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# **Tribal Crash Reporting Toolkit: Crash Reporting Facts and Fictions Tool**

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## **Abbreviations**

EMS	emergency medical services
FARS	Fatality Analysis Reporting System
GIS	geographic information system
LRS	linear referencing system
MCSAP	Motor Carrier Safety Assistance Program
MMUCC	Model Minimum Uniform Crash Criteria
MOU	memorandum of understanding
PDO	property damage only
RSA	road safety audit

## **Introduction**

This tool is designed to help Tribal governments and their law enforcement agency partners (whether part of the Tribal government or not) address some of the most common misconceptions about law enforcement crash reporting. This list is not intended to be exhaustive but is intended to address concerns that Tribal agencies may have about reasons for incomplete, inaccurate, or inconsistent data. The treatments of topics in this tool are organized around various “fictions” about crash reporting. For each fiction, we present the facts of the situation—how the data are collected or used—and include suggestions on how a Tribe might counter that particular fiction through training, communications, and outreach.

## Fictions and Facts



### **Fiction: Crash reports are useless.**

**What it is:** This “fiction” is that crash reports just make work that gets in the way of *real* policing and wastes the officer’s time and public resources. Along with the notion that they are useless, is that if anyone is using them, it’s for insurance or litigation purposes. That way the involved parties have an official record they can use to get a payment from their automobile insurer or to support a legal case. This notion is supported, in part, by the fact that the majority of private requests for copies of crash reports are precisely for this purpose—a vehicle owner comes to the department’s records window and asks for a print-out of the crash report so they can submit a claim, or the insurance company asks for a copy on behalf of the vehicle owner.





***Fact: Crash reports are used as the core of many safety improvement efforts.***

Through inclusion in a centralized crash database (usually at the State level but can also be at the Tribal and local levels), crash reports become part of a resource that is queried so that analysts can describe the contributing factors in crashes. When analysts use the data, they are rarely interested in the specific damage to vehicles or structures (the typical concerns for insurance claims), but they are very much interested in the severity of the crashes—was anyone injured or killed, if only property was damaged, what is the nature of that damage, and what was damaged.

Analysts focus on events and circumstances leading up to the crash—what happened during the crash—and what post-crash factors may have affected the outcome. That means that analysts are thinking about contributing factors like road users’ condition and actions; what happened to the people involved; was there anything of concern at the location or with respect to weather or lighting; were the vehicles in good repair; and were people given appropriate medical care in a timely manner.

The list of considerations is long and complex. The job of safety analysts is to look for opportunities to improve safety by reducing the frequency and severity of crashes. To do that, they need to know what factors contribute to the crashes we have today, and they need to know where those crashes are most likely to happen. That is where the data comes in.

**How to promote the facts:** Some in law enforcement never see the benefits of their efforts in creating accurate and complete records of crashes. They may never see data on the crashes happening in their jurisdiction. They might never see the connection between having accurate crash data and gaining resources to help their department run programs that can reduce the frequency and severity of crashes. To address these gaps in exposure and understanding, Tribal governments can consider any of the following actions:

1. **Initial officer training.** When a new prospective officer is trained in crash reporting, one of the topics to cover could be “how the data gets used.” Training could show how crash data supports decisions like where to spend safety dollars, how to identify a safety improvement opportunity, and how engineering and behavioral countermeasures are selected using the data.
2. **Ongoing communications.** Informing the officers who are already active on a police force is just as important as training new recruits. To reach those already working in the field, Tribes could consider creating educational material such as a roll call video, training sessions (especially train-the-trainer and training for supervisors) and circulating fact sheets that give a sense of how important the data can be in support of safety programs and spending. A helpful example of an informative video from the Colorado

Department of Revenue is found at How Crash Data Helps ([https://youtu.be/dDr\\_n3VP7Bg](https://youtu.be/dDr_n3VP7Bg)). It presents the important uses of crash data.

3. **Publishing crash facts.** Most States, but relatively few Tribal governments, publish annual statistical reports summarizing crashes in their jurisdictions. A crash facts report is a useful way to share with all stakeholders (law enforcement, transportation, public health, leadership, legislators, and more) the frequency and severity of crashes and some reliable information about their distribution geographically and over time. A crash facts report is also helpful in identifying the most at-risk segments of the population (e.g., young or old drivers, pedestrians, bicyclists) and the behaviors and other factors that contribute to risk.
4. **Safety summits and other collaborative discussion opportunities.** Police respond best to communications among their peers. To address the fictions about crash reports, a Tribal government or Tribal traffic safety unit could hold a peer exchange among law enforcement agencies, open a dialogue involving law enforcement officers and the multiple users of crash data, and perhaps even consider creating a standing committee (such as a traffic records coordinating committee) with broad law enforcement participation. Such face-to-face gatherings offer an excellent opportunity to discuss and address the fiction while hearing from multiple voices and perspectives.



**Fiction: Tribal members’ identities or sacred sites can’t be protected.**

**What it is:** The fiction is that a crash report *must* divulge identities and locations. This fiction comes, in part, because the crash report itself is designed to collect names and locations and the law enforcement officer is expected to fill in those parts of the crash report form. Sworn officers may not have discretion allowing them to leave certain parts of the form blank. Two facts are true: (1) Tribal Nations are sovereign with rights and responsibilities toward Tribal members including dispensing justice, *and* (2) specific locations on Tribal lands need protection from disclosure so that opportunists do not find and desecrate them.



***Fact: Tribal governments control sensitive data elements through data-sharing agreements.***

These often take the form of a memorandum of understanding (MOU) between the law enforcement agency and the agency that is compiling the data (a Tribal safety program, a State law enforcement agency or safety program, etc.). A typical feature of such MOUs is a list of the data fields that will be provided and a list of limitations on what data may be shared with any other parties. From a practical standpoint, the originating agency and the agency that compiles the data for analysis need to talk about and agree on what gets shared, how it is stored, how it is secured, and what (if anything) gets released. Typically, even if a Tribe allows details like names or specific location descriptions to be shared among agencies, the receiving agency is barred from sharing those details with any who are not party to the original agreement. That means if another person or agency asks for a copy of the original report, they would be referred to the originating law enforcement agency.

An MOU can limit use and release of any information protected by the agreement. Then, if information is shared with others, it would need to be redacted so that names and locations would be protected. The MOU could also specify that any analytic reports must not divulge any of the protected information or make it easy to discover the information by using a “back door” such as press accounts from a specific date and time to figure out who was involved in a crash that shows up as a unique count in an aggregate data table. Finally, an MOU may also require a data security plan. Such plans typically include details on how sensitive information is to be segregated and safeguarded from disclosures. Methods may include stripping records of the protected information and storing those data elements (if they are stored at all) on a separate device that is never connected to the network or the internet. Limits on who can access the protected information are also common to such agreements.

**How to promote the facts:** To address these legitimate concerns, Tribal governments can consider any of the following actions:

1. **Develop MOUs between agencies.** As described, an MOU gives each agency a very clear understanding of their responsibilities under the data-sharing agreement. The MOU can cover every concern of either participating agency in detail and specify how the data will be managed and secured. A companion data security plan is often desirable as well.
2. **Redact the data and limit analytic results.** For most safety analyses, names of the involved parties are simply not required. Even if the agencies need to know names of people, that information need never be included as part of an analysis—it might be used to link data and subsequently removed from any sort of reporting using the combined data.

3. **Establish secure lists for sensitive locations and limit access.** Keeping crash locations secure is a different issue. It is crucially important that engineers (and others) are able to examine features at the location where crashes occur. However, that specific use case does not require that the information be released outside of a small group of known and trusted individuals. The engineers also do not need to know about artifacts and special status of locations as part of a *safety analysis*—although they should know about such things if they are called upon to plan any changes to the location in order to avoid harming the location or assets. Tribes can (and often do) create secure lists of protected locations that are kept closely guarded even in the event of necessary roadwork. The point is to avoid inadvertent release of sensitive information that could result in malicious harm while making sure that trusted individuals can do their job while also avoiding harm to locations through lack of data.



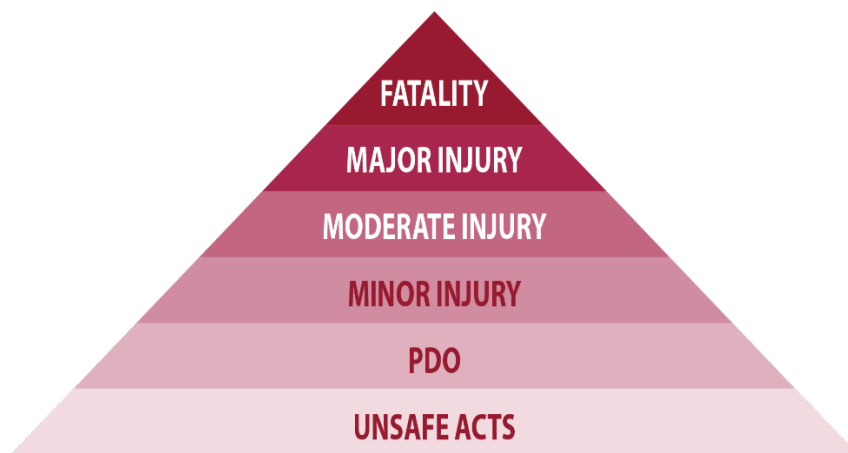
**Fiction: No injury, no crash report.**

**What it is:** This fiction says that the only important crashes are those where someone is injured or killed. A crash involving damage to property and no harm to the involved people is simply unimportant. This fiction comes from a variety of sources. First, many safety analyses *do* focus on fatalities or the combination of fatalities and serious injuries. It is natural, then, to assume that safety is measured *only* with reference to the most seriously harmful crashes. Another reason this fiction persists is that some departments instruct officers to not pay much attention to property-damage-only crashes but rather to focus on clearing the road so that traffic can flow freely as soon as possible. Finally, some U.S. State laws do not require a full (or sometimes *any*) report by law enforcement if the crash resulted only in property damage—short forms may be allowed or, in some States, the involved drivers are the only ones required to report.



**Fact: We know from decades of research that crash severity is like a pyramid with the wide base (the largest number of crashes) made up of the lowest severity (property damage only—PDO).**

Moving up the pyramid from the base we get fewer and fewer crashes at each successive increase in severity. So, there are many more PDO crashes than there are crashes involving a possible or minor injury. The next level up (moderate injuries) are even fewer in number. And there are still fewer crashes at the level of major (or suspected serious) injury. Finally, at the tip of the pyramid, crashes involving a fatality are the least frequent of all. The important point of the pyramid model is that there may be many commonalities among crashes at the various levels in the structure. If that is true, then we can learn how to avoid fatal and serious injury crashes by examining what factors contributed to the relatively larger number of crashes involving less severe injuries and just property damage. This realization is especially important in areas where the total number of crashes is small. For analytic purposes, the more data, the more confident we can be that the analyses give us a true picture of safety and the factors that contribute to crashes.



*Figure 1. Crash Severity Pyramid*

Thinking about it, when we collect and report PDO crashes above a minimum damage threshold (e.g., \$1,000 damage to any single vehicle in the crash) we are already eliminating some crashes from consideration. If we were to move up the severity pyramid, we would be basing safety decisions on fewer and fewer cases—and that means we would be using less and less information. When agencies decide not to report PDO crashes, what they are doing is removing from consideration the largest pool of crashes in order to focus only on the more serious ones. That strategy works analytically *only* if there are large numbers of injury crashes or the agency

has several years of data it can confidently use without the worry that something important may have changed during that period.

**How to promote the facts:** To address these concerns, Tribal governments can consider any of the following actions:

1. **Promote full reporting of all above-threshold crashes.** Agencies can explain the value of crash reports at all levels of severity so that law enforcement officers are motivated to create a complete and accurate record of the events. The same sorts of communications, outreach, and training activities that are mentioned elsewhere in this tool would apply here as well.
2. **Track completeness and consistency.** Tribal governments can produce reports of the ratio of serious crashes (fatal and suspected serious injury crashes) divided by the total number of crashes reported by each law enforcement agency. That ratio will increase if the law enforcement agencies are *under-reporting* PDO crashes (the serious crashes make up a larger proportion of the total). There is no hard-and-fast rule for that ratio, but values around 0.30 (or roughly 30%) are typical. When the ratio climbs to over half of all reported crashes being serious or fatal, it *might* indicate that the law enforcement agency has set a policy to not write a report in the event of a “minor” PDO crash. There are other possibilities, of course, so a finding like this could start a dialog versus offer proof of under-reporting.

Another helpful measurement is to look at crash reporting levels (and the ratio measure) over time. If things change dramatically from one year to the next, that may indicate a shift in the agency’s priorities or practices that may be discussed.

3. **Training for new leaders.** One of the common reasons given for under-reporting is that a new police chief or sheriff takes charge in a department and that person does not understand the importance of crash reporting. This can lead to a change in reporting policies at the agency level that do not match past practices and are not in line with standing agreements on reporting. Sharing the existing MOUs with new leaders, and, early in their tenure, meeting with them to make the case for complete and accurate reporting can help to avoid problems.





**Fiction: We don't need details about every person.**

**What it is:** The fiction is that there is no useful reason for collecting detailed information about every single person involved in a crash—including the people who weren't injured and who weren't driving (or bicycling or walking). This belief is based on some flawed assumptions or a lack of knowledge of how safety analysis works, especially at the level of individual people and their crash outcomes. People who believe this fictional statement may think that safety analysis focuses only on the injured people and, even within that group, only on the most seriously injured. In fact, they may believe that only the single-most serious injury in a crash matters because that is what determines the severity level for the entire crash.



***Fact: We use information on everyone in crashes to understand risk and outcomes.***

Going back to the earliest days of NHTSA, knowing something about people who were not injured has contributed important comparison cases for safety analysis and effectiveness. The first estimates of seat-belt effectiveness were based on having detailed data on every person in the vehicle and comparing outcomes for those who were belted compared to those who were not. Our most advanced safety analyses today rely on having data on all occupants in each vehicle to give us important clues about occupant protection effectiveness, crash dynamics, and the interactions of factors such as age and frailty (pre-conditions) with the factors that contribute to crash severity (speed, vehicle type, collision type, etc.).

Sometimes, collecting details about every single occupant can be a daunting task—imagine a crash involving two buses full of passengers, some seated and some standing. Getting complete information on all people while managing the crash scene and making sure the appropriate emergency response units are called can be beyond the officer’s ability. That is understandable, and perhaps unavoidable. However, in most circumstances, it should be possible to record the ages, seating positions, injury levels, and occupant protection use for each vehicle occupant even with large numbers of occupants.

The information is vitally important in safety analyses, especially from the epidemiological perspective. Imagine the difference between knowing that a child in a child safety seat was injured in a crash, while their sibling (also in a child safety seat) was not injured versus knowing only that a child was injured in the crash. Excluding the uninjured sibling misses some important clues about the dynamics of the crash, possible incorrect use of child safety seats, and more. Because such cases are (fortunately) rare, missing information from even one such case can mean that we lose the ability to analyze an important factor in determining crash outcomes.

**How to promote the facts:** To address this concern, Tribal governments can consider the following action:

- 1. Develop specific information and training on the issue.** In this case, a specific set of material that promotes complete recording of all involved people could take the form of a brief roll-call video, training, an information sheet, or even instructions in the police officers’ reporting manual. The goal should be to explain the importance of the information and to encourage officers to do the best they can to collect key data elements on every person involved, even if they are not injured or killed.



**Fiction: If vehicles are moved or people are gone, I can't fill out the crash report.**

**What it is:** The fiction is that officers cannot fill in information about vehicles that have moved, or people transported before their arrival. This typically takes the form of a note in the narrative or diagram saying, “vehicles moved before officer’s arrival on scene” or “individual transported before officer’s arrival on scene.” One of the reasons given for such notes is that officers (and departments and some States’ court systems) view the crash report as a legal document and the officer is uncomfortable swearing to information if they have not witnessed it or had the opportunity to interview appropriately. Another consideration is that it is simply easier to write such a note versus track down the required information after the fact.



***Fact: An officer's opinion is better than leaving the crash report blank.***

Officers have a duty to record the events as best they can and only rarely is it impossible to get a reasonably complete picture of what happened or who was involved in the crash. Officers very typically interview crash-involved parties and witnesses to piece together an understanding of what happened. The fact that the vehicles were moved does not remove all evidence (tire marks, broken pieces on the ground, etc.) that can tell the officer if physical evidence matches the statements from individuals. Only rarely would it be completely impossible to describe and diagram the crash. And, in those cases, the officer can say more in the narrative and diagram than simply that vehicles or people were moved.

For people transported from the scene, it may not be possible to interview them immediately (if ever). However, the officer may be able to get information about the individual by following up with EMS and the medical facilities treating the person. Law enforcement likely is allowed to access and record that information. The officer should be able to collect age, gender, and injury information. Personal identification and seating position may be more difficult to collect (e.g., if the person is not conscious and the medical care providers are prohibited from sharing some details, or simply do not know the answers).

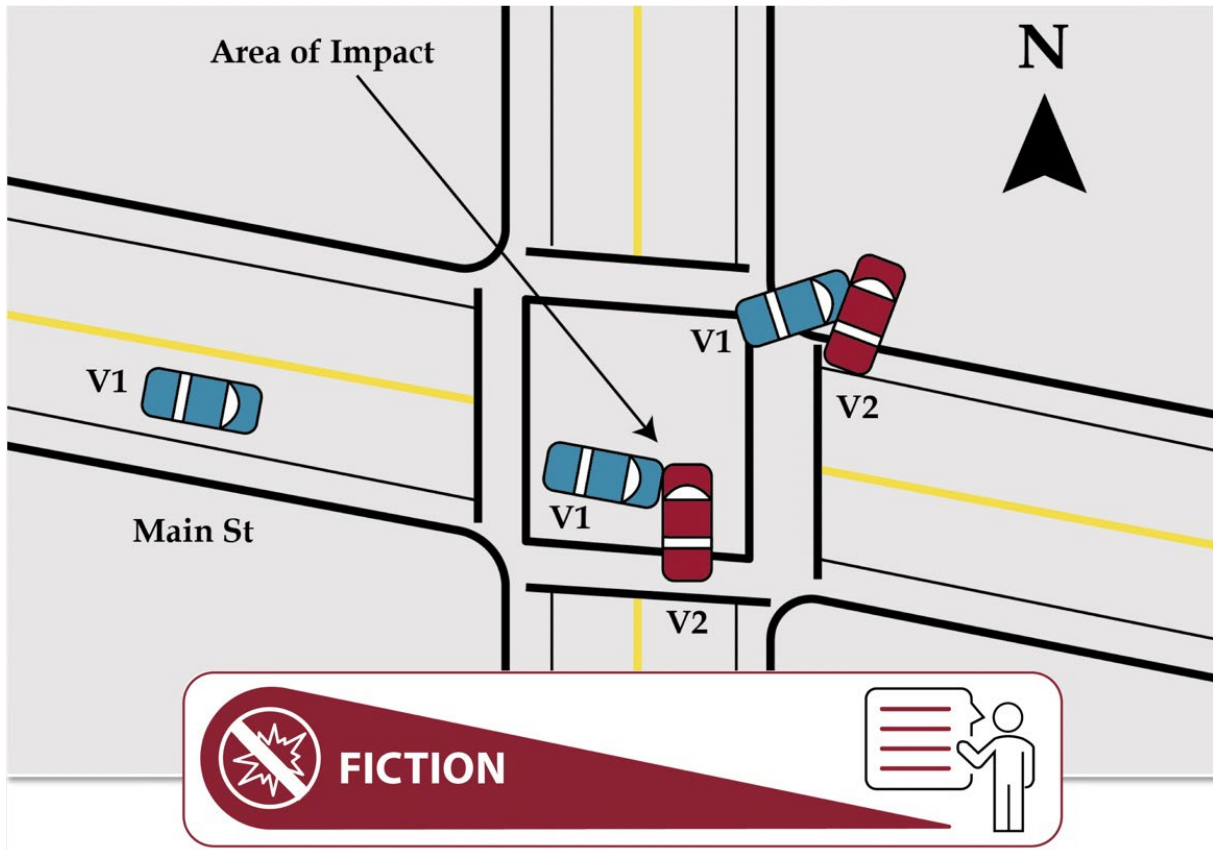
One key point to make about the importance of the narrative and diagram is that these elements of the crash report are useful in a formal quality control process. Reviewers can look at the narrative and diagram in comparison to the coded portions of the report to see if all the information is consistent and makes sense. When the narrative or diagram are missing, the ability to perform this quality control step disappears.

**How to promote the facts:** To address these concerns, Tribal governments can consider any of the following actions:

1. **Follow-up with individual agencies and officers.** Especially when done immediately upon receipt of a crash report, individual follow-up with the officer who wrote the report and/or the department that submitted the report will help them to gain an understanding that the information is needed and wanted. A rapid response is crucial if the Tribe hopes to get the missing information into the record. As memories fade or people involved in the crash become unavailable, the chances of getting better information grow smaller. Such conversations will also help the Tribal government understand the limits of what the law enforcement officers can do in an individual situation. There will be some cases where further information is truly impossible to get.
2. **Develop specific information and training on the issue.** As in other areas mentioned in this tool, a specific set of material that promotes complete recording could take the form of a brief roll-call video, training, an information sheet, or even instructions in the police

officers' reporting manual. The goal should be to explain the importance of the information and to encourage officers to do the best they can to provide an informative narrative and diagram.

3. **Implement edit checks for minimum size of the narrative and diagram.** The Tribal government can set a minimum threshold for the size of the stored narrative and diagram that would, at the least, warn the officer that a more extensive record is expected. One possibility is to look at the record size when the narrative is too skimpy and set a minimum threshold to trigger the warning as the officer submits their report. Similarly, if the diagram image is small, that could trigger a warning that the expectation is a complete record.



**Fiction: Nobody looks at the crash narrative and diagram.**

**What it is:** This fiction is separate from the one above because it deals with a slightly different misconception—that those portions of the crash report are never used. This view may come from a general lack of any published analyses or summaries that reference the narratives and diagrams. There also may be some resistance to completing these portions of the form because they take time and effort to do well. As mentioned earlier, there may be a concern over giving an opinion in a document that the officer may have to defend in court. It is also true that until the recent advent of electronic reporting systems, analyzing narratives required tedious manual effort.



***Fact: Narratives and diagrams are important parts of the crash record.***

We've already mentioned their use in quality control—a crucial step in managing crash data. The two are also extremely important for two types of analysis. The first is engineering analysis of locations, especially in what is known as crash diagramming. In developing an aggregate crash diagram for a location, the analyst reviews all the relevant crash reports for the specified place on the roadway. The analyst will show the different types of crashes at the location using a standard notation of vehicle movements and collision types. This is used oftentimes in road safety audits and helps decision-makers understand the crash history and ultimately evaluate what kinds of safety treatments may be needed at the location.

The second important analysis type is exploration of new and emerging issues. By using the text-based narratives, analysts are sometimes able to estimate the prevalence of crash contributing factors that are not already coded on the crash report form. This has helped safety decision makers determine if a problem is affecting their area's crash experience. Such analyses also help the crash data managers decide if a new code may be needed on the report. One example is distraction, and especially distraction due to cell phones. Several years ago, very few crash reports included a coded value to identify any specific sources of distraction that may have played a role in a crash. When safety experts raised the issue that distraction might be a growing problem, and particularly in relation to cell phone use, analysts in States with an accessible archive of narratives were able to perform a text search to identify all records where cell phones were noted as a factor by the responding officer. This was a tedious process involving careful review of each narrative to sort out the cases where the cell phone was listed as a contributing factor from those where the officer merely noted the person's cell phone number (or similar non-contributing use). Because we can never truly predict what the next emerging issue will be, we need to be able to use narratives and diagrams as a resource.


**How to promote the facts:** To address the need for the narrative and diagram, Tribal governments can consider the actions listed in the preceding item. Other possible actions are:

1. **Periodically publish an emerging issues report.** Such a report could be based on a scan of the narratives for suggested key words related to new and emerging issues. Examples today might include electric motorized scooters or any advanced vehicle features on crash-involved vehicles. These items are generally not coded on today's crash reports, but they would be expected to show up in an officer's narrative if they played a role in a crash. By publishing information about these potentially important issues, the Tribe could show that it is taking a proactive approach and that the narratives have real value.
2. **Conduct Road Safety Audits and involve law enforcement.** In a typical RSA, one of the first steps is to complete an aggregate crash diagram. Law enforcement involvement in RSAs is essential for a variety of reasons. Many of the officers patrol the streets

regularly and have witnessed how people typically interact with each other and their environment. They can also elaborate on the details and findings of certain crashes. In the event that the reporting officer isn't present, the RSA team relies on the detailed crash narrative and diagram to understand the crash events. Also, as law enforcement is a critical tool to improve safety, the officers present can help identify and address any problems that could be mitigated through increased enforcement at the location. By participating in RSAs, officers would gain experience in how their crash data gets used and especially how the narratives and diagrams become an essential part of the record. They help to identify the most pressing problems and point to potentially effective countermeasures to address those problems.



[ CITATION NUMBER ]										INCIDENT REPORT <input type="checkbox"/>	REVISED REPORT <input type="checkbox"/>	FATALITY YES <input type="checkbox"/>
										INVESTIGATION COMPLETED? YES <input type="checkbox"/> NO <input type="checkbox"/>	Sheet of Sheets	
<b>TRAFFIC COLLISION REPORT</b>												
DO NOT WRITE IN THIS SPACE										ACCIDENT NUMBER	ADMINISTRATIVE	
MONTH	DAY	YEAR	24 HOUR TIME	S	M	T	W	T	F	S	COUNTY	COUNTY NUMBER
STREET ROAD OR HIGHWAY						DISTANCE FROM		(NEAREST) INTERSECTION STREET ROAD OR HIGHWAY				
IN CITY	NEAR CITY	NAME OF NEAREST CITY OR TOWN					CITY NUMBER	DISTANCE FROM NEAREST CITY OR TOWN LIMITS N S E W				
HIGHWAY CLASS	STATE HIGHWAY CODES	CONTROL NUMBER	INTERSECTION ID	LOCATION	COUNTY EAST SECTION LINE GRID	NORTH	RAILROAD CROSSING NUMBER					
MOTOR VEHICLES INVOLVED			NUMBER KILLED	NUMBER INJURED	ADMINISTRATIVE	COMMERCIAL MOTOR VEHICLE HAZ MAT PLACARD						
UNIT	OCCUPANTS	DRIVER	PEDESTRIAN	ANIMAL	TRAIN	OTHER	★					
NAME LAST	FIRST	MIDDLE	STREET/RFD			CITY	STATE	ZIP	★			
DOB MO/DAY/YR	SEX	DRIVER LICENSE NUMBER		STATE	CLASS	ENDORSEMENT(S)	RESTRICTIONS	PHONE				
INJURY BEVERITY	TYPE OF INJURY	INJURED TAKEN BY		AT	SAFETY EQUIPMENT IN USE			AIR BAG DEPLOYED	Y	N		
EJECTED? Y N	PINNED? Y N	CHEMICAL TESTS	RESULTS	DELIVERY PEDESTRIAN CONDITION	TOWED VEHICLE (DESCRIBE)							
VEH YEAR	COLOR	MAKE	MODEL	STYLE	SIZE	VIN	LICENSE PLATE NO	MO/YR	STATE	NUMBER		
<b>REPORTING AGENCY:</b>												
OWNER'S NAME SAME AS DRIVER	LAST	FIRST	MIDDLE	STREET/RFD			CITY	STATE	ZIP			
SECURITY VERIFICATION	INSURANCE COMPANY					POLICY NUMBER						
FROM MO DAY YR	AGENT NAME			ADDRESS			CITY	STATE	ZIP			
VEH REMOVED BY DRIVER											BURNED? Y N	
STATUTE/RESTRICTION											HAZ MAT PLACARD	



**Fiction:** I can't submit the report until every data element is completed.

**What it is:** This particular fiction is not very common; however, officers may feel that it is better to wait for complete information. This can happen if the crash is likely to result in a court case, if there are corresponding charges against an involved person, or if there is a serious injury that may result in a fatality after the fact. Another possible source of delayed submission is waiting for lab test results.



**Fact: An officers can submit a crash report and amend it later.**

So long as the report passes all of the completeness checks for required data elements, it can be submitted even if a change is anticipated later. If the report would not pass the established edit checks, that is a different situation. In most cases, the delay is unnecessary because a previously completed report can be amended. For example, it is common practice to update reports when lab test results are provided to the officer. Updates are also common when a person dies within the time period set under the Fatality Analysis Reporting System (FARS). New information is accommodated through the update process and data management practices are in place to accept and revise reports.

Delays are not usually a big problem; however, if a department is generally slow to submit cases it can become a problem especially as the time to close out a year's worth of data comes near. The Tribal government needs as complete a dataset as possible, as soon as possible, so that it can conduct analyses throughout the year and, after the year's end, can take a look at its crash experience quickly and with confidence. Departments should not make a practice of delaying reports except under circumstances that are clearly agreed upon with the receiving agency.

**How to promote the facts:** To address these concerns, Tribal governments can consider any of the following actions:

1. **Specify reporting expectations in the MOU.** Tribal governments and law enforcement agencies should agree to a standard for data submission timeliness. The timing should avoid words such as “within N days of *completing the investigation*” because such wording is vague. A more useful agreement is to set expected time windows for completion of the investigation and report submission. In most cases, especially if electronic crash reporting software is used, reports could be delivered within 24 hours of the crash. A reasonable timeframe for an MOU might be around 3 days for the *majority* of crashes. For more complex or serious crashes, the MOU could allow more time, but it should still specify an expected timeframe.
2. **Establish measures of timeliness for data submissions.** The Tribal government could create a performance measure for crash data timeliness that measures the number of days from the crash event to the time when the data arrived at the Tribe's central repository for inclusion in the database. By comparing among multiple agencies or looking at a single agency's performance across months or years, the Tribal data managers could quickly identify any changes in reporting pattern. By looking at extreme values (reports delayed by more than the agreed-upon number of days), a performance measure could also be created that would identify specific cases that should be reviewed. Both of these suggested performance measures would help open a dialog with the law enforcement agencies to identify any issues to address.



**Fiction: I only need the name and number from the commercial truck's door.**

**What it is:** This fiction arises from the obvious placement of owner name and carrier registration numbers on the door of a commercial vehicle's power unit, as required by law. This information is easily accessible and apparently matches the items that are requested on the crash form—what business owns the truck and what is its DOT number.



***Fact: The owner of the power unit may not be the party responsible for the trip.***

The paperwork carried by the driver will show the motor carrier responsible for the trip and, if relevant, their DOT number. The information on the door of the power unit may point to a leasing company that owns the vehicle but is not responsible for the trip.

**How to promote the facts:** To address this concern, Tribal governments can consider the following actions:

1. **Create a dashboard card and add instructions in the crash reporting manual.** A brief instructional card could show law enforcement officers how to examine a trip-specific record that the driver of the commercial motor vehicle *must* have with them. This may apply only to interstate commerce, so it is important to also provide instructions on applicable intrastate commercial motor vehicle laws. It is important to show that the leasing company's information (which should be on the door of the power unit) may *also* be required (to list the vehicle owner); however, for the crash to be properly coded to the responsible party, the officer must get the information from the driver.
2. **Request training from the Motor Carrier Safety Assistance Program (MCSAP).** Every U.S. State has a designated motor carrier law enforcement agency. States receive MCSAP grants to operate on-the-road enforcement, manage inspections, conduct motor carrier reviews, and collect and report crash data. Many of these agencies offer training to other law enforcement agencies, including Tribal law enforcement agencies, if there is a need for additional commercial vehicle enforcement levels beyond what the State agency can afford. MCSAP grant funding may be available to cover the costs of this effort. In addition, the Federal Motor Carrier Safety Administration has high-priority grant programs for which some Tribes could qualify.



**Fiction: Local names or landmarks are the best way to locate a crash.**

**What it is:** From a local government perspective, local place names make the most sense. People in the community and the agencies responsible for safety at the local level all know what is meant by “in front of Joe’s garage” or “a quarter mile from” a particular landmark. When the data and the safety management are entirely local within the community, such landmark-based locations, or even locations based on the local names of roads, will suffice.



***Fact: There are several problems with local unique names as crash locators.***

First, and a specific concern for Tribal governments, is that some local place names might divulge the locations of sites that the Tribe wishes to protect. Historically important locations should be known and marked, but not released without proper consideration by the Tribal government. So, using those names may lead to unwanted release of information.

From a broader perspective, the use of local landmarks and road names to identify crash locations can make it very difficult to aggregate crashes reliably. That means decision makers might not be able to tell if a specific location is experiencing a crash frequency or severity problem. If there are multiple law enforcement agencies operating in the same area, reports may come in with different names for the same location. This is called aliasing. When that happens, someone has to do the work in post-processing to reconcile all the alias location names and assign the crashes to a single correct location.

It is also true that names change over time. Though no longer common with today's use of mapping software and pick-lists for street names, it was not uncommon in the past to find crashes referenced to landmarks or road names that no longer exist. "A half mile from the mine that was closed in 1962" does not work well as a crash location. Such defunct location indicators still show up from time to time, especially on paper-based crash reports from local law enforcement agencies.

**How to promote the facts:** To address these concerns, Tribal governments can consider any of the following actions:

1. **Implement an enterprise geographic information system and an all-roads linear referencing system.** Such systems are becoming the norm for roadway, housing, emergency dispatch (enhanced 911), and public works departments in Tribal government. They allow for better response to emergencies and better data security as well. For example, some Tribes keep a list of protected sites within their GIS so that when any work is planned, they can check the locations to make sure no places of historic or religious significance may be disturbed by the planned work. These lists can be kept secure so that no one outside those with appropriate Tribal government authorization can view the list and find out where those places are on the map.

GIS and LRS work together to unambiguously identify every road segment and intersection in the jurisdiction. When a crash happens, using the official map and the list of valid locations, law enforcement can provide an exact location for the crash. Doing it this way allows the Tribal government to also manage data integration among crash and roadway databases so that it can later analyze the crashes associated with particular roadway locations and features (such as curves, places with narrow shoulders, etc.).

Sharing the map (or at least a pick list of valid location names) with law enforcement is a tested way to get the location data to work seamlessly with the Tribal GIS. Using crash reporting software that includes a smart map is the most effective implementation of this idea. A smart map allows the officer to view an electronic map, zoom in on a location, and click on the exact spot where the crash occurred. As soon as the officer clicks on the map, the crash report is populated with the required location information including roadway names, distances from the nearest intersecting route, a location code, and any other information stored within the map.

Not all Tribes can afford such systems today; however, the move toward GIS and data governance over roadway and crash data will eventually see the most accurate solutions to the location naming problems applied. GIS and LRS implementations are the best solution today.

In the absence of electronic software to help the officers get the right location codes and names, a paper map would at least give them the most accurate accessible information to use for naming the on-street and nearest cross-street on the crash report. Posting street name signs and house numbers can also aid in the proper identification of crash locations and faster emergency response times.



**Fiction: I can't judge injury severity or damage.**

**What it is:** This fiction says that officers are not qualified to complete the data elements about injury severity or property damage (i.e., the cost of vehicle damage). Many versions of this fiction exist. It is still common to hear complaints that “any scratch costs more than \$1,000 to fix” or “the whole car isn’t worth \$1,000.” It is also true (not fiction) that medical professionals are more accurate judges of how severely injured a person is: the officers cannot diagnose internal injuries; they may be responding more to how much blood there is or how evidently painful the injuries are than to the actual seriousness of the injuries. Thus, the fiction says, if they can’t be totally accurate and correct, officers should not be asked to enter any of the information.





***Fact: Officers are the only source for some of this information in many crashes.***

Some people refuse treatment and never get seen in a medical facility. There may never be an insurance claim to fix a vehicle's damage, and insurers generally do not share claim information with government. Ultimately, the judgments of injury and damage from the officer are often the source of information available.

With training, officers learn to make these judgments consistently. The goal is to be as accurate as possible within the limits of the situation (an officer judging based on what they see in a visual inspection only). The expert analysts who use this data know the limitations. The people making safety decisions are well-equipped to understand what the data can and can't tell them.

It is also true that post-processing analyses can improve on the officer-supplied data in some cases. There are ways to link medical and crash data, for example, that provide a richer data source for assessing crash outcomes. Not every jurisdiction can do this, but it might be possible in some Tribal governments to link crash, EMS, emergency department, and hospital discharge data. Those linked datasets are more robust than crash data alone. Linkage, however, has yet to fully replace the officer-supplied information.

There are guides for how to judge the severity of an injury or damage to a vehicle. For injuries, the MMUCC injury severity levels are each defined with reference to the kinds of things an officer should look for in deciding what to code. These are standard definitions that align reasonably well with what medical evaluations of the patient will also conclude. The MMUCC 5th Edition guideline can be found online at <https://crashstats.nhtsa.dot.gov/Api/Public/Publication/812433>.

As for judgments of vehicle damage, many departments determine what the reporting threshold would amount to for a "standard vehicle" so that officers do not have to decide if replacing a fender on one car versus a different car would make a difference. This guidance helps interpret the PDO damage threshold in a way that officers can use consistently and reliably.

**How to promote the facts:** To address these concerns, Tribal governments can consider any of the following actions:

1. **Adopt the MMUCC definitions for A-, B-, and C-level injuries.** These data definitions are well established. The Federal Highway Administration requires all U.S. States to use the same definition for A-level (Suspected Serious Injury), and Tribes could choose to adopt the entire data element definition for injury severity (to include B- and C-level injuries). This saves effort by not making up a new, different definition and using the established definitions offers compatibility with many States' injury level codes.

One big advantage of using the MMUCC definitions for injury severity is that each level is clearly defined with examples so that it is much easier for an officer to decide which of the three severity levels applies to any injured individual in a crash.

2. **Develop informational messages and training on damage assessment and injury severity.** Both of these data elements are amenable to training using simple messages on how to collect the information accurately. The Tribal government can use material already developed, such as the video from the Tennessee Highway Patrol on how to judge injury severity: [www.youtube.com/watch?v=KzXz0xfOvZE](http://www.youtube.com/watch?v=KzXz0xfOvZE).

Other resources may need to be developed by the Tribe, such as a briefing on how to judge vehicle damage accurately and consistently.



**Fiction: Only State and Federal agencies benefit when Tribes share data.**

**What it is:** One common misperception is that when Tribal agencies share data with State and U.S. Federal databases, only the State and U.S. Federal government benefit; either by additional information or through additional funding.



***Fact: Everyone benefits from data-sharing.***

Everyone benefits when we can more fully understand what is causing crashes and how to address those causes. As leaders in public safety, law enforcement officers have a critical role in improving the safety for everyone on the road. Through negotiated data-sharing agreements, Tribal and non-Tribal agencies can ensure that the arrangement benefits all parties and that, ultimately, everyone has a better understanding of roadway safety issues.

Federal safety funding is largely distributed to States based on population and road mileage. The State then allocates that funding to locations, projects, or strategies that address fatal and serious injury crashes. If Tribal agencies do not share their crash data with the State, they may miss out on funding opportunities because a statewide crash analysis would include State or interstate roadways that traverse Tribal lands.

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