

WASHINGTON STATE AND TRIBAL DATA SHARING PARTNERSHIPS

ROADWAY SAFETY DATA AND ANALYSIS

CASE STUDY FHWA-SA-16-111

Federal Highway Administration Office of Safety

Roadway Safety Data Program http://safety.fhwa.dot.gov/rsdp/



December 1, 2016





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*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380. (Revised March 2003)

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ACRONYMS

ACRS BAC CODES EMS FARS FHVVA GIS GUM HSIP HSP IRB LEI LTAP MHSO MVA NCSA NHTSA NSC QA/QC SHA SHSP	Automated Crash Reporting System Blood alcohol content Crash Outcome Data Evaluation System Emergency Medical Services Fatality Analysis Reporting System Federal Highway Administration Geographic Information System General Use Model Highway Safety Improvement Program Highway Safety Plan Institutional Review Board Lower Extremity Injury Local Technical Assistance Program Maryland Highway Safety Office Motor Vehicle Administration National Center for Statistics and Analysis National Highway Traffic Safety Administration National Study Center (for Trauma and Emergency Medical Services) Quality Assurance/Quality Control State Highway Administration
-	C ,
STAR	Shock, Trauma, and Anesthesiology Research
TRCC	Traffic Records Coordinating Committee
TTAP	Tribal Technical Assistance Program

EXECUTIVE SUMMARY

In Washington State, the traffic fatality rate for Native Americans is 3.5 times higher than the rest of the population. Tribal and State agencies have recognized the need for improved data in order to accurately identify and address Tribal transportation safety challenges. In 2007, the Washington State developed the eTRIP/SECTOR software program to efficiently bring together data sources and share data. While some Tribes have begun using the software, other Tribes have expressed data sharing concerns. Washington Traffic Safety Commission (WTSC) has been working as a liaison between Tribal agencies and the eTRIP/SECTOR team to address those concerns and facilitate Tribal transportation data sharing.

INTRODUCTION

In Washington State, the traffic fatality rate for Native Americans is 3.5 times higher than the rest of the population. While the fatality rate for Native Americans is decreasing, that decrease is slower than that of other populations.⁽¹⁾ The Washington Transportation Safety Commission (WTSC) works to address Tribal transportation safety concerns through the Tribal Traffic Safety Advisory Board that assists both the Tribes and the WTSC in a number of initiatives to reduce fatalities and injuries on Tribal lands. The Board held a strategy session in the fall of 2015 and identified data improvement as the greatest need to address traffic safety. This session also revealed Tribal jurisdiction over data is a key issue as Tribes prefer not to share crash data due to sovereignty concerns.⁽²⁾ In 2007, the State developed the Electronic Traffic Information Processing (eTRIP) software program to bring together data sources and efficiently share data.⁽³⁾ Some Tribes have expressed data sharing concerns over a component of eTRIP—a free program called Statewide Electronic Collision & Ticket Online Records (SECTOR). SECTOR is an automated data-collection system providing Law Enforcement Officers the ability to create and submit tickets and collision reports electronically from their patrol car or other agency computer. SECTOR also provides prosecutors the ability to review, reject, or accept criminal tickets generated by an officer. The prosecutor also has the ability to generate tickets and route all approved tickets to the appropriate court. WTSC has been working as liaison between Tribal agencies and the eTRIP/SECTOR team to address those concerns and facilitate Tribal transportation data sharing.

BACKGROUND

Washington State and Tribal agencies have been working through the years to grow their relationships and achieve mutual goals. In 1989, the State of Washington and the 26 federally recognized Indian Tribes of Washington established the Centennial Accord to establish goals for improved services and identify the obstacles to achieving those goals. The Accord provided a framework for government-to-government relationship building by acknowledging and respecting the sovereign status of the parties, improving and enhancing communications, and facilitating issue resolution.

Under the provisions established by the Centennial Accord, the WTSC works to address the transportation safety concerns in Indian Country through its Tribal Program. The WTSC Tribal Program is guided by Target Zero, Washington State's Strategic Highway Safety Plan (SHSP), and is advised by a Tribal Traffic Safety Advisory Board.⁽⁴⁾ The Tribal Traffic Safety Advisory Board assists both the Tribes and the WTSC in a number of initiatives to reduce fatalities and injuries on Tribal lands. The Board meets on a monthly basis and have guided the development of culturally relevant safety educational materials, including videos and print items.⁽⁵⁾ In addition to the monthly meetings, the Board also holds strategic planning sessions. During the fall 2015

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strategy session, the board identified data improvement as the greatest need for addressing traffic safety concerns. This session also revealed that Tribal jurisdiction over data is a key issue as Tribes prefer not to share crash data due to sovereignty concerns.⁽²⁾ One method for improving Tribal data is through the SECTOR program, a State developed data-collection software that facilitates data integration and analysis.⁽⁶⁾ WTSC has been instrumental in working with Washington State Patrol (WSP) to conduct outreach to Tribal communities and promoting SECTOR.

OBJECTIVE

Both Tribal and Washington State agencies recognize the need to address the high proportion of Native American traffic related fatalities throughout the state. A key mechanism to identifying and addressing transportation safety concerns is through data improvements. The TRC eTRIP/SECTOR software provided at no costs to law enforcement agencies within the State has improved data integration and sharing among Tribal, State, and local law enforcement agencies along with transportation, licensing, and judicial agencies. However, some Tribes have expressed concerns regarding the ability of certain users to view Tribal data and the potential for misuse. The State and Tribal agencies have worked together to address these concerns and are in the process of implementing a solution that will allow more Tribes to share data through the eTRIP/SECTOR software.

AUDIENCE

This case study applies to the following audiences:

- State Agencies: Governor's Highway Safety Program, State Department of Transportation, State Law Enforcement, State Department of Public Safety, TRCCs, and Office of Highway Safety.
- Tribes: Tribal government, Tribal transportation agencies, Tribal liaisons to federal, State and local governments.
- Federal: Bureau of Indian Affairs and other agencies working with Tribes, Federal Highway Administration, NHTSA.

IMPLEMENTING ETRIP AND SECTOR

SECTOR is a part of the eTRIP initiative; a collaborative effort initiated in 2007 among State and local agencies to create an integrated system through which they share traffic-related information. The Washington State Traffic Records Committee (TRC), a statewide stakeholder forum created to facilitate the planning, coordination, and implementation of projects to improve the State's traffic records system, initiated eTRIP. The TRC is comprised of

representatives for State and local interests from the transportation, law enforcement, criminal justice, and health professions and includes Washington State Department of Transportation (WSDOT) and the State's designated highway safety office, the WTSC.⁽⁷⁾ The primary purpose of eTRIP is to reduce inefficiencies in the former paper-based process of collecting and sharing criminal and traffic citation, infraction, and collision information. There are currently 22 separate eTRIP projects occurring at various agencies and that fall into the following categories:⁽⁸⁾

- Hardware Acquisition (Scanners, Printers) for Local Law Enforcement.
- Local Law Enforcement SECTOR Implementation Support.
- SECTOR Training Administrators.
- SECTOR enhancements, based on eTRIP Governance Team priorities.
- SECTOR Law Table for Municipalities.
- SECTOR Prosecutor Training.
- SECTOR Implementation.

SECTOR is a stand-alone application that automates collision and traffic infraction and citation reports for law enforcement officers and uploads the reports to a central server. The reports are then routed to the appropriate agencies for subsequent processing and disposition.⁽⁶⁾ WSP provides the SECTOR application at no cost to local law enforcement agencies. However, while the program is free, the local agencies must have the hardware and network availability to support the program. The local agency designates a system administrator to manage user accounts and download the SECTOR program.

The Washington Association of Sheriffs and Police Chiefs (WASPC) coordinates SECTOR implementation throughout the State. The implementation process includes a presentation and demonstration of the software application and collection of deployment information.

PROGRAM APPLICATION

Figure I illustrates the SECTOR workflow. The SECTOR software is typically installed on an internet-accessible laptop in a patrol car. However, the officer can use SECTOR without a live internet connection as the software temporarily stores data in a local database. The officer then sends tickets and collisions to the SECTOR Central Server where Report Reviewers will download pending collision reports and perform a supervisory review.⁽⁹⁾

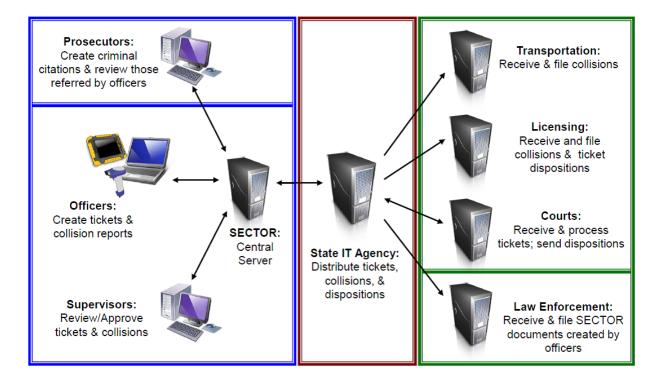


Figure 1. SECTOR Workflow Diagram (source: Washington State Traffic Records Committee).

The State IT Agency distributes the data into the respective receiving agency systems, including the transportation, licensing, courts, and law enforcement agencies. Inside of SECTOR there is an administrator-only view as a part of the "back office"—an area of the application that can be used to troubleshoot the application by viewing all of the data collected. The Department of Licensing (DOL), Administrative office of the Courts (AOC), and WSDOT also have access to this view.⁽¹⁰⁾

TRIBAL JURISDICTION AND DATA SHARING ISSUES

One of the primary concerns for some Tribes is who will have access to their data. The SECTOR Service Level Agreement is a contract between the client, such as a Tribe, and the WSP. The contract outlines each agency's roles and responsibilities and what the system will provide.

Despite the contract only existing between the Tribe and the WSP, the DOL, AOC, and WSDOT users still have access to the "back office" data.

One example of this access issue relates to ticket processing within SECTOR. If the AOC has a citation in one court but that citation is not within the aggregate system, the AOC administrator can log into the back office and retrieve the information on the ticket. The unrestricted access and ability for that AOC administrator to view all of the data concerns some Tribes who are

apprehensive about misuse and the resulting adverse consequences at a community or governmental level for Tribal members and the jurisdiction of the Sovereign Nations' justice systems.

The eTRIP committee is working to mitigate these concerns. In order to address the data sharing concerns, WSP needs to modify the architecture of SECTOR to prevent AOC, WSDOT, and DOL from viewing the Tribal data in the Back Office. There is already a process in place for some agencies to bypass AOC access to certain data elements. For agencies that use SECTOR but still use paper citations, they may submit select citation and infraction data through SECTOR.

Regarding collision reports, general users request collision reports through the Washington State Patrol Collision Records Division (CRD). CRD uses a separate tool to redact certain collision report elements. This process is completely separate and unrelated to SECTOR and in the Back Office, SECTOR Administrators can still view the full collision report information, including personally identifying information.

TRIBAL SECTOR IMPLEMENTATION

Despite the data sharing concerns, many Tribes within the State have chosen to adopt SECTOR. The first outreach for the SECTOR application was during the Northwestern Tribal Technical Assistance Conference in Chehalis, Washington. WSP engaged the Tribes by providing example benefits of the software along with demonstrations in a practical setting. WSP used demonstration units to show the entire process for creating and submitting crash reports and traffic tickets using SECTOR. WSP also explained how agencies can use the data collected and how it is linked to other jurisdictions. Many Tribal representatives viewed this meeting as a necessary outreach opportunity given the history of mistrust with the State.⁽¹¹⁾

An association of eight Tribal Police Chiefs, called Northwest Association of Tribal Officers, had a subsequent meeting to discuss the use of SECTOR. Two of the primary SECTOR concerns among the Police Chiefs were the data collected and cost. WSP explained that the application does have measures in place for SECTOR users to extract sensitive information from the data view within the application. The Police Chiefs also had concerns about the SECTOR form unique codes identifying Tribal members as they did not want this information publicly available. While the software was not perfect, WSP explained the process and steps in place to request changes and continually improve the system.

The second concern of the Police Chiefs was cost. SECTOR is free for law enforcement agencies within Washington State. Even with necessary hardware upgrades, the overall price was significantly lower than other available options. ⁽¹¹⁾

The Police Chiefs left the Tribal Police Chief Association meeting and reported the SECTOR information to their respective Tribes. For many Tribes, having the Police Chief suggest using SECTOR to the Tribal council was an effective mechanism to convince the Tribe to adopt the software. The following are the experiences of two of the Tribes, the Lummi Nation and the Puyallup Tribe, who were early adopters of the SECTOR software.

Lummi Nation Experience

For the Lummi Nation, the transportation planners learned about SECTOR during the Northwestern Tribal Technical Assistance Conference and were convinced of the benefits. However, the buy-in from the Police Chief was a primary factor in the Tribe's adoption of SECTOR. The Tribal Council trusted that the Police Chief was attentive to the best interests of the Tribe both in terms of additional data analysis capacity and risks involved with data sharing.

In order to use SECTOR, the Tribe had to perform vehicle equipment upgrades, such as new radios in order to allow for remote data uploads. While the hardware upgrades were underway, the Tribe was able to utilize SECTOR to collect the information at scene (including the GPS coordinates) and then upload the data to the server once the officer was back in the office. The upgrades have been on-going but were completed during summer 2016. Despite these upgrades, the free software still made the adoption of SECTOR a cost effective option for the law enforcement agency to convert from paper to electronic records.

SECTOR has provided the Lummi Nation with additional and better quality data, thereby allowing the Tribal Transportation Planners to better identify and understand transportation concerns. Additionally, since the Federal government ties funding to data, an increase in data quality has allowed the Tribe to be more competitive for funding. The Lummi Nation has been an outspoken advocate of SECTOR and has been willing to try new ideas in order to improve their data analysis and sharing capabilities.

The Tribe still has concerns regarding the potential for data mining by other agencies, specifically related to AOC's ability to view Tribal ticket data. The Lummi Nation is working with both the State and other Tribes to make sure SECTOR data sharing capabilities had better represent the Tribes' interests. These concerns have not been acted upon as no other agency has performed data mining on Lummi Nation data, and have not inhibited their use of SECTOR.

Puyallup Tribe

The Puyallup Tribe was another early adopter of SECTOR and has been using the software for approximately eight years. The urban, checkerboard nature of the reservation requires a higher level of collaboration between Tribal and non-Tribal agencies. The Puyallup Tribe experienced a number of benefits from implementing SECTOR, including the ability for Tribal law

enforcement to efficiently file reports and the ability to easily share information in the same format as other agencies with whom they collaborate. Regardless of whether a Tribal or non-Tribal law enforcement officer issues a citation or files a collision report, the information is available to the users of the system thus providing agencies with a comprehensive understanding of transportation safety concerns.

SECTOR also allows WSP to act as an intermediary agency. Given the checkerboard nature of the reservation, differing law enforcement agencies may issue citations for Tribal and non-Tribal members alike. The use of SECTOR allows these agencies to share that information with each other through one agreement with WSP, rather than having to establish separate agreements between each other.

Another benefit is related to how the Tribe and the City of Tacoma address emergency response. While the Tribe does have its own law enforcement agency, it does not have fire or paramedic services. The Tribe pays for the portion of Tribal calls that the city responds to. Sharing datasets through SECTOR allows the agencies to efficiently determine what portion of the calls were to the reservation and subsequently how much Tribe needs to pay for those services.

During the process of adopting SECTOR, there was a learning process for law enforcement officers to become accustomed to the new electronic report format. The Puyallup Tribe also had some initial concerns regarding Tribal data, particularly the sharing of data with the Washington State DOL and AOC. Ultimately, the Tribe determined the risk was low enough to adopt SECTOR.

Integrating crash and citation data has bolstered the Tribes ability to identify safety concerns but has also had an unintended consequence of making tribal-only data analysis more difficult. Due to the urban and checkerboard nature of the Puyallup reservation, it can be difficult for the Tribe to determine how to effectively administer transportation and public health safety efforts that specifically target their Tribal community.

Overall SECTOR has been useful to the Puyallup Tribe; it has improved the efficiency and ability of the Tribe and neighboring agencies to work together and share information.⁽¹²⁾

ADDRESSING TRIBAL DATA SHARING CONCERNS

In an effort to address the Tribal data sharing concerns, the SECTOR Support Team recommended modifying the SECTOR architecture to allow for two changes:

1) Create an AOC Bypass option to prevent selected tickets from being transmitted to the AOC.

2) Modify the architecture to prevent non-granted agencies from viewing selected tickets in the SECTOR Back Office.

These recommended changes may increase SECTOR participation from other Tribes as well.

In addition to these enhancement projects. Future projects include:

- Supervisor Review.
- Transfer of Records.
- Prosecutor Routing.
- Automating law table updates for municipalities and Tribal Nations (this project is complete and will go into production in January 2017).

RESULTS

Overall, the Tribes that have adopted SECTOR have experienced an increase in efficiency in law enforcement submission of tickets and collision reports. Additionally, the increased data sharing and analysis capabilities have proven to be effective in analyzing and diagnosing transportation concerns and funding transportation improvements.

BENEFITS

Some of the positive measures that the State and Tribes have taken to improving data sharing and analysis capabilities include:

- WSP outreach to all law enforcement agencies throughout the State.
- Demonstrated the usefulness of eTRIP/SECTOR to both Tribal Transportation Planners and the Tribal Chiefs of Police.
- Flexibility in software design so that necessary changes are adopted.

NEXT STEPS

Tribes would like to have the ability to extract Tribal data from the larger dataset to understand the issues specifically facing Tribal members.

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