plan

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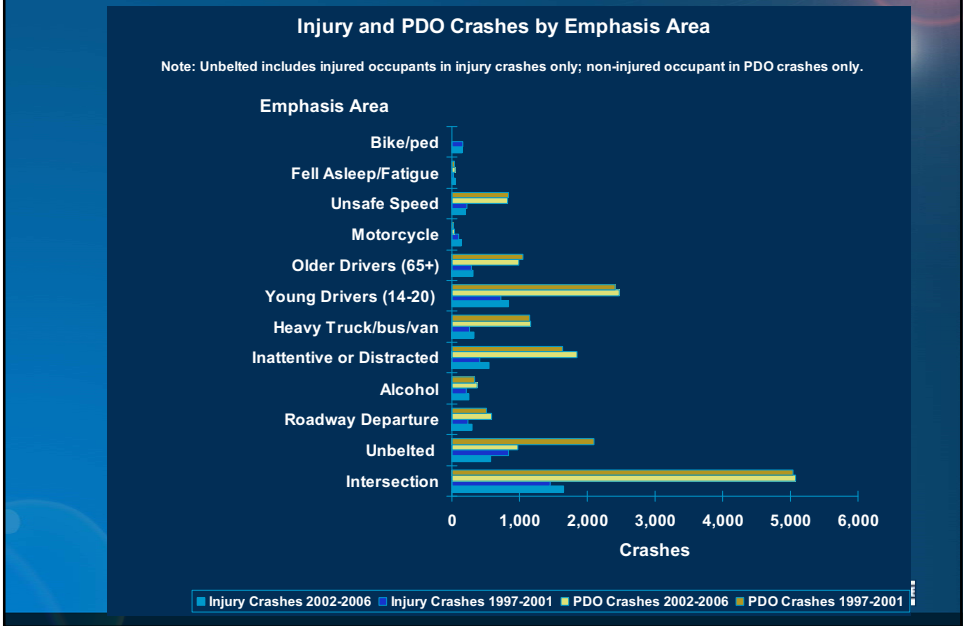
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Example: Potential Cheyenne Emphasis Areas *Fatal Crashes*

Fatal Crashes by Emphasis Area



Example: Potential Cheyenne Emphasis Areas Injury and Property Damage Only Crashes



Mission for Community Transportation Safety Plan

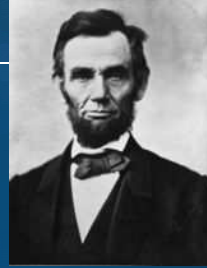
Mission

Where do you want to be in the future and how do you intend to get there?

SHSP Mission Statement Examples

Illinois-Process

Develop, implement, and manage an integrated multi-stakeholder process to improve the attributes of roads, users, and vehicles to reduce traffic-related deaths and life-altering injuries in Illinois.



Michigan-Collaboration

Provide leadership to improve traffic safety by fostering communication, coordination, and collaboration among government and other public and private entities in Michigan.

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Goal

What do you intend to accomplish through the Butte-Silver Bow CTSP?

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CTSP Goals - Sample Approaches

- 20 percent reduction in severe injuries (fatalities + incapacitating injuries)
- Reduction of a specific number of severe injury crashes
- Percent reduction in all crashes
- One death is one too many – zero fatalities
- Reduce fatal and incapacitating injuries by half by 2030 (MT CHSP)

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Examples - Traffic Safety Goals

Butte

To reduce motor vehicle crashes by 20 percent by 2017, from an annual average of 671 crashes to an annual average of 537 crashes .

Shelby/Toole County

Reduce average annual severe injury crashes within Toole County by one third by 2015, resulting in an average of no more than four severe injury crashes per year

Cheyenne, WY

Reduce fatal and serious injury crashes by 10 percent from 2008 to 2020 (Reduction of 3.5 fatal and serious injury crashes per year).

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Next Steps

- Select dates/locations for next two meetings
 - » Develop agenda and materials
- Select potential dates/location for Safety Summit
- Homework:
 - » What are Butte-Silver Bow's most significant transportation safety issues?
 - » What programs are currently in place?
 - » What more should or could be done?

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Open Discussion

Butte-Silver Bow TSAC Meeting 2

presented to

**Butte-Silver Bow Transportation Safety
Advisory Committee**

presented by

Cambridge Systematics, Inc.

Audrey Wennink

April 19, 2012



Transportation leadership you can trust.



Agenda

- **Welcome and Introductions - Roger Ebner**
- **CTSP Goal - All**
- **Safety Data Presentation by Emphasis Area – Audrey Wennink**
- **Emphasis Area Selection – All**
- **Setting a Summit Date – All**
- **Next Steps – Audrey Wennink**
- **Questions and Open Discussion - All**

Project Team

- Montana Department of Transportation
 - » Carol Strizich
 - » Pam Langve-Davis
- Consultant Team from Cambridge Systematics, Inc.
 - » Audrey Wennink – Senior Analyst
 - » Sam Lawton – Project Manager



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Plan Development Process

- Establish TSAC
- Collect and review data
- Establish Goal
- Identify Safety Emphasis Areas
- Identify strategies to address emphasis areas
- Define performance measures and means of monitoring progress
- Assign implementation responsibilities
- Review and finalize plan

← We are here

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Work Plan and Timeline

Kickoff Meeting	March 21, 2012
Establish Goal and Select Emphasis Areas	April 
Identify Current Strategies	May
Safety Summit	June
Draft Plan	July
Final Plan	August



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Safety Goal

What do you intend to accomplish through the Butte-Silver Bow CTSP?

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Crash Severity (2006-2010)



Source: MDT-Safety Management System, 2012

7



Butte-Silver Bow Five -Year Averages (2006-2010)

Crashes

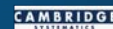
Fatal Crashes	Incapacitating Injury Crashes	Injury Crashes	PDO Crashes	Total Crashes
5	23	118	526	671

Fatalities/Injuries

Fatalities	Incapacitating Injuries	Injuries
5	28	168

Source: MDT-Safety Management System, 2012

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CTSP Goals - Sample Approaches

- 20 percent reduction in current severe injuries (fatalities + incapacitating injuries)
- Reduction of a specific number of severe injuries, based on a 3 to 5-year average
- One death is one too many – zero fatalities
- Reduce fatal and incapacitating injuries by half by 2030 (MT CHSP)

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Goal Characteristics

- SMART Goals are
 - » Specific
 - » Measurable
 - » Achievable
 - » Results-focused
 - » Timebound



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Examples - Traffic Safety Goals

Iowa

To reduce motor vehicle fatalities to a ten-year annual average of less than 400 deaths by 2015 (45 lives saved per year).

Michigan

Reduce traffic fatalities from 1,084 in 2007 to 850 in 2012.

Reduce serious traffic injuries from 7,485 in 2007 to 5,900 in 2012.

Cheyenne, WY

Reduce fatal and serious injury crashes by 10 percent from 2008 to 2020 (Reduction of 3.5 fatal and serious injury crashes per year)

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Butte-Silver Bow Safety Goal

- Reduce all crashes by 20% in five years
 - » Reduction of 134 crashes per year (671 to 537)

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Potential Emphasis Areas

What is an “Emphasis Area?”

- A priority safety issue for Silver Bow County based on data and community input
- A safety issue for which community focus and resources will be applied with the intention of improving transportation safety and achieving the goal(s) of the CTSP
- Emphasis Areas can change over time – to reflect progress and changing conditions or needs

Selection of Emphasis Areas

- **Impact** – Where can we have the biggest impact? Will strategies in this area significantly reduce the number of fatalities and serious injuries?
- **Data Availability** – Are there enough reliable data available to accurately identify, prioritize, and articulate the problem?
- **Cost** – Is the cost to implement effective strategies in this area prohibitive? Do we have the resources needed to address the problem?

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Selection of Emphasis Areas

Consider . . .

- **Loss of Life** – What is the extent of loss of life related to this emphasis area?
- **Serious Injuries** – What is the extent of serious injuries related to this emphasis area?
- Where have there been **significant increases** in the last several years?
- Where has the level of fatalities and injuries reached a **plateau**?

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Selection of Emphasis Areas

- Feasibility

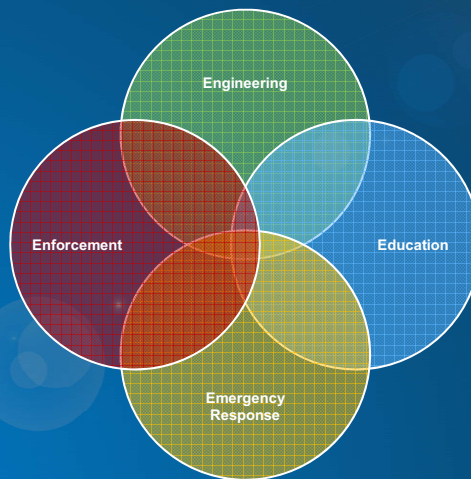
- » What can realistically be accomplished over the next 3 to 5 years?
- » Are there enough resources and tools?
- » Will the TSAC have stakeholder support?
- » Do safety stakeholders have the necessary technical expertise?
- » Will there be public support?



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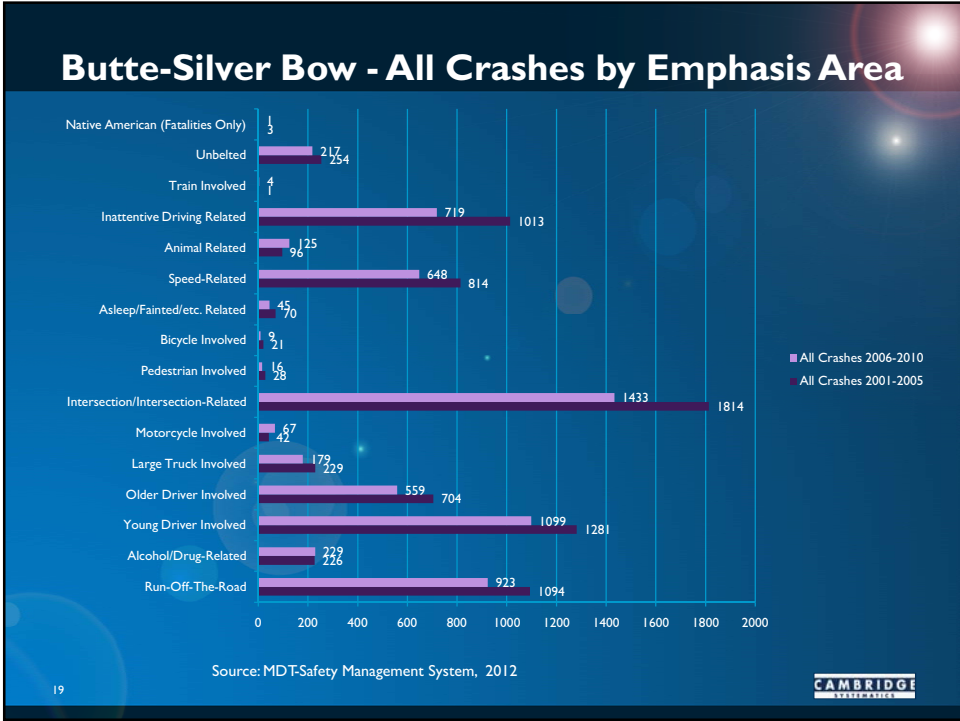
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“The 4 E’s of Safety”

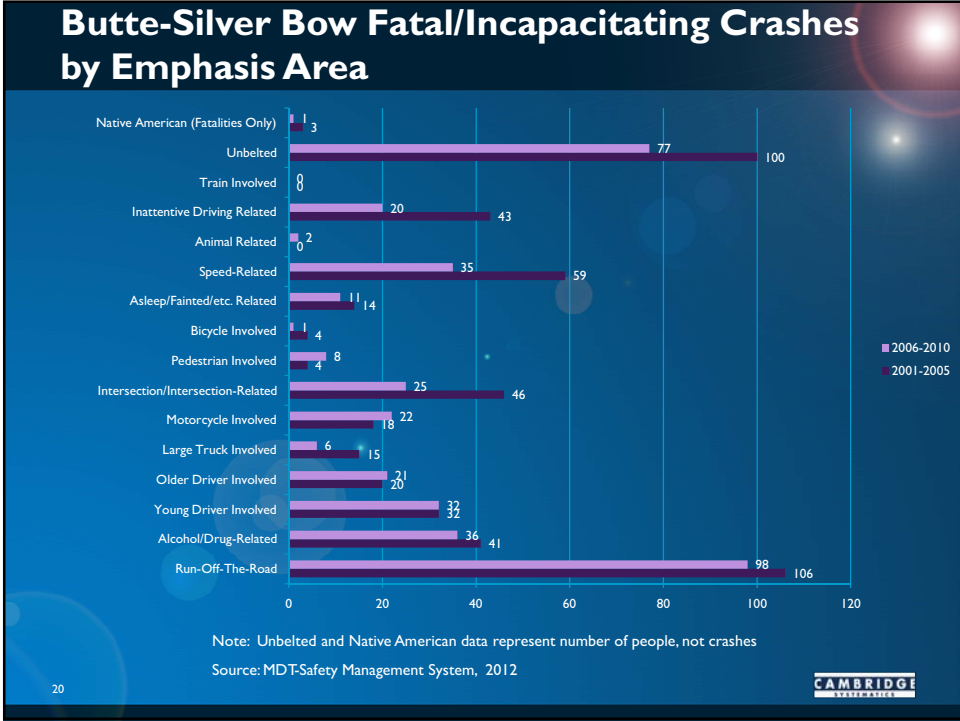


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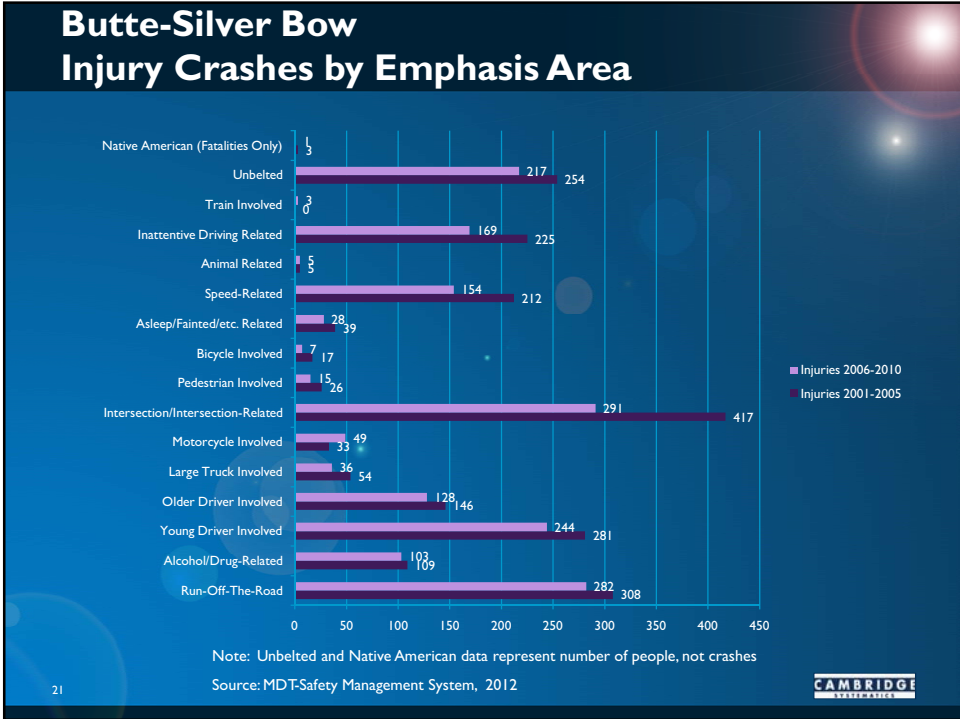
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- ### Potential Emphasis Area Detail Roadway Departure
- Of 98 roadway departure fatal/incapacitating crashes, only 9 occurred in snowy weather; 14% of injuries occurred during snow
 - One-third of fatal/incapacitating roadway departure crashes and 15% of injury crashes involved alcohol
 - More than 50% of fatal/incapacitating injury roadway departure victims were not belted; 27% of injury crash victims were unbelted
 - Majority of roadway departure crashes are on interstates; 15-19% on county roads
 - 1/3 of injury crashes (roadway departure) involve young drivers' 16% of fatal/incapacitating involve age 45-49
 - Factors involved: speed, careless/inattentive driving, alcohol
- CAMBRIDGE**
STATISTICS

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Potential Emphasis Area Detail Young Drivers (16-24)

- Among young drivers ages 18-20 experienced the most serious crashes
- Almost 1/4 of young driver injury crashes involved alcohol or drugs (14% of fatal/incapacitating)
- Young Driver crash factors: speed, alcohol, careless/inattentive driving, failed to yield, disregarded traffic signs
- 41% of fatal/incapacitated young driver occupants were unbelted
- 17% of injured young driver survivors were unbelted

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Potential Emphasis Area Intersections

- Intersection fatal/incapacitating crashes – 36% at unsignalized intersections, 36% at stop sign
- Intersection injury crashes – 34% at uncontrolled intersections, 36% at signals, 26% at stop sign
- 26% of fatal/incapacitating crashes at intersections involve ages 55-64
- 32% of injury crashes at intersections involve young drivers (age 15-24)



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STATISTICS

Potential Emphasis Area Older Drivers (65+)

- Older driver factors:
 - » Failure to yield
 - » Disregarded traffic signs
 - » Speed
 - » Careless/inattentive
- More than a third of fatal/incapacitated older driver victims were not belted
- Most older fatal/incapacitating crashes involve single vehicle
- Older first harmful event – collision with another vehicle
- Most older injury crashes involve multiple vehicles

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STATISTICS

Potential Emphasis Area Inattentive

- Most inattentive fatal/incapacitating crashes on Interstates (9) and County roads (5)
- Largest age groups for inattentive fatal/incapacitating:
 - » 45-49 (5)
 - » 20-24(4)
- Largest age group for inattentive injury crashes: 15-19 (59)
- Most inattentive injury crashes on local streets (67) and U.S. Highways (46)
- Slightly more males involved in inattentive crashes

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STATISTICS

Potential Emphasis Area Occupant Protection

- Nearly 50% of fatal/incapacitated victims were unbelted
- 68% of fatal/incapacitated unbelted victims were male; majority of unbelted injuries (56%) involved males
- 25% of injury victims were unbelted
- Age 15-19 largest category of unbelted injuries



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PLANNING

Emphasis Area Voting

- Each person gets 10 sticker “dots”
- Use them to select your preferred emphasis areas for Butte-Silver Bow, based on data presented
- You can put them all on one area or across multiple areas
- The goal is to select up to 3 Emphasis Areas



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PLANNING

Summary of Emphasis Area Voting Results

- Inattentive -15
- Unbelted – 14
- Intersection – 14
- Young -13

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MULTIPLY

Next Steps

Safety Summit

- Set Date
- Identify potential locations

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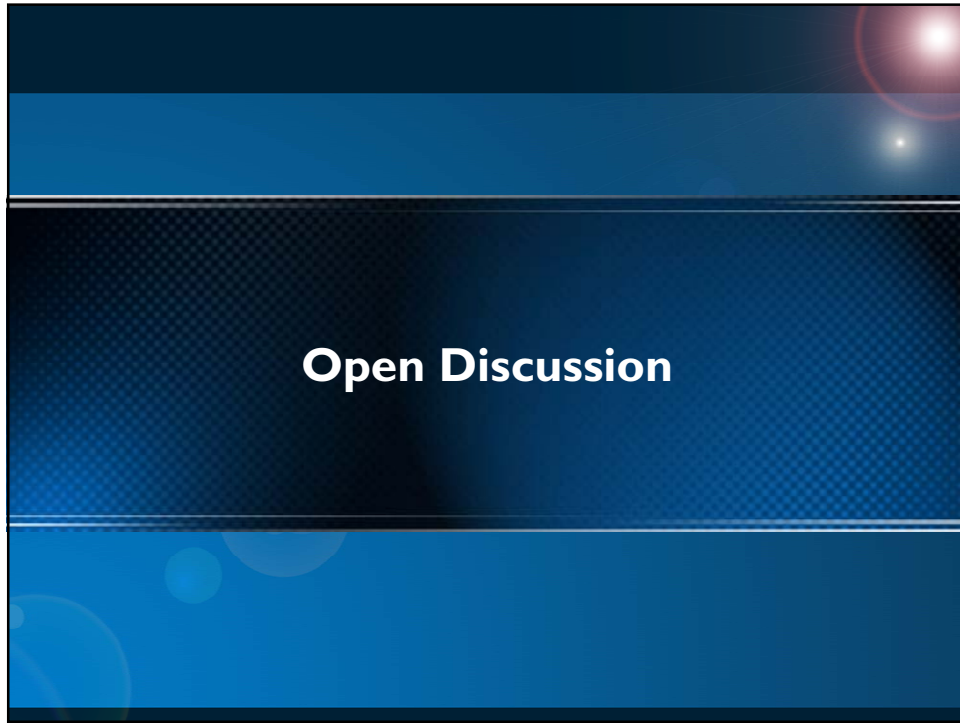
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Next Steps

- Define current safety activities in emphasis areas
- Safety Summit
 - » Finalize date/location for Safety Summit
 - » Determine how to promote Safety Summit
 - » Determine groups individuals to invite to Safety Summit
- Homework:
 - » What safety programs are currently in place?
 - » What more should or could be done?

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Butte-Silver Bow TSAC Meeting 3

presented to

Butte-Silver Bow Transportation Safety Advisory Committee

presented by

Cambridge Systematics, Inc.

Audrey Wennink

May 15, 2012

Transportation leadership you can trust.



Agenda

- Where we are in the CTSP Process - Audrey
- Current Community Emphasis Area Safety Activities - All
- Finalization of CTSP goal - All
- Safety Summit Planning – All
- Initial Brainstorming of Potential New Approaches - All

Where are we in the CTSP Process



Work Plan and Timeline

Kickoff Meeting	March
Establish Goal and Select Emphasis Areas	April
Identify Current Strategies	May
Safety Summit	June
Draft Plan	July
Final Plan	August

← We are here



Current Community Safety Activities

- » Younger
- » Inattentive
- » Unbelted
- » Intersections



5

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UNIVERSITIES

Current Community Safety Activities

Younger



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UNIVERSITIES

Younger Safety Activities

- Mariah's Challenge – young driver education
 - » Pledge to have no MIP; scholarship incentive
- Health Department
 - » Responsible Alcohol Sales and Service (RASS) – state law
 - » MIP training
 - » Education in schools – grants
- School Resource Officers
 - » Curriculum – alcohol/MIP
 - » Funded by sheriff's office/school district

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Younger Drivers Safety Activities

- Teens Advocating Safe Community – middle school
 - » Frank Rosen
- Safe Journeys Home curriculum for teachers – May 2012
 - » Education for students on navigating traffic
 - » K-8
- Safe Routes To School – started 2011
- Parent Game Night
 - » entertain the kids
 - » Parents education

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MASSACHUSETTS

Younger Driver Safety Programs

- Alive @25
 - » Highway Patrol instructors
 - » Monthly training – participants come at the direction of the court only (4hrs on Saturdays)
- Buckle Up Coalition
 - » Driver's Ed instructors given seatbelt presentations
 - » High school graduation materials have Click It Don't Risk It
- Drivers Ed curriculum
 - » Working to incorporate alcohol information

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Younger Driver Safety Programs

- Graduated Driver Licensing cards for law enforcement? Not used in BSB
- Freshman/sophomore education to health classes before prom – all day program
 - » Sign commitment to Buckle Up card
- MT Tech education/test on alcohol – required for matriculation
 - » Not sure if driving component is included
- Kiwanis bike safety/helmet giveaway

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Young Driver Safety Activities

- State Farm has DVD they give to young drivers

Current Community Safety Activities

Inattentive



Inattentive Safety Activities

- Handheld electronic device ban
 - » \$100 citation
 - » Month of law enforcement stops/warnings at kickoff
- Judicial system
 - » Not being enforced in the city court – all citations
 - » Judge Sweeney
- Rumble strip policies –
 - » MT policy -anything over 4ft shoulders gets rumble strip – outside of urban areas

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Inattentive Safety Activities

- Passengers in cars for younger drivers
 - » GDL has restriction on # of passengers
- Employer policies
 - » State/BSB have policies against cellphone use while driving
 - » Need enforcement of policies/consequences
 - » *Explore among employers – e.g. among mining companies there is zero tolerance for alcohol*
 - » Commercial insurance for vehicles generally requires such policies

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Inattentive Safety Activities

- MT Tech students – most come from very small towns; don't have driving skills for urban areas (e.g. don't check rearview mirror)
- To reach teens, need to educate early
- Used to have educational program in grade schools – discontinued
- Peer to Peer education program is being researched/tested by MDT
- Wile E. Coyote comes to 1st-3rd grade classes

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Current Community Safety Activities

Occupant Protection



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Occupant Protection Safety Activities

- State/city vehicle operators need to wear safety belts – what is the consequence?
 - » MDT/Silver Bow has a policy on safety belts
- Training on child safety seat installation
 - » There are local trained technicians
 - » Have events at health fairs
 - » Nurse must ensure carseat is correctly installed when baby goes home from hospital – but most nurses are not certified techs
 - » There is a good ad about parents not buckling up
- Buckle Up MT

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PUBLIC SAFETY

Occupant Protection

- Seat Belt Enforcer
 - » Use at special events
 - » Evel Knievel Days
 - Wile E. Coyote event
- October – Teen Safety Week/Red Ribbon Week
- Drivers Education is best opportunity to reach teens

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PUBLIC SAFETY

Current Community Safety Activities

Intersections



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Intersections Safety Activities

- Traffic enforcement – 8am – 8pm
 - » Sit at intersections at times – e.g. Stop signs
 - » Don't observe traffic lights- red light running
- Automated enforcement of red-light running is not permitted in MT
- HP reviews high crash locations
- Cities invited to submit problem locations to the state
- BSB has many uncontrolled intersections. Drivers don't slow down/know who has right of way - young drivers at risk

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Intersections

- Middle age drivers may not have current knowledge of practices at unsignalized intersections
- Parking ordinances – visibility at intersections
- Flashing light at high school pedestrian crossing has been ordered but not delivered yet
- Pedestrian crossing issues on arterials
- On major streets, require pedestrians to push button to get pedestrian signal
- Want to get countdown timers

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MASSACHUSETTS

Intersection Strategies

- Need for education of pedestrians on crossing
- Pedestrian always legally has the right of way – need to educate drivers – define legal guidance
- BSB pedestrians need to use crosswalks
- At school crosswalks, start implementation of crossing guards? Gina is evaluating this now. School district budget issue. Need volunteers?

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MASSACHUSETTS

Butte-Silver Bow Safety Goal

- Reduce all Butte-Silver Bow crashes by 20% in five years
 - » Reduction of 134 crashes per year
 - » Baseline is 2006-2010 five-year average



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Safety Summit Planning

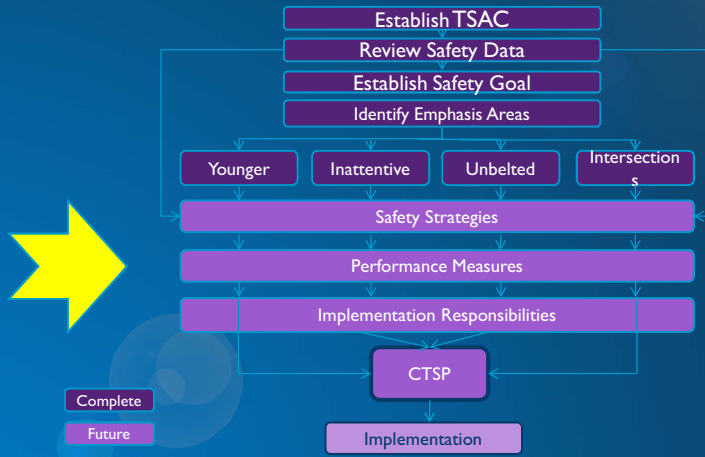
- Purpose
- Invitation list
- Date/time
- Location
- Promotion



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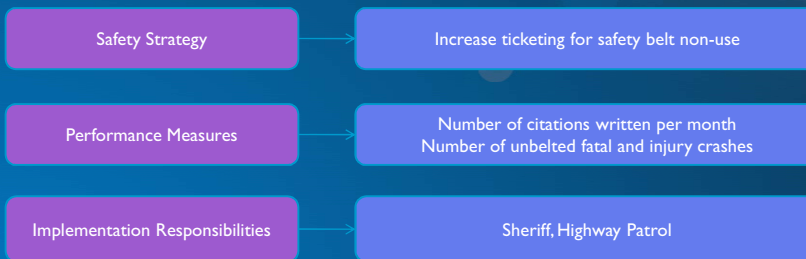
Safety Summit Planning - Purpose



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Safety Summit Planning - Example

Occupant Protection



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Safety Summit Planning – Invitation List

Name	Representing
Leo McCarthy	Mariah's Challenge
Dan Haffney	BSB Health Dept. – Minors in Possession
Lisa Andrews	BSB DUI Task Force
Marko Lucich	BSB Chamber of Commerce
Cathy Isakson	Montana Tech – Wellness Director
Aimee Haffey	Anaconda Community Intervention
John Metz	School District #1-Driver's Education
Rice, Voss, Wyant, Ruane	Alive@25 Instructors
TBD	Verizon, Alltel, others?
Jen Phillips, others?	St. James Healthcare
Tim Trainor	Montana Standard
Terri Hocking	BSB Health Department
TBD	Belmont Senior Center & others

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Safety Summit Planning – Invitation List, cont.

Name	Representing
John Perino	Silver Bow Tavern Association
Tom Mocilac	AARP Defensive Driving Instructor
Cindy Lammi	BSB County Justice Court Administrator
Mike Clague	BSB- Deputy County Attorney
Debra Williams	BSB DUI Court- Justice of the Peace
Jimm Kilmer	BSB County Sheriff
TBD	School Superintendent/Principal
TBD	Local trainer for Responsible Alcohol Sales & Service
TBD	Kiwanis, Elks
TBD	MT Tech radio

Others?

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Safety Summit Planning -Date/Time

- Tentative Date: Tuesday, June 19, 2012 – 5 to 8pm
- Time that allows most invitees to participate?
 - » For many people transportation safety will not be their primary job responsibility
 - » Summit will be 3 hours



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Safety Summit Planning - Location

- Need to accommodate up to 40-50 people
- Tables for 4 breakout group discussions
- PowerPoint presentation capabilities
- Easily accessible



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Safety Summit Planning - Format

- Overview presentation
- Conduct two emphasis area team discussions at a time or do 4 simultaneously, depending on attendance
 - » Emphasis area team leaders
- Groups report out



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Safety Summit Planning Promotion to the Public

- Newspaper
 - » Article on CTSP process?
 - » Calendar of events
- Radio/TV
- Email distribution lists
- County Government website
- Other ideas?



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Potential Initial Safety Ideas

- Information to guide Safety Summit
 - » Where are there obvious gaps in safety activities?
 - » Are there specific safety strategies you want to consider?
 - » Which key groups are not involved in current safety programs but should be?

Younger

Inattentive

Occupant
Protection

Intersections

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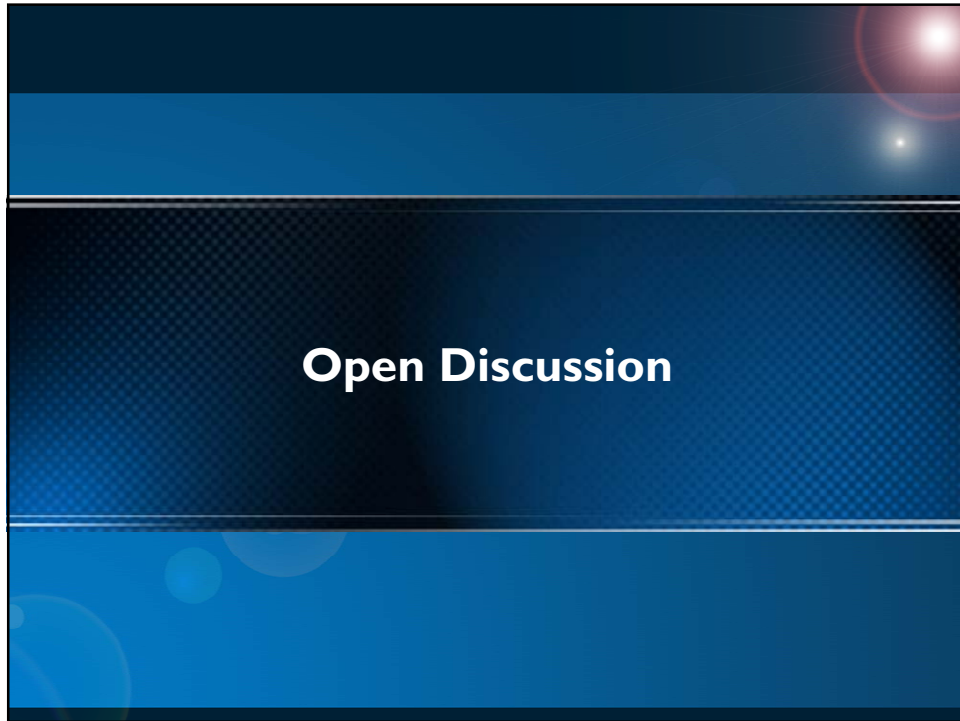
Next Steps

- Secure Safety Summit venue
- Distribute invitations to Safety Summit
- Promote Safety Summit to public
- Prepare materials for Summit
 - » Data fact sheets on each emphasis area
 - » Proven effective safety strategies in each emphasis area



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Butte-Silver Bow TSAC Meeting 4

presented to

Butte-Silver Bow Transportation Safety Advisory Committee

presented by

Cambridge Systematics, Inc.

Audrey Wennink

August 13, 2012

Transportation leadership you can trust.



Agenda


- Review strategies in four emphasis areas
 - » Strategy definition/purpose
 - » Action steps
 - » Leader(s)
 - » Stakeholders
 - » Timeline

- Next Steps
 - » Emphasis Area Teams definition
 - » Plan approval
 - » Implementation

Review Strategies

Next Steps - Emphasis Area Teams

- Define Emphasis Area Team Leaders
- Define Emphasis Area Team Members



4

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Next Steps – Plan Approval

- Local Emergency Planning Committee August 22
- Engage other stakeholders/groups as needed August/September
- Draft Community Transportation Safety Plan presentation to
 - » TSAC
 - » Council of CommissionersEarly October
- Final Plan Late October

5

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TRANSPLANNERS

Next Steps – Implementation

- Emphasis Area Teams assign strategies and action steps
- Begin to implement strategies
- Prepare Progress Report to MDT in Fall 2013
 - » Implementation status
 - » Crash data



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TRANSPLANNERS

Butte-Silver Bow Community Transportation Safety Plan

presented to
Butte-Silver Bow Transportation Safety Advisory Committee

presented by
Cambridge Systematics, Inc.
Audrey Wennink

October 17, 2012

Transportation leadership you can trust.



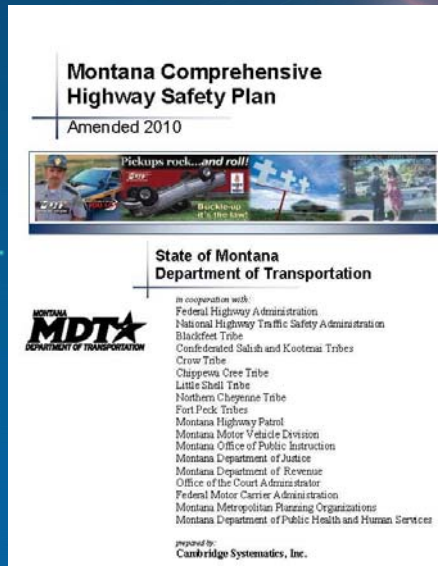
Agenda

- **Community Transportation Safety Plan Development Process**
- **TSAC Role and Responsibilities**
- **Crash Data Review**
- **Emphasis Areas**
- **Safety Strategies and Performance Measures**
- **Implementation and Reporting**



MT Comprehensive Highway Safety Plan

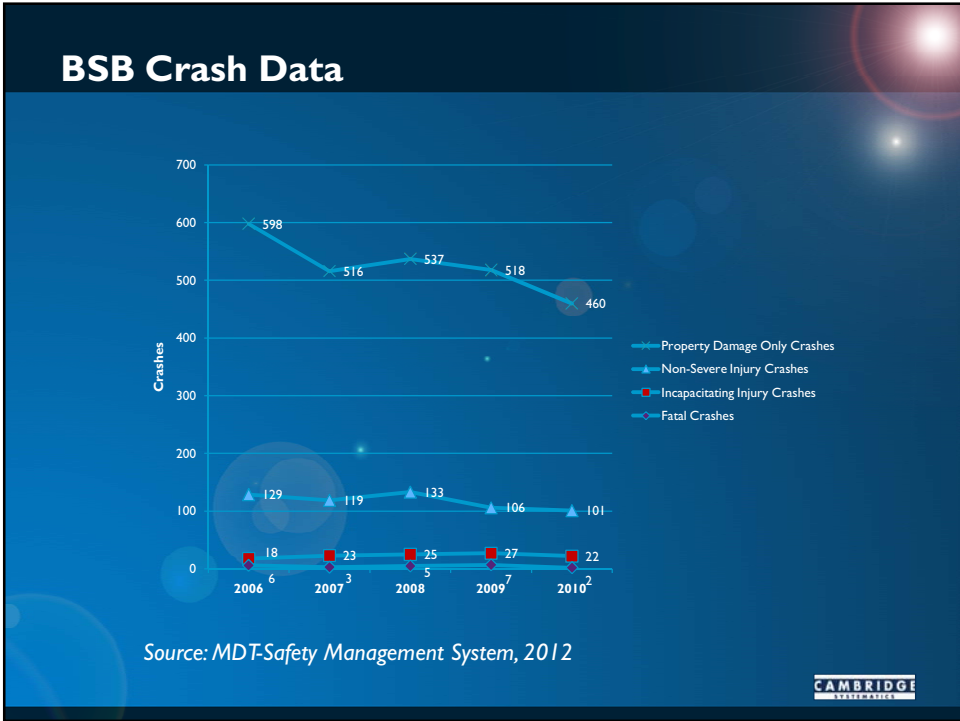
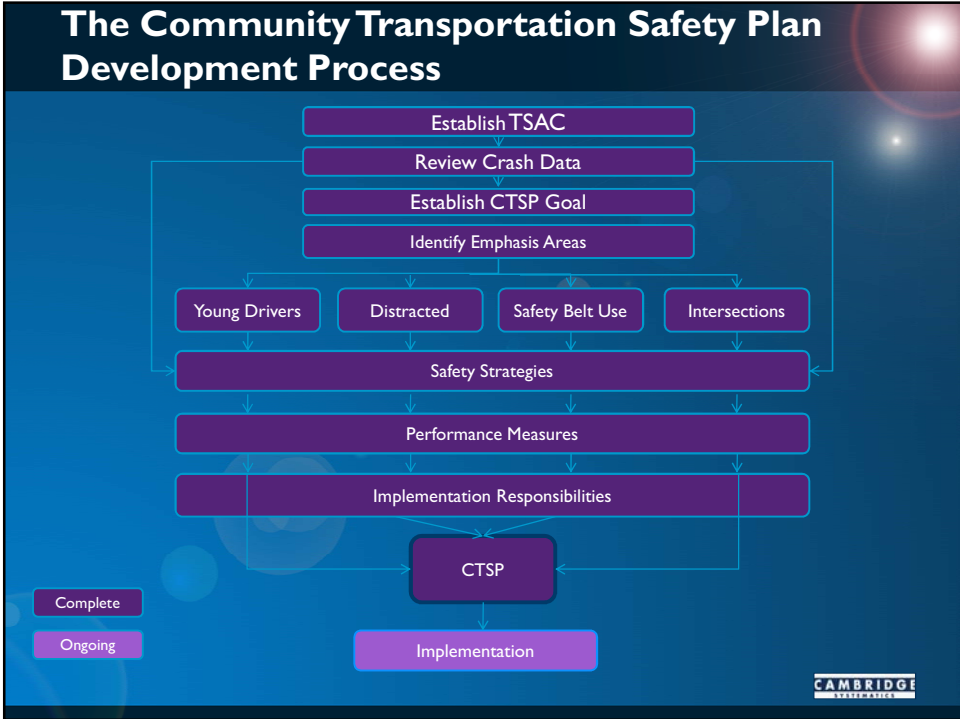
- Developed through a coordinated, comprehensive, data-driven process
- 12 Emphasis Areas including Urban Area Crashes



Addressing Transportation Safety In BSB

- Butte-Silver Bow submitted a letter of request to MDT for planning assistance in developing a CTSP
 - » Reduce traffic crashes resulting in injury & death
 - » Improve quality of life
- Designed to be a comprehensive data-driven process to address transportation safety issues





Butte-Silver Bow Five -Year Averages (2006-2010)

Annual Crashes

Fatal Crashes	Incapacitating Injury Crashes	Non-Severe Injury Crashes	Property Damage Only Crashes	Total Crashes
5	23	118	526	671

Source: MDT-Safety Management System, 2012

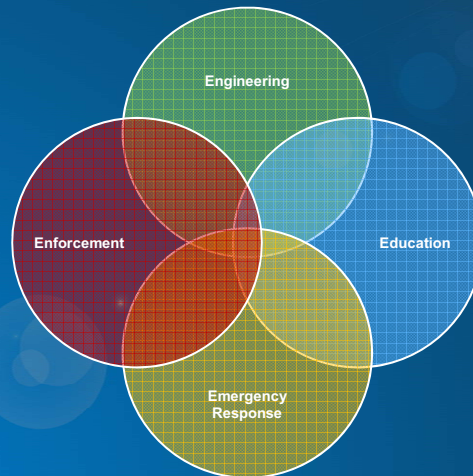
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SURVEILLANCE

Safety Goal

Reduce the five-year average of all crashes in BSB by 20% by 2018 (from an average of 671 crashes per year to an average of 537 crashes per year)

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SURVEILLANCE

“The 4 E’s of Safety”

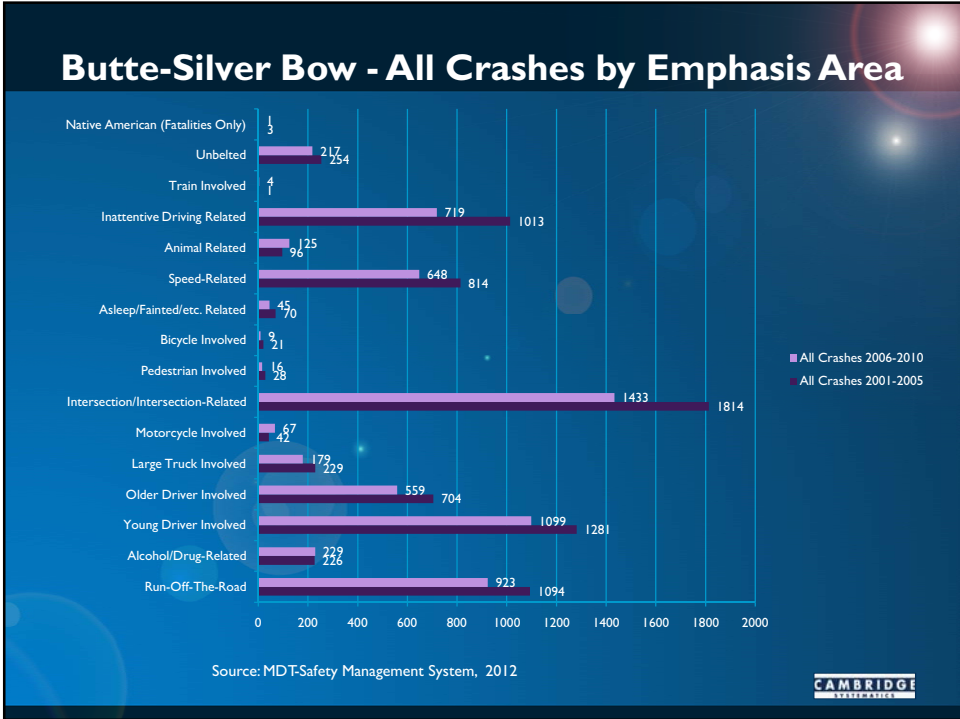


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What is an “Emphasis Area?”

- A priority safety issue for Butte-Silver Bow based on data and community input
- A safety issue for which community focus and resources will be applied with the intention of improving transportation safety and achieving the goal(s) of the CTSP
- Emphasis Areas can change over time – to reflect progress and changing conditions or needs

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Selected Butte-Silver Bow Safety Emphasis Areas

- Distracted Drivers
- Occupant Protection/Safety Belt Use
- Intersections
- Young Drivers





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BSB Safety Strategies

- Customized to address the safety problem in BSB
- Developed by TSAC and community members during BSB Safety Summit
- Low Cost Strategies
 - » Increased coordination
 - » Increased staff focus on safety
 - » Low direct costs
 - » Funding opportunities
- Support of community members for implementation

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Distracted Driving Strategies

BSB Safety Strategies Distacted Driving

<p>1. Increase public information about cell phone ban and risks of distracted driving</p>	<ul style="list-style-type: none"> • Install signs at BSB entrances about handheld cell phone ban (underway). • Conduct outreach using educational materials from USDOT and other sources. • Conduct field survey of people violating ban and report results, potentially as school project, public service activity (e.g., Eagle Scouts). • Conduct public survey of beliefs about distracted driving and release results, potentially in combination with field survey results. • Develop letter to the editor in "Reader Speak". • Distribute NHTSA calendar of statewide safety communications campaigns to all safety partners in BSB. Distribute Key Messages to all safety partners during specific campaigns to ensure all communications with media are consistent. • When possible, incorporate traffic safety messages about inattentive driving into BSB Sheriff's daily enforcement press briefing, e.g., note if a serious crash involved inattention or other behavioral factor. • Develop education program involving simulation of distraction while driving. Target high school students.
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BSB Safety Strategies Distacted Driving

<p>2. Continue enforcement of cell phone use while driving ban, in combination with education</p>	<ul style="list-style-type: none"> • Continue to enforce cell phone citations and other distracted driving violations. • Coordinate increased enforcement blitzes with education campaigns in strategy 1. • Conduct positive reinforcement program (including awards and incentives) at high school by which students not using cell phones while driving are rewarded.
<p>3. Conduct outreach to business community on risks of distracted driving/pursue corporate policies</p>	<ul style="list-style-type: none"> • Customize available materials on the risks of distracted driving for use in BSB. • Conduct educational program with Chamber of Commerce on distraction with discussion of costs to employer. • Potentially initiate effort with large local employer such as Northwest Energy.



Occupant Protection/Safety Belt Use Strategies

BSB Safety Strategies Occupant Protection/Safety Belt Use

<p>I. Support enactment of a local primary safety belt law countywide</p>	<ul style="list-style-type: none">• TSAC to conduct outreach to state legislators to express support for state primary safety belt law in upcoming legislative sessions.• If statewide belt law does not pass in next legislative session, research legal requirements to establish a local ordinance (can include outreach to other Montana communities who are also considering a local law).
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BSB Safety Strategies Occupant Protection/Safety Belt Use

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| <p>2. Conduct increased community-wide public information and education on the importance of safety belt use (including peer-to-peer)</p> | <ul style="list-style-type: none"> • Continue emphasis in driver's education course. • Offer Alive@25 safety class at Montana Tech and Butte High School. • Engage MT Tech and utilize their organizational structure and communications vehicles in the promotion of transportation safety. • Potentially hold a "Seatbelt Award" event (given to someone who has survived a crash due to wearing of a safety belt) at MT Tech; engage college radio station and newspaper to promote/support. • Encourage safety belt use at senior centers and AARP/CarFit events. • Seek increased publicity for safety belt enforcement campaigns. • Distribute NHTSA calendar of enforcement and outreach campaigns and coordinate publicity among safety partners. • Seek to integrate messages into Sheriff's daily media briefings as possible. |
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BSB Safety Strategies Occupant Protection/Safety Belt Use

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| <p>3. Improve coordination between enforcement and prosecution</p> | <ul style="list-style-type: none"> • Initiate a discussion between local judges and law enforcement on the traffic safety problem and the impacts of dismissing safety belt tickets. Coordinate with State Traffic Safety Resource Prosecutor and utilize her services within BSB to support this meeting/discussion. • Encourage continued enforcement of secondary safety belt law. |
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Young Drivers Strategies

BSB Safety Strategies Young Drivers

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| <p>I. Promote parent participation in driver's education and Graduated Drivers Licensing (GDL)</p> | <ul style="list-style-type: none"> • Continue emphasis on safety in existing curriculum with particular emphasis on impaired driving and safety belts as appropriate. Ensure safety information is presented in parent meeting. • Determine extent of current parent participation in initial GDL meetings. • If parent/guardian does not attend parent meeting at initiation of driver's ed. Training, student's participation in class will be discontinued and registration fee will be forfeited. As of 2012, meeting is required at beginning of driver education class under Montana Administrative Rule. • Promote AAA Keys2Drive to program for parents, which provides materials to support parents' role while children are novice drivers. |
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BSB Safety Strategies Young Drivers

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| <p>2. Incorporate education on traffic safety into existing pre-high school classes and programs</p> | <ul style="list-style-type: none"> • Include parents in education program. • Review Safe Journeys Home curriculum and incorporate appropriate transportation safety messages as appropriate. • Sustain SJH program through Train the Trainers training program every two years. • Introduce into junior high school. • Pursue alternative venues such as community youth organizations, i.e., YMCA, after school groups. |
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BSB Safety Strategies Young Drivers

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| <p>3. Establish a peer-to-peer high school safety education program</p> | <ul style="list-style-type: none"> • Establish peer-to-peer safety program in Butte High School. • Identify existing student group (e.g., club or student government) to lead the initiative or establish new group. • Establish peer-to-peer education messages, events, communications methods (e.g., social media). • Sustain the program by planning activities through school year. |
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BSB Safety Strategies Young Drivers

4. Develop peer youth court for minor infractions

- Reach out to Lawrence County Teen Court (South Dakota) to research procedures currently in place.
- Coordinate with BSB Attorney and court system.
- Determine what legal issues need to be addressed (assuming youth court would not hear criminal or felony violations).
- Recruit volunteer attorneys who can act as Judge.
- Recruit youth volunteers who serve as prosecuting attorney, defense attorney.
- Establish protocols and schedules.
- Identify appropriate community service activities to be performed as sentences.
- Identify and coordinate with appropriate support programs (chemical dependency counseling, etc.).

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Intersection Strategies

BSB Safety Strategies

Intersections

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| <p>1. Conduct review of stop signs along key corridors</p> | <ul style="list-style-type: none"> • Review sign inventory to identify the needs for marking stop signs as 4 way vs. 2-way. • Develop plan for stop sign improvements (ensuring all are marked as all-way or 2-way). Focus on intersections with limited visibility. • Advocate for funding for sign upgrades. • Consider developing corridors with few stop signs for better traffic flow and other corridors with the same type of stop signs throughout. |
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MASSACHUSETTS

BSB Safety Strategies

Intersections

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| <p>2. Improve process by which the public can report maintenance and safety needs</p> | <ul style="list-style-type: none"> • Increase clarity and visibility on web site of phone number for maintenance department, and explanation of the process for resolving them. Promote public input on maintenance needs to use as data-gathering mechanism. • Establish a mechanism for feedback to residents on reported issues, (e.g., potentially collect the e-mail from the person reporting the problem and send an e-mail when improvement is made). • Provide weekly web posting of scheduled maintenance projects. |
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MASSACHUSETTS

BSB Safety Strategies

Intersections

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| <p>3. Develop a Road Safety Audit program</p> | <ul style="list-style-type: none"> • Train local staff and community transportation advocates (engineering, public works, bike/pedestrian advocates, emergency response, law enforcement) on the RSA Process. • Conduct RSAs on intersections defined in the 2005/2006 transportation plan and other high risk locations. Include local stakeholders, i.e., law enforcement, school representatives, EMS, and local residents. • Through Safe Routes to School elementary school bike/walk audits were done. These results can be used to identify low cost safety improvements to be implemented. |
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MASSACHUSETTS

BSB Safety Strategies

Intersections

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| <p>4. Continue process for integrating safety considerations into ongoing maintenance and construction program</p> | <ul style="list-style-type: none"> • Continue dedicated safety review as part of the maintenance program and project development process. Review safety resources to determine anticipated safety benefits of improvements. • Establish construction process that explicitly considers safety, including ensuring that when sidewalks are closed for construction, notice is provided to pedestrians at the preceding corner. • Establish process for tracking before/after crash results at locations where safety improvements are made. |
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MASSACHUSETTS

BSB Safety Strategies

Intersections

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| <p>5. Enhance process for maintaining vision clearance at intersections</p> | <ul style="list-style-type: none"> • Promote public reporting of locations with vision clearance issues via enhanced DPW reporting process. Increase visibility of information for property owners on the web site. • Aggressively enforce ordinance prohibiting snow storage in roadway near intersections where inter-section sight distance is compromised by private property owners. Modify ordinance to prohibit clearance of snow such that it is placed in a travel lane. • Conduct increased public communications on snow clearance ordinance, highlighting safety impacts of reducing intersection visibility, e.g., radio public service announcements, BSB web site postings |
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MONTANA

BSB Safety Strategies

Intersections

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| <p>6. Establish policy for consideration of roundabouts when intersections undergo rehabilitation or construction</p> | <ul style="list-style-type: none"> • Establish policy that consideration of a roundabout alternative is a requirement of all intersection analyses, including those privately funded by special increment financing. Construction of roundabouts has been officially encouraged by the Montana Legislature. |
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CAMBRIDGE
MONTANA

BSB Safety Strategies

Intersections

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| <p>7. Conduct ongoing public education on good driving practices</p> | <ul style="list-style-type: none"> • Conduct an editor's briefing with news media outlets to present findings of CTSP and strategies for public education. Seek to collaborate on series about safe driving practices. • Conduct communications on key driving issues, including: <ul style="list-style-type: none"> ▪ Requirement to yield to pedestrians in crosswalks ▪ Proper use of headlights after sunset and during inclement weather. ▪ Use of turn signals when changing lanes and turning at intersections. ▪ Correct turn procedures at intersections. |
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MASSACHUSETTS

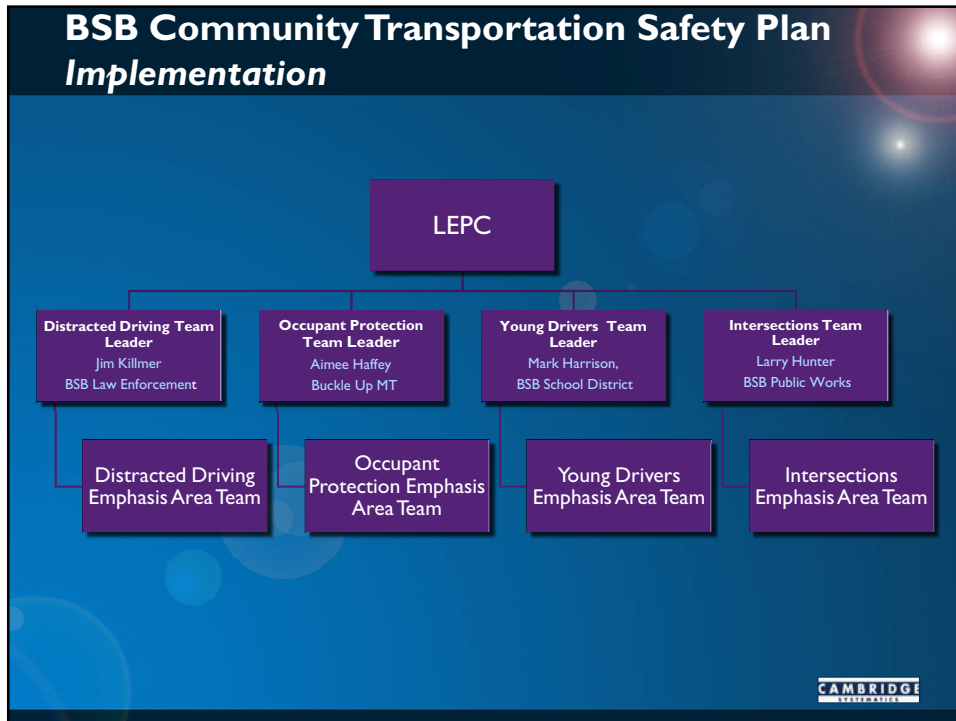
BSB Safety Strategies

Intersections

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| <p>8. Conduct speed, red-light running and stop sign enforcement at targeted locations</p> | <ul style="list-style-type: none"> • Establish a process for law enforcement (BSB Law Enforcement Department) identification of target intersections for increased enforcement, potentially quarterly or monthly. |
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MASSACHUSETTS

BSB Community Transportation Safety Plan Implementation



Implementation Process

- Emphasis Area Teams will
 - » Assign responsibilities for action steps
 - » Undertake the action steps for each strategy
 - » Meet regularly to assess progress and relevant developments
 - » Report to LEPC quarterly
 - » Modify or develop new strategies as appropriate depending on resources and progress toward achieving goals

Community Transportation Safety Plan Butte-Silver Bow Annual Reporting

- Track Performance Measures in each Emphasis Area, e.g.
 - » Number of total crashes
 - » Number of fatal/incapacitating injury crashes
 - » MDT can assist with crash data and analysis
- Plan Sponsor will report progress to MDT Annually



CAMBRIDGE
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Questions?



Appendix G

Safety Summit Data Handouts



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Community Transportation Safety Plan

Traffic Safety Data (2006-2010)

Inattentive

Overview

From 2006 to 2010, there were 719 crashes in Butte-Silver Bow involving an inattentive driver. Of those, 20 crashes involved a fatality or incapacitating injury and 149 involved a non-severe injury. Being an inattentive driver can mean being distracted by a cell phone or other electronic device in the car, other passengers, or by something that captures the attention outside the car.

Where

Nearly half of the fatal/incapacitating crashes occurred on the interstate but 41 percent of all injury crashes occurred on local streets.

Roadway Type	Fatal/ Incapacitating Crashes	Non-Severe Injury Crashes	Total Injury Crashes	Percent of all Injury Crashes
INTERSTATE	9	20	29	17%
US HIGHWAY	2	46	48	28%
STATE HIGHWAY	1	14	15	9%
COUNTY ROADS	5	2	7	4%
LOCAL STREET	3	67	70	41%
TOTAL	20	149	169	

Who

Drivers By Gender	Fatal/ Incapacitating Crashes	Non-severe Injury Crashes	TOTAL Injury Crashes	Percent
MALE	16	151	167	55%
FEMALE	11	123	134	45%
TOTAL	27	274	301	

55 percent of inattentive crashes with an injury involved males.

Drivers By Age	Fatal/ Incapacitating Crashes	Non-Severe Injury Crashes	Total Injury Crashes	Percent of all Injury Crashes
15 - 19 YRS	2	59	61	18%
20 - 24 YRS	4	27	31	9%
25 - 29 YRS	2	29	31	9%
30 - 34 YRS	1	15	16	5%
35 - 39 YRS	2	20	22	7%
40 - 44 YRS	1	16	17	5%
45 - 49 YRS	5	20	25	8%
50 - 54 YRS	3	26	29	9%
55 - 59 YRS	2	18	20	6%
60 - 64 YRS	3	10	13	4%
65 - 69 YRS		9	9	3%
70 - 74 YRS		9	9	3%
75+ YRS	2	17	19	6%
Not Stated	27	1	28	8%
Total	54	276	330	

Nearly one- fifth of inattentive drivers in an injury crash were age 15-19, and 37% were under 30.

How

Among the most severe inattentive crashes, 70 percent involved only one vehicle. Among less severe crashes, 81 percent involved multiple vehicles.

Number of Vehicles	Fatal/ Incapacitating Crashes	Percent	Non- Severe crashes	Percent
SINGLE VEHICLE	14	70%	43	19%
MULTIPLE VEHICLE	6	30%	126	81%
TOTAL	20		169	

- Nearly a third (8 of 27) fatal/incapacitating crashes, and 16 out of 282 non-severe injury crashes involved a vehicle roll-over.
- Two severe and two non-severe inattentive crashes involved a pedestrian.
- A number of the inattentive crashes involved collision with a fixed object, such as a fence or guardrail.



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Community Transportation Safety Plan

Traffic Safety Data (2006-2010)

Occupant Protection

Overview

From 2006 to 2010 there were 77 fatal/incapacitating crashes and 217 non-severe injury crashes involving unbelted passengers in Butte-Silver Bow.

How

	Belt use by sobriety	Unbelted/Improper Use	Belted	% Unbelted/Improper Use	% Belted
Fatal/Incapacitating	No alcohol or drugs	71	106	40%	60%
	Yes alcohol or drugs	44	23	66%	34%
Non-severe injury	No alcohol or drugs	140	481	23%	77%
	Yes alcohol or drugs	27	30	47%	53%

The percentage of unbelted persons is significantly higher when alcohol or drugs are used.

Where

Nearly half (46%) of fatal/incapacitating injury crashes between 2006 and 2010 involved an unbelted passenger. Two thirds of fatal/incapacitating injury crashes on county roads were unbelted. One quarter of non-severe injury crashes involved an unbelted passenger.

	Fatal/ Incapacitating Crashes By Roadway				Non-Severe Injury Crashes by Roadway			
	Unbelted	Belted	% Unbelted	% Belted	Unbelted	Belted	% Unbelted	% Belted
INTERSTATE	32	46	41%	59%	24	120	17%	83%
US HIGHWAY	2	3	40%	60%	27	74	27%	73%
STATE HIGHWAY	8	9	47%	53%	16	44	27%	73%
COUNTY ROADS	16	8	67%	33%	15	23	39%	61%
LOCAL STREET	6	10	38%	63%	38	99	28%	72%
TOTAL	64	76	46%	54%	120	360	25%	75%

Who

Age

For fatal/incapacitating crashes, all age groups from 15 to 64 had rates of unbelted passengers of more than 40 percent. Among non-severe injury crashes unbelted injuries occurred in 25% of crashes.

Fatal/Incapacitating Injury Crashes					Non-Severe Injury Crashes			
Injuries By Age	Number Unbelted/ improperly belted	Number Belted	% Unbelted	% Belted	% Unbelted	Number belted	% Unbelted	% Belted
0 - 14 YRS	8	15	35%	65%	13	40	25%	75%
15 - 19 YRS	21	20	51%	49%	44	96	31%	69%
20 - 24 YRS	18	17	51%	49%	33	67	33%	67%
25 - 34 YRS	16	19	46%	54%	20	80	20%	80%
35 - 44 YRS	12	15	44%	56%	22	74	23%	77%
45 - 54 YRS	20	16	56%	44%	20	64	24%	76%
55 - 64 YRS	12	14	46%	54%	16	47	25%	75%
65+ YRS	11	18	38%	62%	5	43	10%	90%
TOTAL	118	134	47%	53%	0	6	25%	75%

Gender

Males comprised two thirds of unbelted people in fatal/incapacitating crashes, and 56 percent of unbelted people in non-severe injury crashes.

Fatal and Incapacitating Crashes					Non – Severe Injury Crashes			
Drivers By Gender	Unbelted	Belted	% Unbelted	% Belted	Unbelted	Belted	% Unbelted	% Belted
Male	80	85	68%	63%	96	224	56%	43%
Female	38	49	32%	37%	76	291	44%	57%
TOTAL	118	134			172	515		



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Community Transportation Safety Plan

Traffic Safety Data (2006-2010)

Younger Drivers (Age 16-24)

Overview

From 2006 to 2010 there were 1,099 crashes involving drivers age 16-24. Of those, 32 crashes involved a fatality or incapacitating injury and 212 involved non-severe injury.

Impairment

Nearly 30 percent of fatal/incapacitating crashes for those age 18-24 involved alcohol or drugs

Younger Drivers By Sobriety		16-17 YO Driver	18-20 YO Driver	21-24 YO Driver	Total of all Injury Crashes
Fatal/ Incapacitating	No alcohol or drugs	13	20	10	43
	Yes alcohol/drugs	2	8	4	14
	Total	15	28	14	57
Percent severe crashes involving alcohol/drugs		13%	29%	29%	25%
Non-severe injury	No alcohol or drugs	120	168	106	394
	Yes alcohol and drugs	6	9	16	31
	Total	126	177	122	425
Percent non-severe injury involving alcohol		5%	5%	13%	7%
% of injury crashes involving alcohol		6%	8%	15%	9%

Other Factors

- 45 (9%) of injury crashes involving young drivers resulted in an overturned vehicle.
- A number of younger driver injury crashes involve colliding into fixed objects, such as guardrails, barriers, and parked cars.
- Top contributing circumstances for injury crashes included:
 - Careless driving -14%
 - Inattentive driving – 12%
 - Speeding -8%
 - Failure to yield -9%

Number of Vehicles

Number of Crashes by Vehicles Involved	Fatal/Incapacitating Crashes	Fatal /Incapacitating %	Non-Severe Injury Crashes	Non-Severe Injury %
SINGLE VEHICLE	20	59%	55	21%
MULTIPLE VEHICLE	14	41%	206	79%
Total	34		261	

The majority of the most severe young driver crashes involve a single vehicle, while the majority of non-severe injury crashes involve multiple vehicles.

Safety Belt Use

Among 18-20 year old drivers, 50 percent of fatal/incapacitating crashes involved an unbelted passenger, and among 21-24 year old drivers, 60 percent of severe crashes involved an unbelted passenger.

	Younger Driver Safety Belt Use (all injured people involved)	16-17 YO Driver	18-20 YO Driver	21-24 YO Driver	TOTAL
Fatal/Incapacitating	Used safety belt	20	14	8	42
	Did not use safety belt	7	14	12	33
Total		27	28	20	75
% non-use		26%	50%	60%	44%
Non-severe injury	Used safety belt	41	97	59	197
	Did not use safety belt	20	25	24	69
		61	122	83	266
% non use		33%	20%	29%	26%



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Community Transportation Safety Plan

Traffic Safety Data (2006-2010)

Intersections

Overview

From 2006 to 2010 there were 1,433 intersection crashes in Butte-Silver Bow. Of these, 25 involved a fatality or incapacitating injury and 266 involved a non-severe injury.

Who

Drivers By Age	Fatal/ Incapacitating Crash	% Fatal/ Incapacitating	Non-severe crash	% Non-severe
0 - 14 YRS	2	3%	3	1%
15 - 19 YRS	7	9%	107	20%
20 - 24 YRS	3	4%	65	12%
25 - 29 YRS	3	4%	46	9%
30 - 34 YRS	3	4%	26	5%
35 - 39 YRS	1	1%	29	5%
40 - 44 YRS	1	1%	41	8%
45 - 49 YRS	2	3%	41	8%
50 - 54 YRS	2	3%	35	7%
55 - 59 YRS	5	6%	35	7%
60 - 64 YRS	5	6%	28	5%
65 - 69 YRS	2	3%	21	4%
70 - 74 YRS		0%	15	3%
75+ YRS	4	5%	39	7%
NOT STATED	40	50%	2	0%
	80		533	

The age category with the largest number of intersection crashes is age 15-19. Drivers age 20-24 also had a significant number of intersection crashes.

Where

The majority of injury crashes occurred on straight, level roads. One quarter of non-severe injury crashes occurred on straight roads with a hill.

Crashes By Grade/Horizontal Alignment	Severe Injury Crashes	% Severe Injury	Non-Severe Injury	% Non-Severe Injury
ROAD STRAIGHT : LEVEL	18	72%	179	67%
ROAD CURVES : LEVEL	2	8%	12	5%
ROAD STRAIGHT : GRADE	2	8%	66	25%
ROAD CURVES : GRADE	3	12%	9	3%
NOT STATED	0	0%	0	0%
TOTAL	25		266	

Crashes By Traffic Controls	Severe Injury Crashes	% Severe Injury	Non-Severe Injury	% Non-Severe Injury
NONE	9	36%	90	17%
TRAFFIC SIGNALS	3	12%	95	18%
SIGNALS NOT WORKING	0	0%	0	0%
SIGNALS FLASHING	1	4%	4	1%
FLASHER	0	0%	1	0%
FLASHER NOT WORKING	0	0%	0	0%
STOP SIGN	9	36%	70	13%
YIELD SIGN	0	0%	2	0%
RAILROAD SIGNAL	0	0%	0	0%
RAILROAD SIGNALS NOT WORKING	0	0%	0	0%
RAILROAD GATES	0	0%	0	0%
RAILROAD GATES NOT WORKING	0	0%	0	0%
RR X-BUCK	0	0%	0	0%
SIGNS & PAVEMARK	0	0%	0	0%
TRAFFIC SIGNS	3	12%	4	1%
PAVEMENT MARKINGS	0	0%	0	0%
TRAFFIC CONTROL DOWN/MISSING	0	0%	0	0%
NO PASSING ZONE	0	0%	0	0%
NO SIGNS, NO PAVEMENT MARKINGS	0	0%	0	0%
OTHER	0	0%	266	50%
TOTAL	25		532	

More than one third of severe injury crashes occurred at intersections without a signal or stop sign. Another third of severe crashes occurred at intersections with a stop sign.

The majority of crashes occurred during clear weather.

How

Crashes By Weather Condition	Severe Injury Crashes	% Severe Injury	Non-Severe Injury	% Non-Severe Injury
FOG,SMOG,SMOKE	0	0%	3	1%
SLEET,HAIL,FREEZING RAIN,DRIZZLE	1	4%	4	2%
BLOWING SNOW	1	4%	4	2%
SEVERE CROSSWINDS	0	0%	1	0%
CLEAR	14	56%	168	63%
CLOUDY	6	24%	73	27%
RAIN	2	8%	7	3%
SNOW	1	4%	6	2%
BLOWING SOIL	0	0%	0	0%
NOT STATED	0	0%	0	0%
TOTAL	25		266	

Drivers By Sobriety	Severe Injury Crashes	% Severe Injury	Non-Severe Injury	% Non-Severe Injury
NO ALCOHOL OR DRUGS PRESENT	37	93%	508	95%
YES ALCOHOL AND/OR DRUGS PRESENT	3	8%	23	4%
NOT REPORTED		0%	2	0%
TOTAL	40		533	

Alcohol/drugs is not a major factor in intersection crashes

The more significant intersection crash factors are:

- Failure to yield
- Inattentive
- Careless
- Speeding

Contributing Circumstances Involving Driver	Severe Injury Crashes	% Severe Injury	Property Damage Only Crashes	% Property Damage Only
NONE	16	31%	1097	43%
OTHER*(DRIVER)	1	2%	41	2%
DRUGS	0	0%	1	0%
ALCOHOL	2	4%	38	1%
FAILED TO YIELD RIGHT OF WAY	9	17%	359	14%
DISREGARDED TRAFFIC SIGNS	3	6%	126	5%
EXCEEDED STATED SPEED LIMIT	2	4%	4	0%
TOO FAST FOR CONDITIONS	3	6%	124	5%
MADE AN IMPROPER TURN	1	2%	55	2%
WRONG SIDE OR WRONG WAY	0	0%	4	0%
FOLLOWED TOO CLOSELY	0	0%	78	3%
IMPROPER LANE CHANGE	0	0%	24	1%
IMPROPER BACKING OPERATION	0	0%	12	0%
IMPROPER PASSING	0	0%	10	0%
IMPROPER SIGNALS	0	0%	2	0%
IMPROPER PARKING	0	0%	0	0%
FELL ASLEEP, FAINTED ETC.	3	6%	2	0%
LIC. REST. NOT COMPLIED	1	2%	0	0%
INATTENTIVE DRIVING	4	8%	277	11%
CELL PHONE	0	0%	7	0%
CARELESS DRIVING	7	13%	289	11%
NOT STATED	0	0%	0	0%
TOTAL	52		2550	

