



# COLORADO

## State Patrol

Department of Public Safety

Staff Services Branch  
700 Kipling  
Lakewood, CO 80215

August 18, 2017

To whom it may concern,

The intent of this correspondence is to provide a brief synopsis of the information gleaned from attending the 43<sup>rd</sup> International ATSIP conference in New Orleans.

This training opportunity provided me an opportunity to attend a variety of training classes. As a law enforcement professional I tried to stretch myself by attending classes that were outside of my professional discipline. While I attended a few law enforcement classes, I purposely tried to attend classes that were geared toward analysts, engineering, and technology, as opposed to just traditional law enforcement classes.

**Technology and Impaired Driver: Ignition Interlocks- The New AirBag for Impaired Driving?** – During this presentation, I learned of the advancements made by this technology to ensure that people arrested and convicted of impaired driving are prohibited from taking measures to defeat this technology. Specifically, the instructors highlighted that in the past, people would defeat the interlock device by having a sober person blow into the ignition device to start their car, but now technology has the ability to take a photograph of the person providing the breath sample. Additionally, the system will require a person to provide random sample of their breath while driving. If the violator provides a “Hot” BAC result that person can be reported and actions can be taken so that law enforcement can be notified to locate the driver who has alcohol on their breath. The alert consists of the head lights flashing on and off on the violator’s vehicle and the horn will continuously blare to alert law enforcement. The class also highlighted advancements in the technology to ensure that people are submitting deep lung air, which is a true measurement of a person’s BAC level. In the past, people have defeated the interlock devices by using balloons or air compressors. Both the balloons and air compressors provide air, but obviously did not provide a true sample of the violator’s BAC to operate a vehicle safely.

**Spatial Distribution of Alcohol Involved Crashes in Louisiana** – This class provided me with a new approach to consider when analyzing alcohol related incidences. Specifically the Louisiana authorities implemented a project referred to as “Left of Boom”. This initiative leveraged data and analysis from crashes and DUI arrests with the intent of preventing alcohol related crashes. One analysis considered looking beyond where the DUI arrests were being made or where the alcohol crash occurred, but also considered the driver’s home zip code for analysis. This new data point was used to identify problem areas as opposed to just individual incidences. Problem areas identified can then be saturated with law enforcement operations, media campaigns and educational campaigns. Based on this data authorities in Louisiana were also able to build a predictive model where they could anticipate people who have the propensity to drive under the influence of alcohol. This information was then plotted on a map to show where there was a greater propensity for crashes, DUI incidences, and alcohol consumption of pedestrians.

**Drug Impaired Driving – Using Data to meet Program Goals** – This class provided a high level overview of the DRE program and spoke about the physiological effects that drugs, other than alcohol, have on a person. It highlighted the different drug categories that DRE’s are trained to detect. I learned during the presentation that DRE’s are looking for impairment caused by THC versus Carboxy THC. THC is reported to stay within our systems for 4-8 hours and is indicative of recent use, whereas Carboxy THC stays in the human’s system for weeks and does NOT indicate recent use. The significance between these two differences plays a significant role for obtaining a DUI conviction. The class also shared with the students how the Standard Field Sobriety Tests (SFST’s) are not the best indicator for showing impairment for consumption of marijuana. In fact, recent studies revealed that 72% of chronic users of marijuana were able to pass the SFST’s, and 57% of the casual users were also able to pass the SFST’s. This revelation clearly indicates the need to train officers in other methodologies to detect driver’s under the influence of marijuana. This class, emphasized the importance of using urinalysis to show impairment versus blood, since the blood results were indicative of substances that were still in the human body and a urinalysis is the body’s way of excreting or eliminating waste thereby implying that the narcotics (and their effects) were leaving the human body central nervous system.

**Evaluation of Low-Cost Safety Improvements Pooled Fund Study** – This class highlighted strategies to improve traffic safety that generally cost less than \$100,000. The class highlighted different strategies that could be implemented to reduce accidents that occur in predictable locations. As an example, rumble strips could be used in curves or narrow roads to alert the driver they are weaving or about to drive off the road. This study showed a significant decrease in accidents in curves in designated states that piloted this project using rumble strips. This class also talked about the importance of properly designed roadways, especially as it relates to intersections and access points. Access points were evaluated and analyzed for safety and it was discovered that access points prior to an intersection had a greater propensity for an accident than access points after an intersection. Ironically, the cost associated with curbing these access points is relatively cheap, additionally the economic cost associated with a car accident easily outweighs the cost of curbing. Finally, in this class, I also learned about a Florida study involving traffic control signal lights. The initiative was referred to as Red Light Indicator Lights (RLIL). This particular technology allows law enforcement officers to



enforce traffic control violations downstream. What this means is an officer can sit beyond the intersection to watch for people running a red light. This technology keeps officers safer so that they do not have to run through the intersection to chase down a violator. This technology works by signaling an officer when a violator runs a red light, simply by the use of a lamp on the traffic control signal light. The lamp, which is blue, will turn on when a violator runs a red light thus signaling the officer for the traffic violation.

In closing, I wish to extend my gratitude for this training opportunity. I not only gained some valuable training lessons from the different classes offered at the conference, but I was also able to network with a wide array of individuals from different disciplines. This networking will provide me the opportunity to consult with them in the future and share best practices to address safety concerns.

Respectfully submitted,

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## 43<sup>rd</sup> International Forum on Traffic Records and Highway Information Systems in New Orleans August 6 - 9, 2017

While I was at the 43rd International Forum on Traffic Records and Highway Information Systems in New Orleans, I attended most of the sessions in the "Crash", "Data Quality", some of the "Federal Programs" and Data Analysis/Vision" tracks. Through these sessions, I got the take-away that Colorado would benefit in several areas:

1. Data is the foundation for all safety benefits and decision making. Therefore, there is a need for feedback to the data collectors (officers in the fields). If the state gives feed back to the agencies, and to the officers eventually the incoming data quality will improve. [As the Colorado Department of Transportation's Crash Data Management is building a new database and cleansing system that would align with DRIVES from Department of Revenue, building in a reporting tool and survey buttons to measure each location \(whether the location is wrong or needs more information based off of the narrative\) could help achieve this. As the coder's are cleansing the data they would be able to rate the location, and other fields could be compared to the raw data. A report would then be generated with each field that is different from the raw data and sent back to the agency as feedback.](#)
2. Some of the Crash Data Performance measurements that were given are review and audit of the collected and cleansed data; feedback from the users to the collectors of the data; and defined methods to correct errors. All of these would lead to continuous improvements. [Along with sending a feedback report to the officers, Colorado could also start hosting "Train the Trainer Workshops" bi-annually with real data. The trainers would then be able to feed the information back to the officers in the field.](#)
3. Development, creation, and deployment of an application in which the officers in the field could log in via computer or smart phone. They could then fill out the traffic crash report form electronically from their cars, at the scene, the coffee shop, or office. This application should be designed as a "smart form" (similar to "Turbo Tax") that would walk the officer through each element of the report; have help/information buttons that would pop up information for that particular element or attribute to that element; allow for scanning in of the personal ID's, vin numbers, license plate numbers, etc. It would then auto-populate relating fields. Another requirement would be that once the officer inputs the location of the crash, the application would open a mapping system and find the location, and allow for the officer to move a pin point to the closet point of the first point of impact. The mapping system would then populate the coordinates for that location. If the officer enters in a location that is not found, the application will ask for clarification. Also, the smart form could have data validations (similar to what DRIVES requires as well as CDOT's data checks). The officer would then be able to save progress and be notified via email or text message as a reminder that the report has not been completed. Once completed and submitted, a copy would be placed into the agency's electronic file and sent to the data repository (DOR). This would be the best way to obtain the goal of 100% electronic reporting.



43<sup>rd</sup> Annual Traffic Records Forum  
New Orleans, Louisiana  
August 6-9, 2017  
Report by Christine Demont, Injury Epidemiologist, CDPHE

Because I work at the health department, my interest in the conference was learning about behavioral safety issues related to crashes and the type of work that other states are doing on this topic to reduce injuries and fatalities from traffic crashes. There were presentations on drug-related driving and efforts to reduce drug impaired driving, an emerging public health issue. There were also several presentations on data integration where I learned about linking crash data to other datasets such as hospitalization data, death data, citation data, and driver's license data. I will soon be linking crash data to health data for the State of Colorado.

On Sunday, I received a really good overview of the Drug Recognition Expert (DRE) program and the DRE database (convenience sample only). Also, Dereece Smither presented on NHTSA's role in studying the effect on drug-impaired driving. There is over 30 years of research on alcohol-impaired driving but very little research on drug-impaired driving. There are over 1,000 types of drugs, and many are not legal so it makes it challenging to be able to answer how drugs impair driving. It varies greatly on the type of drug, drug combinations, and the person taking it (size, tolerance, metabolism, etc). Currently the FARS database only includes the top 3 drugs found in the driver, but starting in 2018, all drugs that the driver tested positive for will be included.

One presentation given by Maryland tested the hypothesis of whether it is experience or age that causes young people more likely to have motor vehicle crashes. The researchers found that it was experience, not age that affected crashes. They linked age of being newly licensed to crashes and discovered that age groups (18-24, and 35+) still had higher crash rates if they were newly licensed versus the same age group who were not newly licensed. They also found higher rates of citations given to newly licensed drivers compared to those renewing their license across similar age groups.

Washington State linked crash data with emergency department data to assess the injury severity recorded by the police officer on the crash report with the Injury Severity Score given by healthcare workers in the emergency department. There was a low percentage that matched injury severity. Louisiana, Minnesota, Kentucky, and New Jersey all shared linking projects that they did and was very useful as I am about to start a linking project here in Colorado. The most interesting linking project was demonstrating injury costs associated with unbelted motorists versus belted motorists to support a primary seatbelt law.

The Centers for Disease Control and Prevention (CDC) is contracting with an organization called MITRE based in Massachusetts to research the best methods for linking crash data with various health data sets (deaths, emergency department, in-patient hospitalizations). They are working with several states to pilot different linking software programs to determine the best methods. They are halfway through their project and plan to have the report complete and disseminated in September 2018.



COLORADO  
DEPARTMENT OF  
PUBLIC SAFETY

# MEMORANDUM

Chief Scott G. Hernandez  
Colorado State Patrol

DATE: August 31, 2017

TO: STRAC Committee thru channels  
CC: Captain Ansari  
Major Santos

FROM: John Lynkiewicz, Records Manager

SUBJECT: Association of Transportation Safety Information Professionals (ATSIP) 2017 Annual Traffic Records Forum Conference Notes

As requested by the STRAC members as a condition of attendance and reimbursement at the Traffic Records Forum held in August 2017, the following program notes are provided.

On Sunday, a presentation on the “eVolution of eCitation in Connecticut” was presented. Presenting members included judicial, local and state law enforcement as well as a member of the regional planning group and the state TRCC. This topic was of interest as the STRAC in Colorado is also looking at a means to have a centralized citation data base in order to improve state traffic records and has stopped funding Colorado municipalities for eCitation systems because of the issue of non-reporting of citation data to state agencies. With the advent of eCitation in Connecticut the need for support staff was reduced without layoff. The quality of citations is better due to edits being built-into the mobile applications and are validated prior to submission to the central repository. The time needed for citation issuance has been reduced from an average of 21.9 minutes to approximately 16 after implementation of eCitation.

The program on “Citation/Adjudication Open Forum Discussion” was held with a group panel discussion on the related challenges and successes. There was a lot of discussion between members of law enforcement and judicial over processes. One panel member really was driving on the point of de-criminalization of all traffic offenses (with the exception of bodily injury or death) and the potential of implementation of civil processes only with related monetary penalties.

The State of Minnesota presented a program on “Data Integration.” The topic was specific to the use of a state developed e-DWI submission that is used by all state law enforcement agencies to submit to numerous end users like the DOR, courts and district attorneys. The overall system not only links driver’s license and vehicle information in order to expedite DWI processing. Overall, it takes a law enforcement officer approximately 15 minutes to complete all related forms used in the state DWI process. Subsequently, the system was expanded to allow for an officer to submit appropriate documentation needed in a search warrant affidavit sent electronically to judges in order to obtain a signed search warrant for blood/urine draw from a suspect. The system has a dashboard system for reports that also is loaded with locations of alcohol selling locations that can be used in a map overlay along with arrest locations for DWI and non-DWI related arrests.

Staff from the Michigan State Police presented a program on Crash Data Quality Control demonstrating their procedures and reasons for how they screen and correct related crash data. The Michigan State Police has a unit which handles all crash data as the designated custodian of record. The staff provided both jump drives and manuals of their process for attendees to take back to their respective agencies.

This was the second time I have attended this forum, I found since my last time in 2015 that the number of additional tracks that have been added to be very informative and worthwhile in attending the various program events offered. While it is always a challenge to absorb the numerous governmental acronyms, I did find some very useful concepts that could have applicability here in the State of Colorado by numerous state agencies. Thank you for the opportunity.



**COLORADO**  
**Department of Revenue**

Division of Motor Vehicles

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September 7, 2017

ATTN: Colorado Department of Revenue, Division of Motor Vehicles Leadership  
RE: 2017 Traffic Record Forum Conference Sessions: Summary Report

The following report gives an overview of content and applicability for sessions I attended at this year's ATSIP (Association of Transportation Safety Information Professionals) Traffic Records Forum held Sunday, August 6<sup>th</sup>, 2017, through Wednesday, August 9<sup>th</sup>, 2017 in New Orleans, Louisiana.

Sunday, August 6, 2017

- **Data Quality - We've Got Your Number (QA) 3:00pm-4:30pm**
  - Data quality saves lives
  - Performance measures make sense
    - GIGO- Garbage In, Garbage Out
  - It is important that governments and law enforcement agencies make decisions based on data.
    - Ideally- predictive data models that can be used to prevent negative consequences
  - It starts with purposeful data collection and analysis
  - Then- Presenting data in a way that is digestible and meaningful to the specific audience
  - That audience then can make informed decisions based on that data
  - Result- Increased Road Safety
  - Annual traffic fatalities are increasing/steady since 2013 in the US
  - The Users determine what quality they need to make their assessments
    - Ex- WY Highway Patrol
      - Data improves enforcement focus- which behaviors occur at which locations more/less frequently
        - Drinking, Restraint Usage, Distraction, Speeding
      - Needs- Integrated Crash and Citation data- comparison
        - Accessibility to data
      - Results- Lots of speeding tickets per speeding crash
        - Not as aggressive with restraints or alcohol
        - Poor data for distraction/drugs
      - Developed an Enforcement Focus Map
  - What can Performance Measures Tell Us?
    - Baselines, Corrective Measures Needed, Trends, Input on Target Development
  - Crash Data
    - Location Accuracy- desire to reduce errors so that laws are effective, enforcement is effective, good usage of government resources, information collection is meaningful

*The Colorado Division of Motor Vehicles is committed to providing excellent identification, driver, and motor vehicle services to help make Colorado a safer place to live, work, and play.*

*Please visit: [www.colorado.gov/dmv](http://www.colorado.gov/dmv)*

- Target- 98% valid
- Additional Needs- Timeliness data collection
  - Probably an issue with our CDOT- most crash studies use annual data
    - Law Enforcement investigations take time- complicated
  - WY decreased their data collection from 83 days (2007) to only 8 days (2017 YTD)
  - Graph of LEA and timeliness in data collection- a few agencies skewed the numbers negatively. Top 2- 45 and 72 days.
    - Provide feedback to these agencies quarterly so that they know where they stand

Monday, August 7, 2017

- **Data-Driven Impaired Driving Database- OK- 10:30am-11:00am**
  - Legislation-drive database- HB 3146 (2016)
    - Initiated by NHTSA
    - IDEA- Impaired Driving Elimination Act
  - “Turbo-tax for DUI Arrests”
    - Many drop-down menus for ease of entry- prevent data entry errors, misspellings, inconsistencies
    - Can select both arrest location and place of last drink
  - The focus was on making the forms easy, clear, descriptive without requiring a ton of typing (time-saving)
    - Forms also contained validation measures
    - Consistency in language/terminology aided in conversations surrounding issues- facilitated discussion between law enforcement and government entities.
  - Created a heat-map (seems to have been less prevalent this conference than previous year)
  - National Surveys on Impairment- partner with University
    - Notice this is a common cost-saving tool, free research. Idea for CO?
    - NHANES- National Roadside Survey
    - NIDA- monitoring the future
- **Common Drugs of Impairment- 11:10am-12:00pm**
  - Session put on by Louisiana State Patrol.
  - Drug Testing generally-
    - In all cases (except fatality, sexual assault)- run for BOC, if .08% or above, stop testing.
    - Only traffic-related data in this presentation.
    - Currently- can test for synthetic cannabinoids- but need to test separately from usual 10-panel.
  - Started collecting BAC data in DUIs & crashes in 2012.
    - .15%- most common BAC.
    - 54.4% of all BAC measures collected are .08% or higher.
  - Drug Sampling
    - Average # of drugs per sample tested is 2-3 (alcohol counts as 1 drug).
    - Urine Testing
      - Urine generally seen as unreliable- trying to move away from urine testing.
      - THC top drug detected in urine samples, methamphetamine 2<sup>nd</sup>.
        - Methamphetamine could indicate Adderall/prescriptive medication as well.
    - Blood Testing
      - THC is top drug detected in blood samples, methamphetamine 2<sup>nd</sup>.
        - Able to separate out amphetamines from methamphetamine, specifically, in blood testing (more precision).
    - Blood & Urine Testing
      - THC top drug, methamphetamine #2. (consistent in all tests)
- **Drug Impaired Driving- Using Data to Meet Program Goals-1:30pm-1:50pm**



- Drug Recognition Experts (DRE) Data-Entry & Management System presentation
  - Focus- How can the form assist the form-filler and the form receiver?
  - Cut down on data duplication
  - Tablet and web applications (trying to move away from paper forms altogether)
  - Can add fields and tailor to specific states' requests (application is flexible in its format and presentation)
  - Focus- Data integrity- Drop-down menus, assistance with consistency in language/terminology used
    - Can designate certain fields to be mandatory
    - Intelligent \*red flags\*- ensure data is relevant and entered into the correct area (is able to stop individuals from entering incorrect data, such as numbers into text field)
  - Can refine searches by any field (something we are currently struggling with in DRIVES and reporting)
- **Effective Safety Data Governance- 3:00pm-3:50pm**
  - Accountability for data management- government and law enforcement
  - To establish effective data governance model, must review:
    - Data Principles
    - Roles and Responsibilities
    - Document (law)
  - AASHTO Data Principles (American Association of State Highway and Transportation Officials)
  - Helps to engage business areas in their data versus addressing data as a solely "IT issue."
    - I think we are already doing this to a degree with DRIVES and having data access control in-house, rather than residing with OIT as it has in the past. We still have struggles with OIT and data control, however, as our vendor largely has control over data access. We have run into this with trying to cross-train staff and running into roadblocks because they cannot perform certain functions within the system itself. This has resulted in several SQRs and conversations.
  - Assessment Elements
    - Strategy and Direction- Is it clear what we want to accomplish?
    - Roles and Responsibilities- Is it clear who is responsible for what?
    - Policies and Processes- Is it clear how we go about performing functions and making changes?
    - Data Value- Is it clear what the data will be used for?
- **Overview of a Successful E-Cite Project- 3:50pm-4:30pm**
  - Presented by University of Alabama- Center for Advanced Public Safety
    - This institution partners with state agencies for projects
      - Receives funding largely from federal sponsors \*\*many projects are implemented for CDL and then made broad-reaching to transition easily to all drivers. Idea for funding requests for CO in future.\*\*
    - Mobile Law-Enforcement Tool to increase efficiency and consistency
  - MOVE (tool name)
    - Integrates GPS, Driver License scanners, laptops, air cards for internet connectivity, printers in police vehicles
    - Pilot- 2003
      - All state troopers in Alabama using system by 2007.
        - Municipal roll-out-2008 (took longer, free equipment funded by Office of Highway Safety in order to get on board)
    - 1 million Citations issued through system per year
    - Not \*just\* a Citation- Is a completely integrated system.
      - Electronic integration involves law enforcement, government, and courts.
    - Results- reduced errors, avoided redundant data entry, prevented multiple citations/duplicates, decreased processing time
    - States currently implementing system to some degree- AL NM (FAST state), AR (FAST state), MS.

- Required legislative changes in all states in order to implement (likely the same in CO)
- Law change for “swearing” needed in Alabama specifically

Tuesday, August 8, 2017

- Data Integration on Steroids-8:00am-9:30am
  - University of Maryland- Effectiveness of an Ignition Interlock Device on Reducing Alcohol-Impaired Driving Recidivism
    - 2015- over 10,000 people killed in crash involving a driver with a BAC over .08%
    - Every 53 min- a person dies as the result of an alcohol-related crash
    - \$44 billion- estimated direct and indirect costs of alcohol-impaired crashes nationally
  - Impaired driving fatalities in US have held steady for past 5 years (not taken into account- safety technologies, seatbelt law implementation, availability of other transportation options)
  - Maryland
    - 2015-159 people killed in crash involving driver with BAC over .08%
    - Accounted for 29% of all traffic fatalities
    - Every 2.8 days- 1 person dies as a result of an alcohol-related crash
    - \$690 mil per year cost to the state (estimated)
    - 2016- 20,551 people arrested for impaired driving
  - MD Motor Vehicle Administration- oversees ILK program
    - Drivers may be referred to ILK program by court, administrative processes
    - 9,000 participants per month enrolled
  - Rules
    - Drivers must
      - Have an ILK installed
      - Have a restriction on their license
      - Report to vendor every 30 days for calibration and data download
      - Are responsible for all installation and removal fees
    - Violations similar to CO
  - Drunk Driving Reduction Act- 2011
    - Under 21 alcohol violation- 1 year of ILK or suspension
    - 2<sup>nd</sup> conviction within 2 yrs.- ILK or suspension
    - High BAC (over .15%)- 1 year of ILK minimum
    - All suspensions from same incidents are concurrent
    - Criminal sanctions for driving non-ILK vehicle
  - Noah’s Law- 2016
    - Mandates ILK for convictions of DUI, Driving while impaired while transporting a minor, homicide/serious injury resulting from DUI/DWI.
    - 1<sup>st</sup> incident- 6 mos.
    - 2<sup>nd</sup> incident- 1 yr.
    - 3<sup>rd</sup> or subsequent incidents- 3 yrs.
  - Innovation- Two Measures of Impact
    - 1. Subsequent AID (Alcohol Impaired Driving) Citation
      - Significant decrease in overall AID citations- average for Control group approx. 30,000, average for ILK group approx. 10,000.
      - Initial results did not show significant impact over period of time- people returned to their prior behaviors once device removed
    - 2. Subsequent AID-related crash
      - Results not as significant as Citations
      - Similar trends once device removed
    - Had study group and control group- timeline from 2008-2015
    - Ignition Interlocks are not a “silver bullet”
      - Certain groups of drivers are resistant to change- reduce drinking and driving while on ILK, return to original practices
      - Studies in Florida suggest longer effectiveness when combined with other

- methods of treatment
    - Changing Behavior-
      - Graduated Driver License Programs- shown to reduce crash rates
      - Requiring all beginning drivers to take a driver's education course
      - Major factors in crash prevention-
        - Pay attention
        - Alcohol restraint
        - Speed control
        - Space between vehicles
    - Previous work focused on teen drivers- misses a significant portion of population who get their driver's license at different periods in their life.
    - **\*\*Focus should be on experience, not age\*\***
  - Regardless of age- studies show drivers receiving their initial license had higher rates of crash involvement
- **Interlocks- The New "Airbag" for Impaired Driving? (SmartStart)- 10:00am-11:00am**
  - National regulations and specific state regulations
    - Some have a 911 alert system built in, gps tracking
    - General public shows overwhelming support for interlocks
    - All 50 states have some sort of interlock laws
      - 30 states require all DUI offenders to have an ILK for some period of time
      - 11 states require it for high BAC offenders (.15%+)
      - 6 states only require repeat offenders to have an ILK
      - 4 states give full discretion to the judge
      - **337,000 in US right now**
  - Why use Interlocks?
    - Reduce recidivism
    - Reduce DIU fatalities
    - Change impaired behavior
    - Keep roads safer
      - Lives saved per 100,000 people
      - Airbags- .9
      - Interlocks- .8
    - Since 2006- 2.3 million attempts to drive by .08% BAC or higher stopped by ILKs
- **Department of Transportation Assistance Programs- 1:30-2:30pm**
  - "Traffic Records Team" - provides technical assistance for state traffic records programs.
    - Also develops standards and identifies noteworthy practices.
  - "Regional Operations and Program Delivery" - Administers the State Traffic Safety System Improvement grants
  - Traffic Records Team- Core Programs
    - 1. Traffic Records Assessments
      - Requirements for 405C state traffic safety information system improvement grants
        - Must comply with NHTSA's Traffic Records Highway Safety Program Advisory
        - Provides states a peer review of their systems and recommendations to address in the TRCC strategic plan
      - Assessment results identify common issues
      - STRAP Improvements- improvements to online interface, preload previous responses and documents, identify the previous respondents to each question, moderator site visit after the first assessment round to explain initial ratings/answer questions
      - Assessment data is used for- aggregate information on traffic record systems.
    - 2. Crash Data Improvement Program (CDIP)
      - Deep-dive into crash data system

- Includes analysis of live State crash data, onsite meeting to review data, assistance in identifying challenge areas, help developing appropriate performance measures
    - 3. Model Minimum Uniform Crash Criteria (MMUCC)
      - MMUCC 5<sup>th</sup> Edition- new
        - Edit checks
        - Mapping Rules
        - Eliminate Defined Sources
        - Reorganized into Context-Specific Sections
        - Crash report- editable version available on NHTSA website \*\*\*
          - New automated vehicle data elements
      - Voluntary guideline- provides states with a minimum set of standardized data elements to promote uniformity and integration of data
    - 4. GO Teams- Training and Technical Assistance
      - Small to medium-scope projects, number of GO teams depend on resources available
      - Work with states to accomplish goals
  - Regional Operations and Program Delivery
    - Highway Safety Act of 1966- mandates Governors of each state to administer a highway safety program through a state highway safety agency.
    - Must designate a single point of contact in that agency for the review and management of the program.
    - NHTSA distributes state/community grant funds for programs aimed at preventing crashes.
      - Approx. \$600 million goes to State Highway Safety Offices (SHSOs)
      - \$227 million authorized in 2017- separate sub-grants for different program areas
        - Example- Interlock, Motorcycles, Distracted Driving
  - 405(C) Grant Qualifications
    - State must have a functioning Traffic Records Coordinating Committee TRCC
    - Have a traffic records strategic plan, approved by the TRCC, that described anticipated improvements in the state's highway safety databases and address recommendations from the state's NHTSA traffic records assessment.
    - Demonstrate a quantifiable improvement in core database when compared to a contiguous 12 month baseline period.
- **Beyond Demographics- Examining Seatbelt Use at the Individual Level**
  - Many varying strategies
  - Who does not use seatbelts?
    - Can tell by demographic information
  - We need to know \*WHY\*
    - Also, what is the difference between use and non-use
  - Estimate % of drivers who do not use seatbelts and received a violation- 46%
    - Predominantly male
  - Concepts—Motivation, Routine, Habit
  - NH- only state without a mandatory seatbelt law

Wednesday, August 9, 2017

- **Linking Crash Data with Health Data Systems- 8:30am-10:00am**
  - Objective- improve vehicle crash surveillance and outcomes
  - "Prevention Program"
    - Motor vehicle crashes- single largest cause of death for workers in Louisiana
    - Pilot Project-> examined 5 parishes in 2012, 2013, 2014
      - Ranked injuries- Fatal, Severe, Moderate
      - Obtained death certificates- 50,000 per year

- Name, DOB, narrative, codes- additional info if an injury
    - Calculated injury severity by translating diagnosis codes from death certificates
    - Fatalities- motor vehicle was not coded on the death certificate about 45% of the time
      - Sometimes death attributed to factors other than the crash, chronic condition, suicide, homicide, etc.
    - Some hospital records had no crash codes at all
    - Long time (1-2 yrs.) for health data- crash data much more up to date
    - Each coroner works independent of one another (64 coroners total in parishes researched)
    - Difficult to acquire emergency department data at all
    - Duplicates were an issue.
  - Traffic Record Integration- Kentucky
    - Data helped inform 2006 primary seatbelt law and 2008 booster seat law
    - Drugged Driving Research
      - In KY- do not receive names- data based on probability based on DOB and other fields.
      - Used overlapping data sets- Crash vs. Cause of Death in hospitalization records
      - In 2013- were able to use intoxication results for drivers at trauma centers
        - Cocaine most prevalent in KY
      - Trauma Registry records for commercial motor vehicles are largely incomplete
      - Acquired trauma center funding
      - 2014- Linked Crash and FARS data- 606 records
        - FARS better captured data generally, particularly of drug data
        - Law Enforcement should consider reporting of FARS data in addition to crash data
- Local Roads Safety Data Analysis Approach
  - Why Should We Care About Safety On Local Roads?
    - All amounts to state data
    - 2016- 20% of fatalities and 38% of serious injuries occurred OFF state-regulated roadways
    - 2-day peer exchange in Seattle Aug 2017 focus topics:
      - Data collection approaches
      - Analysis tools and methods
      - Technical expertise and support mechanisms
      - Program and funding requirements and models
      - Coordination between local and state law enforcement
    - FAST Act- requires states to have a safety data system
      - Applies to the collection of data on all public roads, and includes geolocated crash, roadway, and traffic data; it is also a requirement that hazardous locations, sections, and elements be identified. - does not specify who collects this data.
    - Challenges-
      - Sources of local road safety data
      - Accuracy and timeliness of safety data
      - Quantity of data
      - Model Inventory of Roadway Elements (MIRE) Fundamental Data Elements (FDE)
      - Notes:
        - The sheer quantity of data makes central quality assurance difficult; to address this issue some States have robust systems for county and local officials to review data relevant to their jurisdiction and report errors and updates. This can remove the burden of collection from the resource-strapped local agencies while allowing them to have oversight of their region and reap the benefits of robust data sets. Another

challenge is that crash data, roadway characteristics, and other safety and spatial data may be encoded using different systems which may not directly align.

- States take different approaches to this data collection- some more centralized than others.
  - Successful strategies for engaging local agencies were brought forward by peer States focusing largely on enhancing coordination between State and local governments or local government partnerships. Regional entities such as metropolitan planning organizations (MPO) and Local Technical Assistance Programs (LTAP) can build strong relationships between agencies and bridge the gap between local needs and State priorities. Simply getting local agencies in the same room with the State Department of Transportation (DOT) can provide an important opportunity for developing safety projects.
  - Many States are providing counties and cities with summary information based on network screening techniques to help locals prioritize safety spending.
- Spending is also an issue:
  - Most states represented at the peer exchange were excited at the visualization and mapping tools which were presented during the session. Yet the high data cost for initiating some of these systems was daunting to some.
- Key Takeaways:
  - Communication of safety data is important
  - Need to make the process less intense and more approachable
  - Build relationships between state and local officials to share knowledge
  - Seek to sustain a strong data program
  - Training and technical assistance is necessary for ongoing success

## Summary

This year's conference was less focused on data visualization, and more on data integration and standardization. I see a lot of applicable takeaways from this. We always have stakeholders wanting to integrate data, from Colorado Department of Public Health to Colorado Department of Transportation. Many of the systems proposed for this integration also had controls in place that would minimize many of the errors we currently experience with our various paper-based processes. One notable I do want to comment on, though, is that the transition from the paper to the electronic was generally initiated by a legislative change in other states. This poses a challenge to us in moving towards electronic document submission; although the idea may be good, it cannot get off the ground without the appropriate funding and statutory authority.