



**STATE
OF
WASHINGTON**

**TRAFFIC RECORDS
ASSESSMENT**

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National Highway Traffic
Safety Administration
Technical Assessment Team

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NOTES AND DISCLAIMERS

NOTE: The terms "Highway Safety Information System" and "Traffic Records System" are interchangeable. This Advisory uses the term, "Traffic Records System" to be consistent not only with its traditional use, but also with references in many of the publications and documents listed at the back of this Advisory, as well as its use in various pieces of legislation.

NOTE: The term "crash" is used in lieu of the term "accident" in this document. Many of the references cited in this document use the term "accident" as do many of the laws defining crashes or accidents at the state level. This advisory recommends that states begin to use the term "crash" and to reflect that change in legislation.

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EXECUTIVE SUMMARY

This report contains over 50 recommendations for improvements to Washington State's traffic records system. The major recommendations from the body of this report can be categorized into five distinct areas. These areas of emphasis are listed below along with the specific numbered recommendations pertaining to that category. The state Traffic Records Committee (TRC) should consider adopting these recommendations as the major initiatives for improvements to the traffic records system.

Recent technology has introduced methods that greatly facilitate the flow of information. Laptops, Tablet PCs, and Personal Data Assistants significantly increase the speed and accuracy of data collection at the source. This technology has also revealed ways to eliminate the paper exchanges currently used to disseminate that data from its point of origin to the various users. The following recommendations are those contained within this report that focus on ways in which Washington State can utilize new technology to improve the accuracy and efficiency of data collection and dissemination.

1. Expedite implementation of a system for statewide electronic crash data collection and data transfer.
2. Ensure that statewide electronic crash data collection and data transfer is a significant component of the Traffic Records System Strategic Plan in order to coordinate this system with other emerging systems.
3. Ensure that electronic crash data collection and data transfer contains the following features:
 - In-car data collection process.
 - A consistent method of locating collisions regardless of the roadway's jurisdiction.
 - Linkage capabilities to permit inter-operability between crash data and data in other existing and emerging systems, such as driver, vehicle, citation, and EMS.
 - WSDOT should collaborate with managers of existing local systems to establish XML schemas and business edits for electronic transfer of crash data.
25. Ensure that statewide electronic crash data collection and data transfer will provide for overall quality improvements such as timeliness, completeness, and accuracy as well as eliminate redundant data entry processes.
14. Design and implement a centralized statewide citation tracking system containing information about a citation from "cradle to grave." Each record in the system should contain information about all actions pertaining to that citation, from its issuance to an offender, to its disposition by the court, and its placement on the driver history file (as appropriate, e.g., upon a conviction).

41. Expand the WTSC-sponsored statewide meeting of program area activities to include one specifically focusing on electronic input of traffic records data.
45. Charge the TRC with oversight of the development of e-data initiatives, such as electronic citations, crashes and Driving Under the Influence processing.
26. Establish a process for driver crash reports to be submitted electronically.
11. Establish an agreement between the DOL and the AOC to receive all court dispositions electronically.
32. Establish a collaborative effort between the AOC and the DOL to develop data definitions in order to transmit electronic disposition data to populate the driver history file.
12. Look at amending the Washington State statute to permit the DOL to obtain and use to the extent possible driver histories from Canada on persons seeking a driver's license who have held one in Canada and in British Columbia especially.
17. Establish data standards and definitions for the electronic transmission and population of the DOL driver history files from the AOC database of citation dispositions.
40. Encourage the move to electronic data transfer using identified standards to benefit users at all levels.

Crash information forms the most important component of the state's traffic records system. This data provides knowledge about every reportable traffic collision in the state. Washington has recently implemented a new crash file system called the Collision Location and Analysis System (CLAS). The inherent difficulties in bringing a new system online have slowed the processing of reports. Data feeds are still being refined in order to satisfy the various needs of users. Washington should take steps to ensure the timely processing of collision reports and that users have the data and tools available for sufficient analysis.

4. Acquire resources to process the backlog of crash reports and develop a plan for capturing all relevant data from incoming paper crash reports within 8 weeks of receipt.
5. Provide local jurisdictions with a tool to access and edit crash records.
 - Complete implementation of the Collision Data Analysis Tool (CDAT – formerly LASMS) with links to CLAS.
27. Provide crash information access to all trusted partners of WSDOT data, especially county and city road and enforcement officials.

39. Encourage the development of local analysis capability to analyze crash data for enforcement and traffic engineering purposes, including sharing of experience with analytical software programs for summarizing and analysis of such data.

Injury surveillance is a vital factor in determining the medical and financial outcomes of collisions statewide. The most glaring deficiency in Washington's injury surveillance system is the absence of a statewide Emergency Medical Services (EMS) registry.

18. Pursue rapid development and implementation of a computerized statewide EMS data collection system to include linkages to other components of the traffic records system.
19. Pursue eligible State and Federal highway traffic safety funding opportunities for a statewide EMS data collection system including Sections 402, 403, and 411, and citation surcharges.
21. Provide technical assistance to users of EMS and trauma data related to the importance, use, and benefits of injury data.
22. Provide the EMS providers and trauma facilities with an avenue for utilization of the data to make a difference in their profession and patient care modalities.
34. Develop an EMS data set and data dictionary that meets the needs of the EMS providers and the State EMS System.
35. Maintain an EMS data set and data dictionary for a minimum of five years before changes are made to the data elements (additions and/or deletions) for consistency and validity in data analysis and trauma systems evaluation trends.
37. Provide the EMS and Trauma Systems Advisory Committees with data reports and encourage involvement in establishing the EMS Trauma Registry System.

The State Traffic Records Committee is vital to the implementation of the various recommendations for improvements contained within this report. There are several actions Washington should take to improve the structure and effectiveness of the TRC.

42. Restructure the TRC to include an executive level (agency and department heads) and a technical support level (users, managers, and custodians of the traffic records system components.)
44. Appoint an enthusiastic, committed champion to head the TRC, who has both the time and the energy to develop collaborative relationships across what is now a very progressive group of traffic records professionals within the state, but who are currently operating independently.
43. Redefine the vision and mission of the TRC.

49. Obtain a statement of support for creating a new Traffic Records System Strategic Plan from the WTSC. A Memorandum of Understanding should be drafted and presented to the Commission for endorsement by each member.
50. Charge the TRC with the development of the Traffic Records System Strategic Plan and future implementation of the Plan's recommendations.
 - Charge the TRC with the responsibility for strategic planning for the highway safety information needs of all stakeholders with a vested interest in Washington's highway safety mission.
33. Assign the TRC the oversight responsibility to support and coordinate local electronic data systems development efforts, and fully integrate such systems as they are developed with the appropriate state systems.
15. Provide for information sharing between state and local law enforcement regarding the numerous initiatives for electronic citations (as well as crashes or DUIs). Assign this responsibility to the state's Traffic Records Committee.
52. Develop and implement an orientation process and resource manual that includes each partner's agency function and responsibilities that can be utilized by existing participants in addition to new and potential partners.

Washington currently employs a variety of methods to locate traffic related events. These methods have varying degrees of accuracy and often cannot be appropriately analyzed in relation to one another. The value of the state's traffic records system would be greatly enhanced by a method allowing for traffic events to be located to the same reference system.

6. Develop a plan for the selection, development, and implementation of a statewide GPS and GIS system for locating roadway features and incidents. (Note: The state of Washington is currently involved in the WA-Trans project that is developing a statewide GIS transportation mapping layer.)

ACKNOWLEDGMENTS

The Traffic Records Assessment Team would like to acknowledge and thank Phil Salzberg, PhD, Research Director, Washington Traffic Safety Commission (WTSC), for his support and able assistance in making this assessment possible.

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Kay Banks' support during the preparation phase of this report was especially appreciated. The team wishes to recognize her patience, skills, cooperative spirit, and sense of humor.

The team would like to thank Clayton Hatch, team facilitator, for giving a national perspective to the assessment process and its goals. The team would also like to thank Joyce Jones, NHTSA Headquarters and Neill Raymond, Region X, NHTSA for their contributions.

The team would also like to thank the principal participants in the assessment for the time invested, the information they presented, and their candor in answering the many questions put forth by the team.

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INTRODUCTION

A complete traffic records program is necessary for planning (problem identification), operational management or control, and evaluation of a state's highway safety activities. Each state, in cooperation with its political subdivisions, should establish and implement a complete traffic records program. The statewide program should include, or provide for, information for the entire state. This type of program is basic to the implementation of all highway safety countermeasures and is the key ingredient to their effective and efficient management.

As stated in the *National Agenda for the Improvement of Highway Safety Information Systems*, a product of the National Safety Council's Traffic Records Committee:

"Highway safety information systems provide the information which is critical to the development of policies and programs that maintain the safety and the operation of the nation's roadway transportation network."

A traffic records system is generally defined as a virtual system of independent real systems which collectively form the information base for the management of the highway and traffic safety activities of a state and its local subdivisions.

Assessment Background

The Traffic Records Assessment is a technical assistance tool that the National Highway Traffic Safety Administration (NHTSA), the Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA) offer to state offices of highway safety to allow management to review the state's traffic records program. NHTSA, FMCSA and FHWA have co-published a Highway Safety Program Advisory for Traffic Records which establishes criteria to guide state development and use of its highway safety information resources. The Traffic Records Assessment is a process for giving the state a snapshot of its status relative to that Advisory.

This assessment report documents the state's traffic records activities as compared to the provisions in the Advisory, notes the state's traffic records strengths and accomplishments, and offers suggestions where improvements can be made.

Methodology

The assessment process follows a "peer" review team approach. Working with the NHTSA Regional Office, the FHWA Division Office, FMCSA, and the State's Highway Safety Office, the NHTSA selected a team of individuals with demonstrated expertise in major highway safety program areas including: law enforcement, engineering, driver and vehicle services, injury surveillance systems, and general traffic records development, management, and use. Credentials of the assessment team are listed in the Team Credentials section of this report. The state officials who were interviewed during this assessment are listed in the List of Presenters section. Throughout the assessment, NHTSA, FMCSA, and FHWA representatives served as observers and are also listed in the Acknowledgments section.

Recommendations

The recommendations in the sections following may include suggestions on how they might best be achieved based on the experience of team members and information provided.

Report Contents

In this report, the text following the "*Advisory*" excerpt heading was drawn from the Highway Safety Program Advisory for Traffic Records. The "*Advisory*" excerpt portion is in italics to distinguish it from the "Status and Recommendations" related to that section which immediately follows. The status and recommendations represent the assessment team's understanding of the state's traffic records system and their suggestions for improvement. The findings are based entirely on the documents provided prior to and during the assessment, together with the information gathered through the face-to-face discussions with the listed state officials. Recommendations for improvements in the state's records program are based on the assessment team's judgment.

It is recognized that, based on resources and other program priorities, the recommended improvements would be considered for implementation through a strategic plan established by the State Office of Highway Safety in coordination with all affected state and local agencies.

The report will follow the outline in the Advisory and present the "*Advisory*" excerpt followed by the "Status" and "Recommendation" for each section and subsection of the Advisory. Section 1-A would present the text from the Advisory related to Crash Information followed by a statement of the findings and the recommendations for improvements to crash information. Section 1-B would repeat for Roadway Information, etc.

SECTION 1: TRAFFIC RECORDS SYSTEM INFORMATION COMPONENTS

At the time of passage of the Highway Safety Act of 1966, state central traffic records systems generally contained basic files on crashes, drivers, vehicles, and roadways. Some states added data on highway safety-related education, either as a separate file or as a subset of the Driver File. As highway safety programs matured, many states added Emergency Medical Services (EMS) and Citation/Conviction Files. Additionally, some states and localities also maintain a Safety Management File, which consists of summary information from the central files useful for problem identification and safety planning.

As the capabilities of computer hardware and software systems increased and the availability of powerful systems has expanded to the local level, many states have adopted a more distributed model of data processing. For this reason, the model of a traffic records system needs to incorporate a view of information and information flow, as opposed to focusing on the files in which that information resides. Figure 1 displays this view of distributed data processing in a traffic records system.

Under this more distributed model, it doesn't matter whether data for a given system component are housed in a single file on a single computer or spread throughout the state on multiple local systems. What matters is whether or not the information is available to users, in a form they can use, and that this information is of sufficient quality to support its intended uses. Thus it is important to look at information sources. These information sources have been grouped to form the following major components of a traffic records system (see also Table 1):

- Crash Information
- Roadway Information
- Vehicle Information
- Driver Information
- Enforcement/Adjudication Information
- Injury Surveillance Information

Together, these components should provide information about places, property, and people involved in crashes and about the factors that may have contributed to the events described in the traffic records system. The system should also contain information that may be used in judging the relative magnitude of problems identified through analysis of data in the traffic records system. This should include demographic data (social statistics about the general population such as geographic area of residence, age, gender, ethnicity, etc.) to control for differences in exposure (normalization) and cost data for benefit/cost and cost effectiveness determinations. Performance level data should be included to support countermeasure management.

Further descriptions of these types of information are provided in the following sections.

Figure 1: Model of Distributed Data Processing in a Traffic Records System

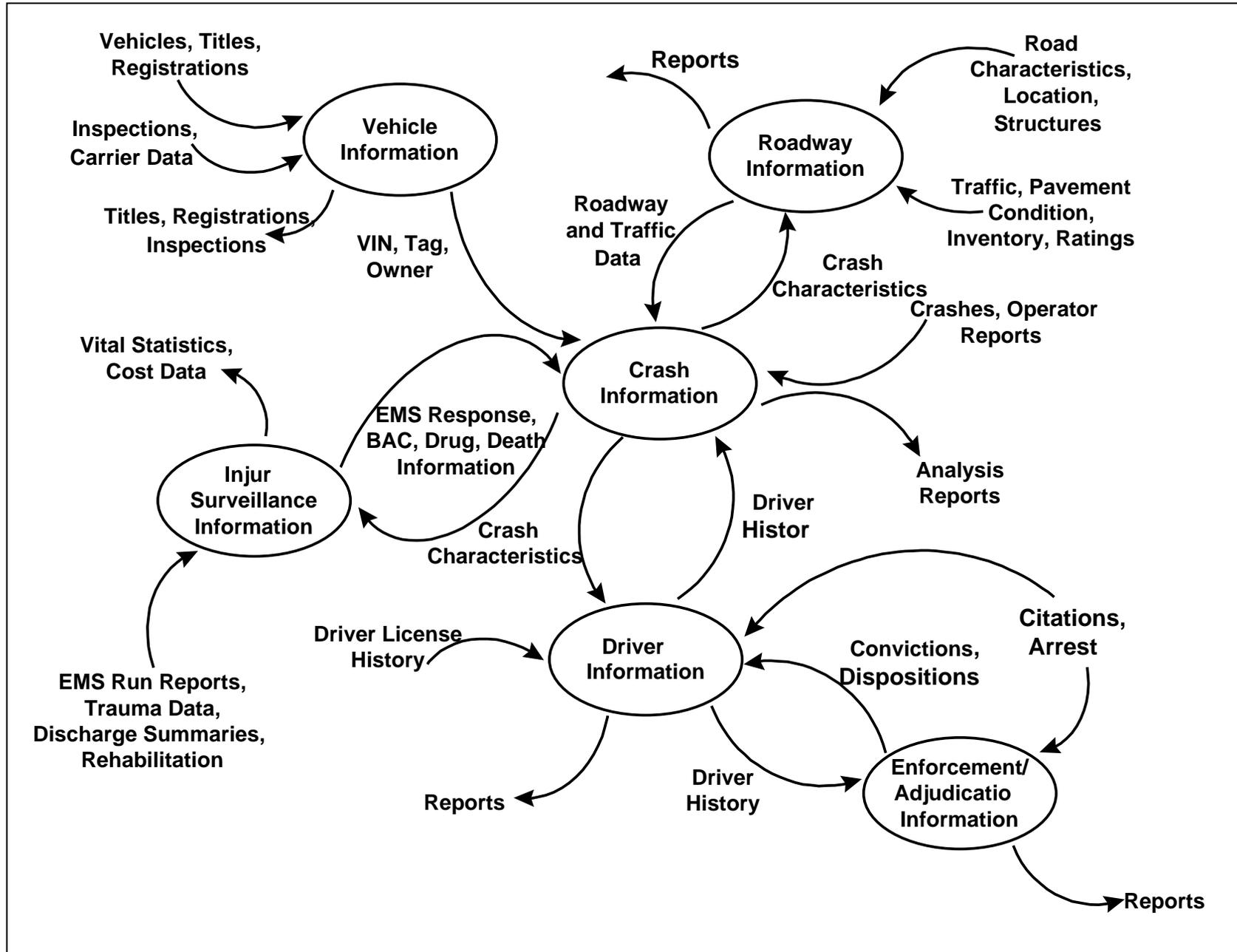


Table 1. Components of a Traffic Records System

COMPONENTS		EXAMPLES
Crash		<ul style="list-style-type: none"> • Weather conditions and pavement • Illumination • Time of Day, Day of Week • Avoidance maneuvers • Violation of traffic law (speed, turns, failure to obey, reckless driving) • Number and severity of injuries or level of property damage • Number of vehicles involved • Manner of collision and speed • Object struck • Person type (driver, occupant, pedestrians) • Substance abuse • Safety device use
Injury Surveillance System		<ul style="list-style-type: none"> • EMS response time for driver/pedestrian/pedacyclist • Hospital assessment of injury severity • Hospital length of stay and cost • Rehabilitation time and cost
Roadway		<ul style="list-style-type: none"> • Location referencing system • Roadway character (jurisdiction, classification, surface, geometries) • Structures (bridges, tunnels) • Traffic control devices, signs, delineations, and markings • Roadside features (hardware, conditions, bike lanes, sidewalks, land use) • Rail grade crossings • Traffic volume and characteristics
Vehicle	All	<ul style="list-style-type: none"> • Type and configuration • VIN • Age/model year • Weight • Registration information/Plates • Defects • Owner information • Safety devices (type and condition)
	Commercial	<ul style="list-style-type: none"> • Carrier information • Hazardous materials/Placards • Inspection/Out of Service Records
Driver		<ul style="list-style-type: none"> • Age/DOB • Gender and Ethnicity • Experience, driver education • License status • Conviction history
Enforcement/Adjudication		<ul style="list-style-type: none"> • Citation tracking • Traffic case volume • Conviction • Sentencing • Case tracking

Section 1-A: Crash Information

The Crash Component documents the time, location, environment, and characteristics (sequence of events, rollover, etc.) of a crash. Through links to the crash-involved segments of Roadway, Vehicle, and Driver Information, the Crash Component identifies the roadways, vehicles, and people (drivers, occupants, pedestrians) involved in the crash and documents the consequences of the crash (fatalities, injuries, property damage, and violations charged). In addition to providing information on a particular crash, the Crash Component supports analysis of crashes in general and crashes within specific categories defined by: person characteristics (e.g., age or gender), location characteristics (e.g., roadway type or specific intersections), vehicle characteristics (e.g., condition and legal status), and the interaction of various components (e.g., time of day, day of week, weather, driver actions, pedestrian actions, etc.).

The Crash Component of the Traffic Records System should contain some basic information about every reportable motor vehicle crash on any public roadway in the state. Details of various data elements to be collected are described in a number of publications. The Model Minimum Uniform Crash Criteria (MMUCC) provides a guideline for a suggested minimum set of data elements to be collected for each crash. Additional information should be collected (as necessary) for crashes involving an injury or fatality to meet the requirements for tracking and analysis for the state, and other systems (e.g., the Fatality Analysis Reporting System [FARS], General Estimates System [GES]).

Status

The Washington State Department of Transportation (WSDOT) operates and maintains the Collision Location and Analysis System (CLAS), the official crash file for the state. This function was previously performed by the Washington State Patrol (WSP). Attempts to convert to an OCR based data system in 1996 and 1997 were not successful, creating a multi-year backlog of unprocessed crash reports. The last full year of data in the WSP system is 1996. Since assuming the function, WSDOT has entered all data for 2002, and is now entering data for 2003. Limited data for State Highways is available from 1999-2001, and for cities and counties, 2001. WSP personnel formerly administering the system now perform the front-end quality control and prepare the forms for scanning and indexing.

Police reported crashes (crashes involving death, injury or damage in excess of \$700) are reported to WSDOT on the Police Traffic Collision Report (PTCR). Drivers are required to submit a report only if a crash has not been investigated by a police officer. These reports, filed on the Vehicle Collision Report (VCR), are held for 60 days and entered on CLAS if a police report is not received in that period. WSDOT enters 130,000 crash records annually, about 90 percent of which are based on the PTCR.

WSDOT has taken the initiative to develop plans for electronic crash reporting, recognizing that no coordinated, statewide electronic crash data collection and reporting system currently exists. Several issues for the successful implementation will need to be addressed as the state progresses with this project:

Location data – collecting data for local crashes is time consuming and inefficient; the State will need to acquire centerline GIS coordinates for all locations, not just state routes.

Linkages – will need to assure data elements will link to other data systems such as the court citation databases, EMS when implemented, etc.

Driver/Vehicle records access – will need real time access to driver and vehicle databases for retrieval of information to populate the electronic reports.

Existence of local electronically based systems – will need to address any compatibility issues with those localities.

Driver reports – continuing to enter driver reports from hard copies diminishes the benefits of a fully electronic system.

WSDOT is coordinating with a variety of stakeholders. A reconstituted Traffic Records Committee (TRC) needs to be involved with that process and to help insure that all stakeholders are involved with the further development of the CLAS.

CLAS has provided the Washington Traffic Safety Commission (WTSC) with a copy of the 2002 file for their research and analyses and also provides a monthly update from the 2003 file. CLAS also provides the counties with a 12-spreadsheet extract of data that the county engineers must manipulate to extract usable data. If infrastructure and capacity issues can be resolved, WSDOT may be able to give cities and counties greater control over the frequency and format of their data extracts. The Department of Licensing receives a weekly direct data stream which populates driver records. Other users will require additional outputs.

There is no information related to EMS captured on the crash report, and there is no EMS reporting system from which to capture the data. Washington does have a Major Accident Investigation Team (MAIT) whose role is to report on high profile and other serious events. This unit utilizes resources from several agencies and disciplines throughout the State including the medical community. MAIT reports include valuable information exceeding that which is captured in routine crash investigations.

During the period when no automated crash data were available, the FARS database remained the single consistent and reliable system. This system is a model of interagency cooperation. However, the FARS analysts have experienced difficulties in obtaining toxicology results from medical examiners and county coroners. Nevertheless, greater accuracy and consistency with state generated information has resulted.

Recommendations

1. Expedite implementation of a system for statewide electronic crash data collection and data transfer.
2. Ensure that statewide electronic crash data collection and data transfer is a significant component of the Traffic Records System Strategic Plan in order to coordinate this system with other emerging systems.
3. Ensure that electronic crash data collection and data transfer contains the following features:
 - In-car data collection process.
 - A consistent method of locating collisions regardless of the roadway's jurisdiction.
 - Linkage capabilities to permit inter-operability between crash data and data in other existing and emerging systems, such as driver, vehicle, citation, and EMS.
 - WSDOT should collaborate with managers of existing local systems to establish XML schemas and business edits for electronic transfer of crash data.
4. Acquire resources to process the backlog of crash reports and develop a plan for capturing all relevant data from incoming paper crash reports within 8 weeks of receipt.

Section 1-B: Roadway Information

Roadway information includes roadway location, identification, and classification, as well as a description of a road's total physical characteristics and usage, which are tied to a location reference system. Linked safety and roadway information are valuable components in support of a state's construction and maintenance program development.

Roadway information should be available for all public roads in the state whether under state or local jurisdiction. A location reference system should be used to link the various components of roadway information as well as other information sources (e.g., Crash/Environment information, EMS records) for analytical purposes.

Status

The public road system in Washington comprises 82,000 miles of streets and highways, 7,000 of which are classified as the state trunk system maintained by the Washington State Department of Transportation (WSDOT). There are 3,331 miles of the road system on the National Highway System and of these 779 miles are Interstate Highways.

The WSDOT is decentralized into six Districts. To help manage this road system, the WSDOT designed and implemented a Transportation Information and Planning Support System (TRIPS), that includes sub-files of crashes, traffic, and road geometric characteristics. This system allows intra-department access to the transportation data needed to effectively execute their work tasks. The primary function of TRIPS is to meet the information needs for the design, construction, maintenance, safety and management of highways on the state road system.

WSDOT employs several programs to correct problem locations. These include:

- High Accident Locations (HAL) – identified using collision, traffic and roadway data. Spot locations on the state highway system that experience a rate of higher than average number of serious crashes over a two-year period.
- High Accident Corridors (HAC) – identified using collision and roadway data. Sections of state highway one mile or longer that experience an above average number and severity of collisions over a 5-year period.
- Pedestrian Accident Locations (PAL) – identified using collision and roadway data. Spot locations on the state highway system that experience at least four reported vehicle-pedestrian collisions over a six-year period.
- Multi-lane at-grade high-speed intersections – identified using collision and roadway data. Intersections on the state highway system that meet certain criteria based on number of lanes, access control and speed limits.
- RISK – The risk program uses statewide collision, roadway and traffic data to develop accident frequency prediction models. The models are developed using

three years of accident data. Roadside severity indices are used to determine probable accident severity, rather than threshold levels of accident frequency. The indices are then compared to the frequency predictions. Those sites with the highest benefits are chosen for possible correction.

- Pavement Management – deficient areas of pavement surface are identified using roadway data.

Washington uses four basic location reference methods depending upon the jurisdiction where the collision occurred. Collisions occurring on city streets are located by the names of the primary and closest intersecting streets. Collisions occurring on county roads use the county road number and milepost. There is one exception to this method: King County in which Seattle is located, uses a Route Order System that is based on an X and Y grid system. Collisions occurring on the state highway system use the state route number and milepost.

Several discussions indicated a desire to move toward a location reference system that would include the use of Global Positioning Satellite (GPS) technology and Geographic Information Systems (GIS). Future planning will require addressing issues such as compatibility between statewide and local systems.

Several linkage elements are in place in the recently implemented Collision Location and Analysis System (CLAS) database. They include state route number, roadway type, roadway qualifier, and accumulated roadway mileage. The vehicle identification number (VIN) and driver license number are currently being collected.

The great majority of public roads are administered and maintained by local governments. The counties and cities of Washington maintain the 75,000 miles of local roads. They receive a portion of the state's gas tax revenues for this purpose. The WSDOT provides counties with collision data in a spreadsheet format that is not configured for easy use by the county to merge the data with their own county data systems.

Crash reports are forwarded to the counties to be geocoded and returned to WSDOT for inclusion in the CLAS crash record. This process is cumbersome and causes delay in the process time for entry of crash data into CLAS. Eventually counties will be using the Collision Data Analysis Tool (CDAT – formerly LASMS) for storing and analyzing collision data. The collision data will be exported from CLAS and imported into CDAT. A subset of crash data will be exported from CDAT and imported into each county's Mobility Information System (Mobility) containing roadway data and other inventories (signs, stripes and markings, traffic volumes, among others) for analysis.

County engineers understand the current processing and system output reporting problems. However, attention must be directed to their data needs with respect to report types, medium used, and the counties ability to access the data needed to properly address any safety problems that may arise.

The WSDOT is devoting resources to this issue in the form of Technology Transfer programs and through their local Traffic Services Branch. The County Road Administration Board also has representation on the Traffic Records Committee (TRC). Until recently the TRC only met when an issue needed to be addressed and they operated in an advisory capacity.

Recommendations

5. Provide local jurisdictions with a tool to access and edit crash records.
 - Complete implementation of the Collision Data Analysis Tool (CDAT – formerly LASMS) with links to CLAS.
6. Develop a plan for the selection, development, and implementation of a statewide GPS and GIS system for locating roadway features and incidents. (Note: The state of Washington is currently involved in the WA-Trans project that is developing a statewide GIS transportation mapping layer.)

Section 1-C: Vehicle Information

Vehicle information includes information on the identification and ownership of vehicles registered in the state. Data should be available regarding vehicle make, model, year of manufacture, body type, and miles traveled in order to produce the information needed to support analysis of vehicle-related factors which may contribute to a state's crash experience. Such analyses would be necessarily restricted to crashes involving in-state registered vehicles only.

This information should also be available for commercial vehicles and carriers which may be registered in other states, but which are licensed to use the public roadways in the state.

Status

The vehicle file is maintained by the Department of Licensing (DOL), and it contains approximately 10,000,000 active records (11,500,000 total vehicles on file).

The scope of information on all vehicles, private and commercial, meets the recommendations of the Advisory. Key data content includes the following: vehicle identification number (VIN), make, year, series and body (model, body type). Series and body are “non-conforming” meaning that entries are not restricted to an edited set of acceptable entries or terms such as the National Crime Information Center (NCIC) standard terms. The vehicle file is not used for analyses using series and body type, but the lack of a conforming set would make it difficult to retrieve or summarize record sets by these parameters if that became a need. Collision information is not recorded in the vehicle file.

Classifications are based on use characteristics, whether the vehicle is powered or not and vehicle weights. Currently the collision reports in the Collision Location and Analysis System (CLAS) and citation files are not populated with the vehicle descriptions acquired from DOL electronically. Hopes for such access were expressed for emerging applications.

Odometer readings are captured only on initial titling and on each transfer of ownership. Multiple checks are used for VIN verifications including check digit verification, and records are checked against the National Insurance Crime Bureau (NICB) database. The State is under contract to begin participation in American Association of Motor Vehicle Administrators' (AAMVA) National Motor Vehicle Title Information System (NMVTIS) in 2005. Initial preparations have been undertaken toward this eventuality.

Commercial vehicles plated in Washington are maintained in the master vehicle file and are not separated in the database, but they are distinguishable. The Prorate/Fuel Tax office maintains data on interstate commercial vehicles registered under the AAMVA International Registration Plan (IRP).

The vehicle file is updated daily including information on temporary registrations. Stolen vehicle information is updated every 10 minutes.

The vehicle file is not linked with other files although it could be if needed.

Salvage information is received from insurance companies, licensed wreckers, and from owners. Records are updated to identify the extent of damage or loss, and the brand is placed on the title. Brands from other states are maintained on such vehicles entering the Washington records.

Law enforcement, individual courts and Administrative Office of the Courts (AOC) have electronic access to the vehicle file. The vehicle file does not reflect suspensions of registrations, but a registration renewal can be blocked for cause. Examples of such holds on renewal arise from financial responsibility requirements, outstanding parking tickets associated with the vehicle and liens arising from failure to pay child support. Safety inspections are not done, but physical VIN inspections and emissions inspections are recorded when required.

The vehicle file has no direct link with the driver file. However, DOL has a new Driver/Plate search program, implemented in October 2003, which enables searching both databases by address, name, date of birth, plate number, and/or VIN. Such searches are restricted at this time to qualified (approved) law enforcement users who must possess a digital certificate of identity. The fee for each user is \$10 per year, and controls are exercised to assure valid identities of the users and authority to access.

Vehicle inquiries can be processed, and summary reports are produced. Principal uses are for analysis of tax collection, informing customers of vehicle recalls, emission testing requirements, and revenue reporting. The existing system will be migrated to a new server-based system in 2005.

The Fatality Analysis and Reporting System (FARS) analyst queries the file regularly for vehicle characteristics information. Queries from individuals and other sources are processed within the constraints of the Driver Privacy Protection Act (DPPA).

The file is primarily used for maintaining the information necessary for the vehicle registration and title functions.

No user had a problem concerning the content or utility of the vehicle file.

Recommendations

7. Ensure DOL is a participant in the Traffic Records Committee (TRC) to facilitate the emerging electronic reporting processes that would benefit from populating their systems with accurate downloaded vehicle descriptions and addresses along with the possibility that such systems may also update addresses in the vehicle file.
8. Establish a conforming set of descriptions of vehicle series and body type entries to match those used in other elements of the traffic records system, particularly the National Crime Information Center (NCIC) standard set.

9. Establish a plan to assure that the new server-based DOL system anticipated in 2005 is coordinated with the needs and the possible inputs from other components of the traffic records system.
10. Coordinate the planning for the new server-based DOL system anticipated in 2005 with the planning for the implementation of the National Motor Vehicle Title Information System (NMVTIS), also in 2005.

Section 1-D: Driver Information

Driver information includes information about the state's population of licensed drivers. It should include: personal identification, driver license number, type of license, license status, driver restrictions, convictions for traffic violations, crash history, driver improvement or control actions, and driver education data.

Driver information should also be maintained to accommodate information obtained through interaction with the National Driver Register (NDR) and the Commercial Driver License Information System (CDLIS) to enable the state to maintain complete driving histories and to prevent drivers from circumventing driver control actions and obtaining multiple licenses.

Status

The driver file is maintained by the Department of Licensing. Information on approximately 6,000,000 drivers supports the functions of license issuance and driver control. The scope of information on drivers meets the recommendations of the Advisory and meets the requirements for participation in the American Association of Motor Vehicle Administrators (AAMVA) applications—the Commercial Driver License Information System (CDLIS) and the Problem Driver Pointer System (PDPS) and SR22/26 processing of insurance cancellations and restorations or carrier replacements.

Records on learner and provisional licenses are maintained. Washington has a graduated license law enacted in July 2001 and has administrative license withdrawals. The file does not record driver education information in the automated file, but it is an element on the driver license application, which is stored on microfiche. Washington's retention cycle is 13 years for original applications and driver photos for two 5-year license cycles plus one year. Minimum retention of adverse infractions and convictions is 5 years and 15 years for the more critical ones (55 years for CDLs).

When a driver applies for a hazmat endorsement, medical and other background information is kept on the application but not entered into the driver history record. A driver's visa status is not recorded when applicable. In fact nothing from another country, including Canada, is reflected in the file nor are past driver histories obtained. The social security number is verified with the Social Security Administration.

Criminal traffic convictions from previous states are included in the driver file when licensing persons who have held licenses in another state. Infractions from previous states are recorded separately for transmission to another state for drivers who subsequently obtain licenses elsewhere.

Convictions from all levels of courts are entered into the driver history. Those received only from the Seattle Municipal Court are used to populate the file through electronic transmissions. The Administrative Office of the Courts (AOC) system is able to send conviction dispositions electronically but does not have some of the information required by Department of Licensing

(DOL). Consequently, it is less labor intensive and faster for DOL to enter the dispositions manually.

DOL is now able to identify alcohol charges, which result in convictions for lesser offenses and such entries are flagged following the offense listing (including the BAC when available). When arrangements are made to exchange information electronically, this type of information must not be lost or it will have a radically negative impact on the driver control processes.

Some courts do not consider all penalties (namely collection of fines without additional penalties) to be convictions and do not want such dispositions recorded as convictions. DOL, however, enters such information into the driver history as convictions. Consequently, some courts withhold such cases from the DOL. Further, it was also stated that the Justice Information System does not incorporate infractions from the Seattle Municipal Court.

Crash information is posted to the driver file without any indication of fault. BAC information is entered on the driver history when available.

The driver file is not operationally linked with the vehicle file. It is accessible electronically for court and enforcement inquiries.

The driver file is interactive with many other files and systems: AAMVA, Washington State Department of Transportation (WSDOT), Department of Revenue, AOC, Seattle Municipal Court, Social and Health Services, and Washington State Patrol to name some of the major ones.

Within the constraints of the state's Driver Privacy Protection Act (DPPA), the driver file serves authorized users.

The file is not primarily used for statistical reports, but statistical and other reports are extracted upon request from the Washington Traffic Safety Commission, Office of Financial Management, Department of Revenue and a variety of non-driver license/control functions. Those include investigations, motor voter registrations, health and special studies, etc.

It normally takes seven to ten working days to obtain a Certified Copy of the Driver Record (CCDR). Improvement in this function may come about with a new imaging system.

Recommendations

11. Establish an agreement between the DOL and the AOC to receive all court dispositions electronically.
12. Look at amending the Washington State statute to permit the DOL to obtain and use to the extent possible driver histories from Canada on persons seeking a driver's license who have held one in Canada and in British Columbia especially.

Section 1-E: Enforcement/Adjudication Information

Information should be available which identifies arrest and conviction activity of the state, including information which tracks a citation from the time of its distribution to an enforcement jurisdiction, through its issuance to an offender, and its disposition by a court. Information should be available to identify the type of violation, location, date and time, the enforcement agency, court of jurisdiction, and final disposition. Similar information for warnings and other motor vehicle incidents that would reflect enforcement activity are also useful for highway safety purposes.

This information is useful in determining level of enforcement activity in the state, accounting and control of citation forms, and monitoring of court activity regarding the disposition of traffic cases.

Status

Washington's Court System is comprised of County District, Municipal and Superior Courts. The state's 39 counties are divided into 31 districts, each of which has at least one court; some smaller counties share a district. Many of the cities and towns have separate municipal courts. Misdemeanor traffic cases and infractions are adjudicated in municipal courts and county district courts. Traffic violations may be infractions or traffic misdemeanors and are sent to either the municipal or to the county district courts depending on the jurisdiction.

The state has a uniform traffic citation, which is utilized by all law enforcement agencies throughout the state. There are statutory provisions which outline specifically the form and format of the citation, including the number of copies and to whom they are provided. This uniform citation with centralized distribution and numbering makes statewide citation tracking possible with a minimum of effort.

Currently, there is no statewide management system containing information about enforcement and adjudication that is useful in evaluating and determining the effectiveness of countermeasures. However, the Administrative Office of the Courts is responsible for a centralized database of adjudication information called the Justice Information System (JIS) which is accessible by court personnel and the Department of Licensing (DOL) and which could be the basis for an effective citation tracking system. One variable that might be problematic is the issuance of summonses for municipal violations, which would need to be converted to substantially similar state statutes for purposes of comparison. Apparently, conversion capability already exists, in that the DOL reports that it receives 12 percent of its citation information from the Seattle Municipal Court. If the JIS were to be used as a citation tracking system, access to query capabilities would be needed by researchers and decision-makers in order to assure full utilization and value of such a system. Additionally, a requirement that all traffic citations be included in the system, regardless of disposition, would be necessary.

At present, although the court system enters disposition data into the JIS, the DOL does not utilize an electronic transmission of data, choosing to data enter the information into the driver

history files manually. However, the information that is received from the Seattle Municipal Court is transferred electronically and automatically updates the driver history files.

All citations are now being hand-written by law enforcement officers in the state of Washington. However, a partially successful pilot project/proof of concept has recently been completed by the Washington State Patrol (WSP) utilizing electronic citation processing. A number of other agencies have expressed an interest and are investigating equipment and systems that will make electronic citations possible. A variety of vendors and systems are being explored. Many of the systems are proprietary and most have licensing fees. The state has also been licensed for the development and use of the Traffic and Criminal System (TraCS), which is an electronic reporting system developed by the Iowa Department of Transportation in concert with the Federal Highway Administration. Since this software was developed utilizing federal funds, it is public domain software and can be provided by the state to law enforcement agencies at no charge. Lead work by the state to provide some sort of public domain software for such a system would reduce costs to law enforcement while minimizing the costs for integration of the data with other state systems.

A number of forms are required to be completed by law enforcement officers in connection with DUI arrests and required to be sent to the DOL via facsimile. Since the license is not confiscated by law enforcement, there is no need to transmit additional information or paperwork by mail. Thus, an opportunity exists for electronic transmission of administrative processing information for DUI arrests from law enforcement to the DOL.

In an effort to facilitate processing of paper citations in the courts, the Washington State Patrol has assigned a trooper to act as a liaison to the court in Pierce County. This trooper is responsible for scheduling officers appearances in court, for ensuring delivery of citations and arrest reports to the courts in a timely manner and for requesting certified copies of driving records from the DOL on behalf of the courts. This assignment has been well received by court personnel and provides for meaningful interaction between the law enforcement agency, the court and the prosecuting attorneys and has acted to speed processing and facilitate improved communication.

In most cases, courts are able to access driver history information directly, however when certified copies are needed, a written request is sent to the DOL, which processes the request and provides the paper copies to the requesting court. The process takes approximately seven to ten working days. Certified copies of driver history abstracts are not currently available electronically.

The State has recently assigned an employee to study the formation of an integrated justice network which would provide a statewide case management system for both traffic and criminal cases by linking the databases of court, law enforcement, DOL, prosecutors, corrections, and probation and parole in an effort to track offenders through the system by integrating the various computer systems used by each of these entities. This network, too, would provide an effective citation tracking system, should the concept be accepted and brought to fruition. Since DOL currently receives and captures post disposition data such as court ordered education completion,

fine and restitution payment, the integrated justice network could provide an optimal platform for a citation tracking system.

A wide range of opportunities exist for time savings in various agencies through development of electronic data capture systems, which can be further used to avoid repetitious data entry by the various end users of the information captured. Besides freeing staff for other functions, a single data entry source reduces opportunity for data entry errors and provides better, faster service to state and local agencies and the citizens they serve.

Recommendations

13. Expand the assignment of court liaison personnel to additional WSP districts to facilitate communication, timely processing of citations and provision of DOL driver history abstracts to court personnel.
14. Design and implement a centralized statewide citation tracking system containing information about a citation from “cradle to grave.” Each record in the system should contain information about all actions pertaining to that citation, from its issuance to an offender, to its disposition by the court, and its placement on the driver history file (as appropriate, e.g., upon a conviction).
15. Provide for information sharing between state and local law enforcement regarding the numerous initiatives for electronic citations (as well as crashes or DUIs). Assign this responsibility to the State’s Traffic Records Committee.
16. Enact legislation to allow the courts to accept electronic citations.
17. Establish data standards and definitions for the electronic transmission and population of the DOL driver history files from the AOC database of citation dispositions.

Section 1-F: Injury Surveillance System Information

With the growing interest in injury control programs within the traffic safety, public health, and enforcement communities, there are a number of local, state, and federal initiatives which drive the development of Injury Surveillance Systems (ISS). These systems typically incorporate pre-hospital (EMS), emergency department (ED), hospital admission/discharge, trauma registry, and long term rehabilitation databases to track injury causes, magnitude, costs, and outcomes. Often, these systems rely upon other components of the traffic records system to provide information on injury mechanisms or events (e.g., traffic crash reports).

This system should allow the documentation of information which tracks magnitude, severity, and types of injuries sustained by persons in motor-vehicle related crashes. Although traffic crashes cause only a portion of the injuries within any population, they often represent one of the more significant causes of injuries in terms of frequency and cost to the community. The ISS should support integration of the ISS data with police reported traffic crashes. The EMS run reports and roadway attributes are the first critical steps in the identification of a community's injury problem, and in turn, the identification of cost-effective countermeasures which can positively impact both the traffic safety and health communities.

The use of these data should be supported through the provision of technical resources to analyze and interpret these data in terms of both the traditional traffic safety data relationships and the specific data relationships unique to the health care community. In turn, the use of the ISS should be integrated into the injury control programs within traffic safety, and other safety-related programs at the state and local levels.

Status

The components of the State of Washington's Injury Surveillance System are separate and distinct divisions within the Washington Department of Health (DOH). These components include the following departments: Emergency Medical Services (EMS), Trauma System, Vital Statistics, Hospital Discharge Data and Injury Prevention.

The Washington Emergency Medical Services and Trauma Act of 1990 legislatively created the EMS and Trauma System in the State of Washington. The Office of Emergency Medical Services and Trauma System consists of four sections that provide leadership, direction, technical support, system assessment and regulatory control: Education, Training and Regional Support; Licensing and Certification; Prevention, Policy and Trauma Fund; Trauma Designation, Registry and Quality Assurance.

Pre-hospital care is provided throughout the State by approximately 4500 EMS providers, with about 40 percent working as private providers and 60 percent being volunteers. Washington certifies Paramedics, EMT-Intermediate and EMT-Basic providers.

Washington has made EMS trauma reporting and data submission mandatory under the provisions of the Trauma Systems data reporting statute WAC 246-976-420. There is not a current statewide EMS data collection system (mechanism) or an established data dictionary. A

draft EMS data dictionary was developed in 2001, in collaboration with the Washington State Association of Fire Chiefs. This draft data dictionary has not been finalized nor adopted for use by the state. EMS data reporting of trauma patient transports is mandated by statute and is collected by the trauma designated hospitals and reported through the State Trauma Registry in a limited capacity and frequency. However, an estimated 20 percent of EMS firms are reporting limited data. EMS data reporting is not supported with State Legislative Funds.

The Washington State Trauma System oversees the designated trauma facilities throughout the state. Hospitals that meet the state designation criteria are designated as a trauma facility for the stabilization and treatment of trauma patients. There are five levels of designation based according to the capacity and comprehensiveness of treatment modalities ranging from Level I Comprehensive Trauma Facility to the Level V Basic Stabilization and Transfer Facility. In addition, there are Designated Pediatric Trauma Facilities throughout the state that have met the specialized criteria for care of the pediatric trauma patient. Designated Trauma Facilities are mandated to report trauma injury data quarterly to the State Trauma Registry System. All designated trauma facilities and the State Trauma Registry System utilize a uniform trauma registry software application that is provided by the State Trauma System. This assists with consistency and uniformity of data collection and reporting between all facilities and the State Registry System.

The hospital discharge data reside within the DOH's Center for Health Statistics. Hospital discharge patient data is electronically collected quarterly utilizing a uniform data set and reporting requirements. There are data files available for data analysis in a Public Data File (de-identified data) and Research Data File (restrictive identified data). The Research Data File has restrictions for acquisition of the data file. Statistical reports are available to the public on the Center for Health Statistics' website.

Vital Statistics' Death Data is maintained in the DOH's Center for Health Statistics. The information and process for requesting death certificate data is available on the Center for Health Statistics' web site.

In addition, the DOH maintains the Injury Prevention and Safety Program that develops and maintains programs designed to reduce injuries. The program has three units: Unintentional Injury, Intentional Injury, and Data Analysts. Safe Kids, Fire Injury Prevention, Suicide Prevention, and Falls Among Older Adults are a few of the programs that this department promotes and supports. The Data Analysts Unit provides ongoing data analysis and research studies related to injury identification, and trends; however, analyses related to traffic safety issues cannot be conducted because of the lack of an EMS data base.

All of these programs and departments are maintained in the DOH and are all involved with mandated injury data collection and analysis; however, these programs and departments are unaware of each other's activities, processes and mandates. Each program and department functions as a separate and distinct entity.

Recommendations

18. Pursue rapid development and implementation of a computerized statewide EMS data collection system to include linkages to other components of the traffic records system.
19. Pursue eligible State and Federal highway traffic safety funding opportunities for a statewide EMS data collection system including Sections 402, 403, and 411, and citation surcharges.
20. Provide information and education related to traffic safety records and fatality data at EMS and Trauma Advisory Committee meetings and stakeholder meetings.
21. Provide technical assistance to users of EMS and trauma data related to the importance, use, and benefits of injury data.
22. Provide the EMS providers and trauma facilities with an avenue for utilization of the data to make a difference in their profession and patient care modalities.
23. Pursue the inclusion of non-designated hospitals that treat or transfer trauma patients into the EMS and Trauma Systems and data collection activities. This will assist in the capture of trauma patients that are not transported to a designated trauma center for care and may be missed due to exclusion from the system. Inclusion of these hospitals will enhance the communication and collaboration for a comprehensive, inclusive Washington State Injury Prevention and Surveillance System, and efficient quality care for the citizens of Washington.
24. Seek opportunities for programs and departments within DOH to share injury surveillance information.

Section 1-G: Other Information

The Traffic Records System should acknowledge the importance of, and incorporate where feasible, other types of information from the state and local level which will be useful in the identification of traffic safety problems and the evaluation of countermeasures. These supporting components may include:

- Geographic Information Systems (GIS) and Global Positioning System (GPS) data.*
- Insurance data (carrier, policy number, expiration date, claims cost).*
- Safety Program Evaluation data.*
- Data specifically required by state or Federal programs (e.g., the Transportation Equity Act for the 21st Century [TEA-21]).*
- Demographic data (data on the state's population including gender, age, rural/urban residence, ethnicity) sufficient to be used in normalizing crash data to the state's general population.*
- Behavioral data (e.g., occupant protection usage).*
- Attitude/perception/knowledge data (e.g., telephone surveys, focus groups).*
- Economic loss data (e.g., medical, insurance cost, workers' compensation, lost productivity).*
- Inventory - Each state should have in place procedures that result in the compilation of an inventory of state and local information sources. This inventory should include information on the source, ownership (contact agency/person), quality, and availability of these data from each information source.*
- Performance data - Performance level data, as part of a traffic records system, are those measures relating to an ongoing or proposed countermeasure that addresses a crash problem. They can include number and types of citations and convictions, number or percent of drivers and occupants using occupant protection, average Blood Alcohol Concentration (BAC) levels, average speeds, percent of injured receiving EMS response, recidivism rates for past offenders/crash-involved drivers, highway countermeasures (e.g., breakaway signs), etc.*
- Cost data - Cost data consist of dollar amounts spent on countermeasure programs, together with the costs of fatalities, injuries, and property damage crashes. The National Highway Traffic Safety Administration (NHTSA), the National Safety Council (NSC), and other national and state agencies have published cost data for use by the states. NHTSA has also made easy-to-use cost modeling software available. In addition, specific local*

costs can be accumulated through injury surveillance systems or other means of collecting treatment costs and outcomes.

- ❑ *ITS data – Intelligent Transportation Systems (ITS) is becoming a major force in the area of traffic mobility and traffic safety. ITS also has an enormous potential for capturing traffic safety data. The first area where ITS can facilitate the capture of traffic safety data concerns documenting crash instances. This can be accomplished through video monitoring systems where data are archived. The archived data can be reviewed to ascertain where a crash report was completed on the date and time of the crash observed. The archived data can also be used to corroborate data contained in the crash report such as date, time, crash location, vehicle type(s), and time of arrival of emergency vehicle(s).*

ITS can also be used to record normalizing data such as vehicle counts (ADT) by vehicle type, by location, time of day, and day of week. Normalizing data essential for data analysis where comparisons are made across time and across geographical locations.

Status

Geographic Information Systems (GIS) and Global Positioning Satellite (GPS) data.

Washington State as part of its Collision Location and Analysis System (CLAS) currently utilizes three separate and distinct geocoding systems. For its municipal roadways, locations are identified according to the primary and closest intersecting streets. On the county roads, county route number and milepost are utilized by the local engineer for location purposes. On the state routes and interstate system, the Washington State Department of Transportation (WSDOT) currently uses state route number and milepost for location purposes. There is a strong desire to apply GPS technology.

Insurance data (carrier, policy number, expiration date, claims cost).

There is some insurance information which is tied to the files within the Department of Licensing, but there is no evidence of application to any safety analyses or studies.

Safety Program Evaluation data.

The Washington Traffic Safety Commission (WTSC) has conducted a significant number of studies related to the effectiveness of various safety interventions over the years. This type of data analysis was integral in their analysis of the effectiveness of the primary restraint enforcement in the state *Seat Belt Use Rate in Washington State* and several other earlier studies.

Data specifically required by state or Federal programs (e.g., the Transportation Equity Act for the 21st Century [TEA-21]).

Throughout the period of the shutdown of crash data it is important to note that the Fatality Analysis and Reporting System (FARS) and SafetyNet reporting requirements continued to be met.

Demographic data (data on the state's population including gender, age, rural/urban residence, ethnicity) sufficient to be used in normalizing crash data to the state's general population.

Different portions of these data sets appear to be available from a variety of both state and federal resources.

Cost data.

Cost/benefit analyses are integral in WSDOT highway improvement projects.

Recommendations

None

SECTION 2: INFORMATION QUALITY

A state's traffic records information should be of an acceptable level of quality to be useful and should be maintained in a form that is readily accessible to users throughout the state. The quality of information in a state's traffic records system is determined by the following characteristics:

- Timeliness
- Consistency
- Completeness
- Accuracy
- Accessibility
- Data integration with other information

The definition of each of these attributes and their relative significance may vary for each information area (crash, roadway, etc.). For example, while a high degree of timeliness may be crucial for entry of actions in a driver history database, it may not be as significant for certain roadway related data. Also, while the various information sources may exist separately, these sources should be easily tied together. This integration can eliminate the need to duplicate data, thus reducing data collection, entry, and storage costs.

2-A: Crash Information Quality

- ❑ *Timeliness – The information should be available within a time frame to be currently meaningful for effective analysis of the state’s crash experience, preferably within 90 days of a crash.*
- ❑ *Consistency – The information should be consistent with nationally accepted and published guidelines and standards, for example:*
 - *Model Minimum Uniform Crash Criteria (MMUCC).*
 - *Manual on Classification of Motor Vehicle Traffic Accidents, 6th Edition, ANSI D16.1-1996.*
 - *Data Element Dictionary for Traffic Records Systems, ANSI D20.1, 1993.*
 - *EMS Data Dictionary (Uniform Pre-Hospital Emergency Medical Services Data Conference).*

The information should be consistent among reporting jurisdictions; i.e., the same reporting threshold should be used by all jurisdictions and the same set of core data elements should be reported by all jurisdictions.

- ❑ *Completeness – The information should be complete in terms of:*
 - *All reportable crashes throughout the state are available for analysis.*
 - *All variables on the individual crash records are completed as appropriate.*
- ❑ *Accuracy – The state should employ quality control methods to ensure accurate and reliable information to describe individual crashes (e.g., feedback to jurisdictions submitting inaccurate reports) and the crash experience in the aggregate (e.g., edit checks in the data entry process).*
- ❑ *Accessibility – The information should be readily and easily accessible to the principal users of these databases containing the crash information for both direct (automated) access and periodic outputs (standard reports) from the system.*
- ❑ *Data Integration – Crash information should be capable of linkage with other information sources and use common identifiers where possible and permitted by law.*

Status

Timeliness

The current statewide crash file does not contain timely data because of the multi-year backlog of crash reports. Completion of the Fatality Analysis and Reporting System (FARS) reports are also delayed due to the frequent return of the reports to the investigating officer for correction and the acquisition of missing data.

Commercial vehicle crash reports are being entered into SafetyNet in a timely manner. Collisions entered into SafetyNet by the WSP Commercial Vehicle Division exceed national averages of 90 days. Washington State is currently at 34 days and is number one in the nation for data timeliness.

Consistency

The crashes reported on the police reports are classified according to first harmful event and the national standards are largely followed.

Completeness

Washington State Department of Transportation (WSDOT) has entered all data for 2002, and is now entering data for 2003. Not all data elements have been captured for crashes that occurred for the years 1997 through 2001. Individual crash reports as submitted by the various police agencies are often incomplete. The most common missing variables include level of injury, work zone data and EMS. Driver reports are often incomplete resulting in 16.5 percent return for correction.

Accuracy

The crash data system provides for a series of edits and quality control steps.

Accessibility

Direct access to the crash data system is available only to those within WSDOT. The WSDOT has provided download of crash information to a limited number of traffic safety partners. Specifically, the Washington Traffic Safety Commission receives a copy of the annual crash file as well as monthly files that are converted to various formats. The County Road Administration Board and county engineers receive EXCEL spreadsheets containing information on crashes on county roads. In addition, approximately 60 cities are currently receiving these spreadsheets for city street crashes, and the Department of Licensing receives a direct data stream that populates driver records.

Data Integration

The crash data system has achieved some degree of data integration with road files and the driver files. There are no established linkages with other systems. However, it is important to note that the system is in its infancy and that the WSDOT has expressed interest in utilizing several technologies which if implemented could significantly and positively impact both data integration and accessibility.

Recommendations

25. Ensure that statewide electronic crash data collection and data transfer will provide for overall quality improvements such as timeliness, completeness, and accuracy as well as eliminate redundant data entry processes.
26. Establish a process for driver crash reports to be submitted electronically.

2-B: Roadway Information Quality

- ❑ *Timeliness – The information should be updated as required to produce valid analysis. This implies that changes on the roadway (e.g., construction, sign improvements) should be available for analysis as soon as the project is completed.*
- ❑ *Consistency – The same data elements should be collected over time and for various classes of roadways.*
- ❑ *Completeness – The information should be complete in terms of the miles of roadway, the trafficway characteristics, the highway structures, traffic volumes, traffic control devices, speeds, signs, etc.*
- ❑ *Accuracy – The state should employ methods for collecting and maintaining roadway data that produces accurate data and should make use of current technologies designed for these purposes.*
- ❑ *Accessibility – The information should be readily and easily accessible to the principal users of these databases containing the roadway information for both direct (automated) access and periodic outputs (standard reports) from the files.*
- ❑ *Data Integration – In order to develop viable traffic safety policies and programs, the roadway information must be linked to other information files through common identifiers such as location reference point. Integration should also be supported between state and local systems.*

Status

Timeliness

Currently, the roadway file most used for highway safety problem identification and programming is contained in the Transportation Information and Planning Support (TRIPS) system. This system includes data on state highway roadway and geometric features, and is updated regularly using contract plans and field reviews.

The timeliness of roadway data contained within the TRIPS system is directly related to how quickly state highway contracts affecting roadway alignment, resurfacing, horizontal/vertical, and other roadway related data can be reviewed, processed and information entered into the TRIPS system. Contract information not requiring a field review for verification can be input into the system rather quickly.

Consistency

The roadway file is for the most part consistent, although WSDOT does make additions from time to time to better meet their customer needs. For example, WSDOT recently changed the way in which they report lane miles, changed the name of Auxillary lanes to Weaving/Speed change lanes and added several more exception codes to better describe how lane miles are added to the state's highway system.

Completeness

The completeness of the roadway data in the TRIPS file is totally dependent upon the WSDOT receiving 100% of the contracts that impact the state's highway system. There are times when a local developer will add a turn pocket into a business and this information will not be captured in a contract submittal to WSDOT. In addition, as streets are renamed, this too will sometimes get overlooked and not forwarded back to WSDOT for roadway updates.

Accuracy

The accuracy of the roadway data in the TRIPS file is within the tolerance level of the users in WSDOT. The major concern is the accuracy of the data in local files and especially with respect to location data. Although the state and counties use a route number milepost location reference system, the identification at the local level is dependent on police identified locations on crashes and county engineer identification for the local road files. WSDOT is working with local governments, in particular, county engineers in addressing these types of issues. Future enhancements to other roadway data systems should address the need for a common location reference system.

Accessibility

Accessibility is currently an issue due to the ongoing problem review and correction process for the recently installed CLAS. The roadway information within WSDOT and the counties has not been impacted. However, users outside WSDOT are not permitted direct access to any WSDOT systems without WSDOT personnel intervention. Access to roadway files for legitimate users outside of WSDOT should be provided.

Data Integration

Data integration of roadway data within WSDOT does not appear to be a problem. But there is a great degree of manual processing of data by personnel involved in developing highway safety initiatives. An informal group of WSDOT employees self-designated as a Highway Safety Issues Group has displayed much innovation and initiative to develop safety predictive models and programs through the data available through TRIPS. It is not clear whether WSDOT district or county and city personnel have the same ability or opportunity for this type initiative.

Recommendations

27. Provide crash information access to all trusted partners of WSDOT data, especially county and city road and enforcement officials.

2-C: Vehicle Information Quality

- ❑ *Timeliness – The information should be updated at least annually.*
- ❑ *Consistency – The same data elements should be collected over time and they should be consistent with the data elements contained in the other components of the traffic records system.*
- ❑ *Completeness – The information should be complete in terms of the vehicle ownership, registration, type, VIN, etc. Information on vehicle miles traveled (VMT) by type or class of vehicle should be available. For commercial vehicles, completeness also involves collection and availability of standard data elements (such as the NGA elements, a set of data developed and recommended by the National Governors' Association for collection of data from crashes involving commercial vehicles).*
- ❑ *Accuracy – The state should employ methods for collecting and maintaining vehicle data that produces accurate data and should make use of current technologies designed for these purposes.*
- ❑ *Accessibility – The information should be readily and easily accessible to the principal users of these databases containing the vehicle information for both direct (automated) access and periodic outputs (standard reports) from the system, within the parameters of confidentiality.*
- ❑ *Data Integration – Vehicle information should be capable of linkage with other information sources and use common identifiers (e.g., VIN, Crash Reports Number, etc.) where possible and permitted by law.*

Status

Timeliness

The file is updated and maintained daily.

Consistency

The file appears to contain the data content recommended by the Advisory and required for support of American Association of Motor Vehicle Administrators applications.

Completeness

The file includes odometer readings only from initial titling and title transfers. Otherwise the data is complete.

Accuracy

Check digit verification and National Insurance Crime Bureau queries are used to enhance the accuracy of vehicle identification numbers (VIN) and validate VIN authenticity. VIN ASSIST is not used for initial input verification, but it is used in the event some problem is encountered with a VIN.

Accessibility

The file information is accessible for authorized users and is available to other users, consistent with state statutes and federal requirements of the Driver Privacy Protection Act.

Data Integration

The file is not linked with the driver file or the crash data file.

Recommendations

None.

2-D: Driver Information Quality

- ❑ *Timeliness – Routine license issuance information should be updated at least weekly. Adverse actions (license suspension, traffic conviction) should be posted daily.*
- ❑ *Consistency – Information maintained on the state's Driver File should be compatible for exchange with other driver-related systems such as the National Driver Register (NDR), the Commercial Driver License Information System (CDLIS), and other applications for interstate exchange of driver records, especially those facilitated via the American Association of Motor Vehicle Administrators Telecommunications Network (AAMVANet).*
- ❑ *Completeness – The information should be complete in terms of data elements (e.g., unique personal identifiers and descriptive data such as name, date of birth, gender) and complete in terms of all prior driving history, especially adverse actions received from other states either while licensed elsewhere or while driving in other states.*
- ❑ *Accuracy – The state should employ methods for collecting and maintaining driver information, which makes use of current technologies (e.g., bar codes, magnetic stripes).*
- ❑ *Accessibility – The information should be readily and easily accessible to the principal users of these databases, including driver licensing personnel, law enforcement officers, the courts, and for general use in highway safety analysis. The information should be available electronically for individual record access, and technology should be available to support automated downloading of summary data sets for analytical purposes, providing safeguards are in place to protect confidentiality within the guidelines established by the state.*
- ❑ *Data Integration – Driver information should be capable of linkage with other information sources and use common identifiers (e.g., driver license number, citation number, crash report number) where possible and permitted by law. Updates of driver information from courts should be accomplished through linkages, preferably electronic, to the driver history data.*

Status

Timeliness

The file is updated and maintained nightly with uploaded conviction data.

Consistency

Data content meets the recommendations of the Advisory.

Completeness

The data contain all of the elements for all drivers and includes convictions from previous states of record. The driver file contains conviction information submitted by the courts. Not all convictions are received from all courts because of the irregular treatment of some conviction as discussed previously in Section 1-D of this report.

Accuracy

Accuracy of the file information appears acceptable.

Accessibility

The file information is available and accessible for authorized users consistent with the requirements of the Driver Privacy Protection Act.

Data Integration

The file links with many other files, and Department of Licensing (DOL) is proactive in taking steps to enhance the procedures for maintaining and using the file.

Recommendations

28. Ensure the DOL is involved in the various traffic records system improvements underway.
29. Work with the courts to assist where possible in resolving the problem of withheld convictions to enable the driver histories to contain accurate and complete information to be used in driver control actions.

Section 2-E: Enforcement/Adjudication Information Quality

- ❑ *Timeliness - Information from an issued citation should be recorded on a statewide citation file as soon as the citation is filed in the court of jurisdiction. Information regarding the disposition of a citation should be entered on the citation file, as well as on the driver history record, immediately after adjudication by the courts.*
- ❑ *Consistency - All jurisdictions should use a uniform traffic citation form, and the information should be uniformly reported throughout all enforcement jurisdictions.*
- ❑ *Completeness - All citations issued should be recorded in a statewide citation file with all variables on the form completed including the violation type; the issuing enforcement agency; violation location; a cross reference to a crash report, if applicable; and BAC, where applicable, etc. All dispositions from all courts should be forwarded for entry on the driver history record.*
- ❑ *Accuracy - The state should employ quality control methods to ensure accurate and reliable information is reported on the citation form and updated on the citation and driver history files.*
- ❑ *Accessibility - The information should be readily and easily accessible to the principal users, particularly:*
 - *driver control personnel -- to take timely license sanction actions when appropriate.*
 - *law enforcement personnel -- for operational analysis and allocation of resources.*
 - *agencies with administrative oversight responsibilities related to the courts under its jurisdiction.*
 - *court officials -- to assess traffic case adjudication workload and activity.*
- ❑ *Data Integration - Citation information should be capable of linkage with other information sources, such as the crash and driver history data, and use common identifiers (e.g., crash report number, driver license number) where possible and permitted by law.*

Status

Timeliness

The Department of Licensing (DOL) has provided electronic access to driver history abstracts to the courts for more timely data availability. Certified documents are still sent via the mail.

Conviction information is received electronically from Seattle Municipal Court and available electronically from the Justice Information System (JIS). While the municipal court dispositions automatically populate driver histories, the JIS information requires additional data entry by DOL personnel. Agreement between the DOL and the Administrative Office of the Courts (AOC) regarding disposition information is needed to facilitate auto-population of the driver history file for all convictions to eliminate the additional data entry at DOL.

Consistency

The legislative mandate to utilize a single form statewide for both infractions and criminal traffic violations provides a high level of consistency.

Completeness

Citations from law enforcement do not include the U.S. Department of Transportation number assigned to commercial carriers, which would help to identify the carrier as well as assure that the driver is identified as a Commercial Driver License holder.

No statewide citation tracking system currently exists; however, the fact that Washington uses a uniform citation and citation numbering system statewide provides a good basis for development and use of a tracking system. The JIS also provides an opportunity to track adjudication on a statewide basis, but only if all adjudication data related to traffic violations is entered in the JIS.

Accuracy

Redundant data entry from handwritten documents by the courts and the DOL provides opportunity for clerical errors, or inability to read illegible handwriting.

Some citations do not indicate crash involvement which hinders matching citation and crash information for research purposes.

Accessibility

Data are available, but not readily in aggregate form and the requester is dependent upon the availability of the AOC to process requests.

Data Integration

Opportunities exist to link data, such as crash information with citation numbers, but full advantage has not been taken. There are a number of excellent and thorough resources available, such as Washington State Patrol's breath alcohol data, which have not been fully utilized because they exist in stand-alone systems. There are several cases where data are sent electronically, but not used electronically to update files; rather the data are re-keyed by data entry operators.

There are a number of initiatives underway in Washington that have the potential to accomplish integration, if they are managed well from the outset and integration is considered in their development stages.

Recommendations

30. Examine the potential to utilize electronic driver history abstracts as certified records for court purposes.
31. Require the DOT carrier number on all citations issued when appropriate.

32. Establish a collaborative effort between the AOC and the DOL to develop data definitions in order to transmit electronic disposition data to populate the driver history file.
33. Assign the TRC the oversight responsibility to support and coordinate local electronic data systems development efforts, and fully integrate such systems as they are developed with the appropriate state systems.

2-F: Injury Surveillance Systems Information Quality

- ❑ *Timeliness - Ideally, the medical data on an injury should be available within an Injury Surveillance System (ISS) in the same time frame as data about the crash is available elsewhere within the traffic records system. However, the medical record on the individual may be incomplete initially because local protocols dictate that the medical record is only placed in the ISS when the patient leaves the health care system (e.g., discharged). Every effort should be made to integrate the ISS record with the crash data as soon as the medical records become available.*
- ❑ *Consistency - The reporting of EMS run data, hospital ED and admission data, trauma registry data, and long term health care data should be consistent with statewide formats which should follow national standards such as ICD-9-CM, as published by the Centers for Disease Control (CDC), the use of Injury Severity Scale standards, etc.*
- ❑ *Completeness - Although a trauma registry based ISS can provide a valuable source of ISS information, it cannot provide a complete picture of the injuries within a community or state. Where possible, the ISS should represent a consensus of all injuries that occur within the community. The ISS should, where feasible, be maintained at a state level but, at a minimum, should be maintained at the local level.*
- ❑ *Accuracy - The state should provide local health care providers with training and support in the accurate coding of injuries and should foster the proper use of the resulting ISS data through education of data users in proper interpretation of these data.*
- ❑ *Accessibility - Recognizing the issues of patient and institutional confidentiality, there should be mechanisms in place to balance the demands for data accessibility from end users and the requirements of state and local privacy rules. At a minimum, the traffic safety and injury control communities should be able to access these data in summarized reports designed to address specific needs, including injury type and severity cost data. Ideally, the system should support the creation of “sanitized” extracts of the ISS data for use in research, problem identification, and program evaluation efforts.*
- ❑ *Data Integration - The true power of the ISS is recognized when the ISS data are integrated with other traffic records system data such as traffic crash, roadway, and crime data, as well as internally between EMS runs, hospital/ED admission data and discharge data. The ISS should be implemented in a fashion that supports this integration in as efficient a manner as possible. Often GIS systems provide the ideal platform for linkage and interpretation of the ISS and traditional traffic records system data. The use of common identifiers whenever possible within the traditional traffic records system and ISS data systems will facilitate this integration effort.*

Status

Timeliness

There is a statewide run report form that was developed in 1996, however, there is not an established system for collection of mandated data documented on these forms. Only a subset of the data on this form is being collected and submitted electronically to the State Trauma Registry System, if the Emergency Medical Services (EMS) run sheet is left with the trauma patient at the Trauma Facility and the trauma registrar enters the data. Trauma registry data are submitted quarterly from designated trauma centers, are entered in local hospital registries and are sent to the Washington State Trauma Registry System for analysis and evaluation of the states trauma system. Trauma Registry Data provides aggregate data reports. Hospital discharge data are reported electronically quarterly to the State Center for Health Statistics. Death Certificate data are also reported to the Center for Health Statistics. Details as to the timeliness of data reporting and availability of closed annual data files were not available during the interview process.

Consistency

EMS run report data are received in a standard format from the designated trauma centers. However, the Hospital Trauma Data Set is reviewed and revised on a biannual basis. This disrupts the consistency of the data trending and analysis in addition to leading to confusion on what the current data element definitions and criteria are for reporting trauma patient care data. This lends also to costly database and software application coding changes that affect the local reporting entities as well as the State Trauma Registry System. Trauma systems data are reported in ICD-9-CM format and contain Injury Surveillance Scores. No rehabilitation data are reported.

Completeness

There is no statewide EMS data collection system in place. There is a subset of EMS trauma data reported to the State Trauma Registry. Trauma patient data are submitted by all the designated trauma facilities and utilize a trauma registry software product that includes data validation and edit capability. Data are not collected from non-designated acute care hospitals on the care, treatment and disposition of the trauma patients; therefore, data for trauma patients that may be seen in these hospitals are not entered in any registry. There is not a Traumatic Brain Injury Registry or Trauma Rehabilitative Care Registry established at this time. Trauma Rehab Data Collection is mandated but not established due to resource issues.

Accuracy

Although there is a legal requirement to use a standard form for all transports, these data are only a trauma subset of the data collected. This subset of EMS data is limited in its use for Quality Improvement activities for the EMS providers and the state. A uniform hospital trauma care data set is utilized by the designated trauma facilities and is submitted to the State Trauma Registry System. The State and local data collection and reporting software have data validation and edit checks for accuracy. This assists in the accuracy of the data entered and submitted to the State Registry System. Information related to the Hospital Discharge Data and Vital Statistics' Death Data quality and completeness verification process was not available at the time of this assessment.

Accessibility

There is no statewide EMS run data available for analysis. There is a limited subset of EMS Trauma data. The Trauma Facility Data, Hospital Discharge Data, and Vital Statistics' Death Data are available in aggregate and public use data file format. Each of these data files is subject to each department's confidentiality and release of information statutes/regulations.

Linkage

The linking of statewide injury data is not an active process or function at this time due to the various issues within the statewide data collection activities, data quality and data accessibilities restraints of each department. A comprehensive data file, an "inclusive" statewide trauma registry, is absent as is statewide EMS run data. Until a comprehensive statewide EMS run reporting system is functioning and interagency departmental barriers are overcome and collaboration of all data owners is achieved, meaningful information will not be generated to assist in injury control and surveillance at the State level.

Recommendations

34. Develop an EMS data set and data dictionary that meets the needs of the EMS providers and the State EMS System.
35. Maintain an EMS data set and data dictionary for a minimum of five years before changes are made to the data elements (additions and/or deletions) for consistency and validity in data analysis and trauma systems evaluation trends.
36. DOH should participate in cooperative efforts including those aimed at linking injury data with other traffic records information.
37. Provide the EMS and Trauma Systems Advisory Committees with data reports and encourage involvement in establishing the EMS Trauma Registry System.

SECTION 3: USES OF A TRAFFIC RECORD SYSTEM

The end purpose of a state's traffic records system is to establish a base of information and data that is available and useful to its customers, including operational personnel, program managers, analysts and researchers, policy makers, and the public. To be of optimal value to its customers, the system should provide for efficient flow of data to its users and be used in support of a wide range of activities. The traffic records system should support the needs of users at all levels of government (state & local), as well as the private sector and the public. The information demands from this wide range of professions and interests is driven by the need for operational data, as well as planning and evaluation information. Examples of uses are provided in the following sections.

3-A: Program Management and Evaluation

Fiscal limitations make it imperative that existing resources (time, staff, funding) be used efficiently. The safety programs at all levels should be accountable for demonstrating the impact of their countermeasures. This places demands on the traffic records system for information to monitor progress and evaluate the impact of countermeasure programs (e.g., monitoring of construction zone crashes during a project, and changes in alcohol-related injuries as a result of an enforcement project).

Status

Traffic safety program management and evaluation is appropriately addressed at the state, county, and city level.

At the state level, the Washington Traffic Safety Commission (WTSC) has the traffic safety program management lead and has a research group of four persons that have a national reputation for traffic safety program evaluation. An annual highway safety plan is developed and approved at the state level and submitted to the National Highway Traffic Safety Administration (NHTSA) for approval and release of funds for state projects and programs. WTSC routinely evaluates major program areas, and the group responds rapidly to evaluating impact of major program and legislation changes, such as the impact of the primary safety belt law.

Program evaluation is an integral activity of WTSC at the program level in the major program areas of alcohol, occupant protection, motorcycle, pedestrian and bicycle safety. In addition, an administrative and/or impact evaluation is required for all WTSC funded safety projects. The primary data source for analysis is Fatality Analysis and Reporting System (FARS) and Collision Location and Analysis System (CLAS).

The Washington State Department of Transportation (WSDOT) is in charge of the State crash data file, CLAS, containing fatal, injury, and property damage crash report data. The WSDOT uses CLAS to locate and correct potentially unsafe road locations.

WSDOT has a research staff of three persons who direct the analysis of CLAS data and make this data available to local jurisdictions. They also are involved heavily in answering queries from the legislature, counties, and the public. The Highway Safety Issues Group within WSDOT performs research using the TRIPS and CLAS files for highway safety program development and evaluation.

Both WTSC and WSDOT supplement their program and countermeasure evaluation capability with contracted research from Washington universities on an as needed basis.

The Washington State Patrol (WSP) also does evaluation of their crash and citation data in their patrol areas and issues an annual report and other data summaries. WSP also has responsibility for motor carrier safety including inspection. SafetyNet issues quarterly reports in this area. Commercial vehicle traffic safety problems have not been fully integrated into the overall traffic safety program evaluation.

The Department of Licensing (DOL) has no research capability to analyze their driver license or vehicle file. Some analysis has been done for DOL by staff of WTSC.

The Department of Health (DOH) is responsible for the Trauma Registry and Emergency Medical Services (EMS) at the state level. Analysis of both trauma and emergency response, for example, is hampered by not having an adequate data system.

Law enforcement and traffic engineers at the county and city level, rely on crash data to identify, correct, and evaluate the impact of their safety programs. Many rely on WSDOT CLAS data that is supplied in monthly feeds. Usually these agencies have parallel or supplemental data files for their analysis purposes. Monthly data feeds go to a number of local agencies in a form that can be complex to use. If infrastructure and capacity issues can be resolved, WSDOT may be able to give cities and counties greater control over the frequency and format of their data feeds.

Linking of major traffic records files is non-existent making it difficult to do studies that use data from more than one file, such as the crash and conviction or driver file.

Recommendations

38. Develop more analysis capability to utilize data in state agencies such as DOL for driver control and improvement, in EMS for analyzing and improving emergency response, and in the court system for citation processing and analysis of the adjudication of traffic offenders.
39. Encourage the development of local analysis capability to analyze crash data for enforcement and traffic engineering purposes, including sharing of experience with analytical software programs for summarizing and analysis of such data.
40. Encourage the move to electronic data transfer using identified standards to benefit users at all levels.

3-B: Research and Program Development

Data-driven planning decisions within the highway and traffic safety communities necessitates identification of trends and baseline measures. In order to identify safety problems and trends, the traffic records system should provide comparable data, over time, that can be easily linked and analyzed, and that data should be made available to a wide range of users (e.g., State Traffic Safety Offices for development of the safety plan, local police agencies for identification of enforcement zones, etc.).

Status

The identification of traffic safety problems and trends relies heavily on fatal and injury data files. Because of the collapse of crash data entry for a period of several years, there was a lack of data for program evaluation and analysis, especially trend analysis. However, the state Fatality Analysis and Reporting System (FARS) had a complete and uninterrupted database of fatal motor vehicle crash data which was available to do trend analysis.

Washington Traffic Safety Commission (WTSC) has developed performance measures for those traffic safety programs in its jurisdiction. The Washington Department of Transportation (WSDOT) has developed performance measures to locate problem road locations and to determine improvement.

Both the WTSC and WSDOT performance measures are generally accepted for use at the county and city level. However, alternate or proxy measures are often used when the commonly used measures are not available.

Because interests are diverse in the many state agencies and local jurisdictions, there is no overall coordination of research activities.

Since research and evaluation reports are given wide distribution, there appears to be no problem of sharing the results with users or persons and groups interested in various safety areas.

WTSC promotes the sharing of program activity and success through statewide meetings. These are annual meetings in the areas of alcohol, safety belts, and pedestrian safety. In addition to the statewide meeting to disseminate traffic safety information WTSC has established about 20 Community Traffic Safety Task Forces. These task forces meet frequently to discuss traffic safety issues and to share information.

WTSC also has a comprehensive web site that provides information in the major program areas and also provides statistical information. In addition, they have information on how to apply for a traffic safety grant.

Linking of the major traffic safety databases is lacking, but for special studies there has been success in linking files for special studies of a limited number of records and time periods. This is a major traffic records problem that is addressed in other sections of this report.

Crash location identification is in a transitional state, with different approaches being used that may in time hamper trend analysis of location problem analysis.

Recommendations

41. Expand the WTSC-sponsored statewide meeting of program area activities to include one specifically focusing on electronic input of traffic records data.

3-C: Policy Development

Informed decision making to support highway and traffic safety policy decisions is only possible with timely, accurate, and accessible information. Traffic records systems data should also be available to promptly respond to legislative and executive requests.

Status

Washington Traffic Safety Commission (WTSC) and Washington State Department of Transportation (WSDOT) are the primary agencies that respond to legislative and executive requests to support traffic safety program policy decisions. In addition, the Washington State Patrol (WSP), Department of Licensing, and Department of Health are involved in requests for information in their areas.

The policy decisions and program priorities are based on a combination of factors: traffic safety data, program improvement opportunities such as legislation or new countermeasure approaches, State perceived priorities, and National Highway Traffic Safety Administration and Federal Highway Administration priorities and funding options.

The traffic safety activity that led to a primary safety belt law and the associated “Click It or Ticket Program” resulting in a 95 percent safety belt use rate is an example of policy and program development involving all the above listed factors.

Annual reports from WTSC and WSP were routinely disseminated to policy makers. The annual crash data report from WSDOT has not been available since 1996, but is expected to be available for calendar year 2003 in 2004.

Recommendations

None.

3-D: Private Sector and Public Requests

The traffic records system, through a combination of information sources, technical staff, and public records access policies, should be capable of producing scheduled and ad hoc reports. The media, advocacy groups, safety organizations, the general public, and internal (state and local) users have demands for regular reporting as well as for unforeseen ad hoc reports and access to data extracts. There should be a mechanism in place for establishing what data should be available to public and private sector users, within the laws protecting individual privacy and proprietary information.

Status

Requests for traffic safety information are handled by three major groups. Washington Traffic Safety Commission handles requests for information in the major program areas such as drunk driving, occupant protection, motorcycle, and pedestrian safety. Washington State Department of Transportation requests focus more on crash location, with Washington State Patrol furnishing data on the activities in their patrol jurisdictions.

Confidentiality is a major concern and person identifiers are removed when the request is for case level data.

There is no apparent problem in handling private and public requests that are related to data that is available. Further there is no jurisdictional problem that has surfaced in this area.

Recommendations

None.

SECTION 4: MANAGEMENT INITIATIVES

The development and management of safety programs should be a systematic process with the goal of reducing the number and severity of traffic crashes. This process should ensure that all opportunities to improve highway safety are identified, considered, and implemented. All implemented highway safety activities should be evaluated. The evaluation results should be used to improve and facilitate the selection and implementation of the most efficient and effective highway safety strategies and programs. This process can be achieved through the following initiatives.

4-A: Coordination

There should be a statewide traffic records coordinating committee (STRCC) with representation of the interests from all levels of public and private sector traffic safety stakeholders, as well as the wide range of disciplines that have need for traffic safety information. This committee should be formed within state policy and legal guidelines and institutionalized and empowered with the responsibility (through formal agreements) to recommend policy on traffic records. The state should provide a mechanism to ensure support for the administration and continuance of the coordinating committee, as well as technical guidelines. The STRCC should be responsible for adopting requirements for file structure and data integration, assessing capabilities and resources, establishing goals for improving the traffic records system, evaluating the system, developing cooperation and support from stakeholders, and ensuring that high quality and timely data will be available for all users.

Status

While the state traffic records coordinating committee is not a new entity in Washington, it has not been actively and consistently involved in the state's traffic records development. It has a broad-based constituency and a high level of commitment on the part of its members. However, questions regarding the purpose of the Traffic Records Committee (TRC) evoked a variety of responses, including development of performance measures and data collection for Federal reporting mandates. Many of its members view the group's purpose solely as information exchange, which is merely a single component of its overall mission.

There seems to be a commitment to planning, but a lack of focus on outcomes and little emphasis on the committee's ability to operate as a coalition seeking legislative change, funding support, and most importantly, interoperability, consistency, uniformity and economies of scale. The Traffic Records Strategic Plan, which was developed in 1998, is broad brush with few measurable and concrete goals and objectives.

The current TRC does not have a full time chairperson to provide the needed direction. Additionally, the membership list is long. As a working committee and planning entity, a smaller working group might be more successful at reaching consensus.

The committee can perform a number of valuable functions in a state with a myriad of projects in progress. A variety of technological improvements and projects are evolving in almost every aspect of the traffic records community. The TRC can add value to the oversight of such projects in the following ways:

- Providing common objectives and a general direction for the generation and collection of data.
- Defining the need for legislative change, as a result of projects, and providing a unified approach to requesting legislative change.
- Seeking grants and other funding mechanisms.

- Providing a forum for information-sharing and data-sharing, as well as presentation of lessons learned and debriefing of both successful and unsuccessful projects.
- Providing a single source of information regarding statewide traffic record initiatives.
- Providing a forum for information regarding the use of traffic records data by other entities, and helping to develop uniform data elements and data definitions that improve the capability and ease with which integration can be accomplished as systems are built and linked.

Recommendations

42. Restructure the TRC to include an executive level (agency and department heads) and a technical support level (users, managers, and custodians of the traffic records system components.)
43. Redefine the vision and mission of the TRC.
44. Appoint an enthusiastic, committed champion to head the TRC, who has both the time and the energy to develop collaborative relationships across what is now a very progressive group of traffic records professionals within the state, but who are currently operating independently.
45. Charge the TRC with oversight of the development of e-data initiatives, such as electronic citations, crashes and Driving Under the Influence processing.
46. Charge the TRC with the development of a catalog of data systems, platforms and operating systems, including data elements and a data dictionary, to be used by entities that are planning new system development.
47. Involve members of the TRC in any redesign of the state's crash report form, to assure that as many needs as possible may be met by any additions or deletions to the crash report form.
48. Assure inclusion of all stakeholders within the TRC membership such as local law enforcement and prosecutors, and strike a balance between IT and Program specialists, to assure that the programs' needs are driving the selection of the technological solutions, rather than the solutions setting the course for the programs.

4-B: Strategic Planning

The traffic records system should be operated in a fashion that supports the traffic safety planning process. The planning process should be driven by a traffic records system strategic plan which helps state and local data owners support the overall safety program needs within the state. This plan should address such activities as:

- A continuous review and assessment of the application of new technology in all phases of its data operations: collection, processing, retrieval, and analyses. The strategic plan should address the adoption and integration of new technology, as such change is feasible and desirable in improving the traffic records system.*
- Promotion of local data systems that are responsive to the needs of local stakeholders.*
- Identification and promotion of integration among state and local data systems to eliminate duplication of data and to help assure current, reliable information.*
- Data integration to provide linked data between components of the traffic records system (e.g., Crash Outcome Data Evaluation System [CODES]).*
- Coordination of the federal systems (e.g., FARS, NDR, CDLIS) with the state records systems.*
- Recognition and incorporation, where feasible, of uniform data elements and definitions and design standards in accordance with national standards and guidelines (e.g., MMUCC, ANSI-D20.1, ANSI-D16.1, NGA, EMS Data Dictionary, etc.).*
- Changing state and federal requirements.*
- Capture of program baseline, performance, and evaluation data in response to changing safety program initiatives.*
- Establishment and updating of countermeasure impacts (e.g., crash reduction factors used in project selection and evaluation).*

The strategic plan should be endorsed by, and continually updated through the activities of, the statewide traffic records coordinating committee.

Status

The State intends to conduct a Strategic Planning process for highway safety information that would be the basis for a vision and direction of the traffic records systems future design, development, and implementation of technological improvements and innovation to traffic records systems in Washington. This plan will build on the findings of this assessment.

The Washington Traffic Safety Commission (WTSC) directs the highway safety initiatives for the citizens of Washington. The WTSC is comprised of nine members that represent the

highway safety community in the State and is chaired by the Governor. The Governor's Office of Highway Safety serves as staff to the Commission.

The Office of Highway Safety also utilizes a Traffic Records Committee for advice on traffic records activities. The committee currently has thirty-five members representing state and local highway safety stakeholders.

The Strategic Plan for Traffic Records System should utilize the existing structures that direct and plan traffic records actions. A supervising director of the strategic plan should be versed in traffic records systems design, development, and use for highway safety problem identification and programming.

For the Strategic Plan to be successful endorsement of its conduct and findings is important. Therefore support of the WTSC or high level alternates of Commission members and a well-versed Traffic Records Committee working group cannot be understated.

Recommendations

49. Obtain a statement of support for creating a new Traffic Records System Strategic Plan from the WTSC. A Memorandum of Understanding should be drafted and presented to the Commission for endorsement by each member.
50. Charge the TRC with the development of the Traffic Records System Strategic Plan and future implementation of the Plan's recommendations.
 - Charge the TRC with the responsibility for strategic planning for the highway safety information needs of all stakeholders with a vested interest in Washington's highway safety mission.

4-C: Training and Staff Capabilities

Throughout the data gathering, interpretation, and dissemination process, there is a need for training and technical support. A training needs analysis should be conducted for those highway safety professionals involved in program development, management, and evaluation. Training should be provided to fulfill the needs identified in this analysis. There should also be an ongoing outreach program for users of traffic safety program information to assure that all users are aware of what is available and how to use the information to fulfill their needs.

Status

The State has not completed a training needs assessment that evaluates needs of the Washington Traffic Safety Commission (WTSC) and its multi-agency partners. The WTSC staff possesses strong analytical skills for traffic records analysis and report development. However, there is a critical need for a multi-agency needs and knowledge base assessment to be developed and utilized by the WTSC to provide technical support and mentorship to their partners. This will provide the foundation for building a cooperative partnership with mutual gains in data quality, quantity and access that will lead to a mature and well functioning traffic safety and injury prevention network in Washington.

There is a need for each participating agency to understand each other's operations, processes, and data needs.

Especially important is the need to provide continuing training and education to law enforcement on data input and recognition and consistent documentation of injuries on their collision reports. In addition, education of law enforcement and EMS representatives is needed for more accurate documentation of their respective activities at the crash scene.

Recommendations

51. Charge the WTSC with conducting an analysis of traffic safety training needs, and developing and implementing a training plan.
52. Develop and implement an orientation process and resource manual that includes each partner's agency function and responsibilities that can be utilized by existing participants in addition to new and potential partners.

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- So You Want to Link Your State Data. National Highway Traffic Safety Administration, DOT HS 808 426, July 1996.
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Study Report of Methods To Improve the Application of State Traffic Records Systems -- Phase 1. Transportation Research Board; National Highway Traffic Safety Administration, DOT-HS-807-198, September 1987.

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GLOSSARY OF TERMS AND ACRONYMS

AADT	Average Annual Daily Traffic
AAMVNet	American Association of Motor Vehicle Administrators Telecommunications Network
ADT	Average Daily Traffic
ANSI	American National Standards Institute
ANSI D16.1	Manual on Classification of Motor Vehicle Traffic Accidents
ANSI D20.1	Data Element Dictionary for Traffic Record Systems
BAC	Blood Alcohol Concentration
CCSRs	Comprehensive Computerized Safety Record-keeping System
CDC	Centers for Disease Control
CDLIS	Commercial Driver License Information System
CLAS	Collision Location and Analysis System
CODES	Crash Outcome Data Evaluation System
ED	Emergency Department
EMS	Emergency Medical Services
FARS	Fatality Analysis Reporting System
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
GIS	Geographic Information Systems
GPS	Global Positioning System
ICD-9-CM	International Classification of Diseases, Volume 9, Clinical Modification
ISS	Injury Surveillance Systems
MMUCC	Model Minimum Uniform Crash Criteria
NDR	National Driver Register
NGA	National Governors' Association
NHTSA	National Highway Traffic Safety Administration
NSC	National Safety Council
STRCC	Statewide Traffic Records Coordinating Committee
TEA-21	Transportation Equity Act for the 21 st Century
TRB	Transportation Research Board
VIN	Vehicle Identification Number
VMT	Vehicle Miles Traveled

TEAM CREDENTIALS

ALFRED CRANCER JR.

Data Analysis Consultant
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As a Data Analysis Consultant, Mr. Crancer is under contract with NHTSA as a data consultant in traffic safety for the fourteen western states in NHTSA Regions 8-10. He is also involved as an independent consultant in traffic records and data analysis. Also, Mr. Crancer is involved in the development of youth and violence prevention programs.

Mr. Crancer has over thirty-five years experience as a researcher and developer of innovative traffic safety programs. He has worked in such organizations as NHTSA, the Central Intelligence Agency, U.S. Dept. of Agriculture, Air Force Office of Scientific Research, Aerospace Industries Association, Singer Link Inc., and the Washington State Dept. of Motor Vehicles.

Retired from the position of Regional Program Manager, National Highway Traffic Safety Administration Region IX, San Francisco. Special areas of expertise were the development and evaluation of traffic safety records and programs.

Formerly Director, Office of Demonstration & Evaluation, NHTSA Headquarters in Washington, D.C.

In addition, Mr. Crancer has published numerous research articles that appeared in such journals as Science, Journal of the American Medical Association, American Journal of Psychiatry, Traffic Quarterly, and California Journal of Traffic Safety Education.

Mr. Crancer was on the faculty of the D.O.T. Transportation Safety Institute where he developed and taught more than 20 courses over a 10 year period.

He was awarded the U.S. Dept. of Transportation Silver Medal for his contribution in developing and teaching traffic safety programs at the Institute.

Mr. Crancer has a M.A. from American University in Mathematical Statistics and B.Sc. in Economics from Arkansas State University.

JERRY FRIEDMAN

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Delmar, NY 12054
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Work Experience:

Mr. Friedman has had twenty years experience in the field of Traffic Records for the Department of Motor Vehicles and the Governors Traffic Safety Committee Office (the 402 Highway Safety funds distributing agency) in New York State. The last eight years were spent as the Coordinator for Safety Management Systems in New York State.

In this position Mr. Friedman had responsibility for the creation, development, analysis, coordination and implementation of the New York State **Safety Management Systems** (S.M.S.) program at state agency, county and local levels. The entire process of Traffic Records improvements throughout the state was developed under his purview as chair of the traffic records sub-committee. The process undertaken ranged from interviews of stakeholders to assess needs through development of criteria for the bidding procedures and oversight of activities undertaken while under contract. At the same time, insure that data collected under disparate systems was in fact compatible. He was also required to file an annual report entitled *New York State's Traffic Records Strategic Plan* with the National Highway Traffic Safety Administration. Some of the major initiatives undertaken within the S.M.S. during his administrative period within New York State are:

- **CODES**- New York was one of the first states to attempt to tie it's medical records housed in the Department of Health (D.O.H.) with crash data housed in the Department of Motor Vehicles (D.M.V.).
- **CARDS**- New York State Division of Criminal Justice Services (D.C.J.S.) developed this first in the nation computerized crash analysis reporting data system for local police agencies. The system was designed to create a mirror image of the DMV crash report on a lap top computer, facilitate transmission and significantly reduce errors in the DMV statistical data base.
- **TRACS**- New York State Police (N.Y.S.P.) has developed, tested and distributed an accident, ticket, and crime reporting system utilizing the federally funded Iowa tracking mechanism. This system allows the police officer to utilize a laptop computer to report crash data, issue citations and download data to the DMV for inclusion into the appropriate databases. The system includes a geo-based locator program to accurately identify crash information. It will be expanded to include criminal reporting and is currently in limited distribution in the state.
- **TSLED**- The traffic safety law enforcement and disposition file, a uniform traffic ticket tracking mechanism was rewritten to accommodate electronic reporting from the moment the citation was issued through final disposition. This has significantly impacted the timeliness, and accuracy of information. A secondary benefit has been the significant reduction in tickets rejected due to technical errors
- **Accident Systems Program**- The entire accident reporting system at the DMV was re-engineered to facilitate receiving and encoding electronic transmission of data from the above projects. A subprogram of this system has been;

- **ALIS**- A geo-coded data base platform constructed to integrate several existing computerized location functions within local state and municipal jurisdictions. While the crash application is housed within DMV the Governor's Office for Technology (OFT) coordinates the various applications within the system. One of the major contributors to the system is New York State Department of Transportation (D.O.T.) with its roadway file.
- **SIMS**- The acronym for the DOT automated roadways files including mileage inventory, roadway hazard designation and identification of high accident locations. It is tied to the DMV files as well as the other geo-coded systems within the (OFT).

Prior to this time he served as the Traffic Records specialist within the Governor's Traffic Safety Committee staff. He had the responsibility to review, monitor and report on the programs funded with federal highway safety funds throughout New York State. Included within these categories were:

- The original development of T-SLED as the first uniform traffic ticket throughout New York State, and
- The CLASS program that served as our first "link-node" crash location system.

During the early 1980's he was assigned to the Governor's Alcohol and Highway Safety Task Force as the Traffic Records Specialist. It was his responsibility to create a inter-agency reporting mechanism which would provide crash, roadway, treatment, health, arrest and conviction information from various state agencies to fifty seven ongoing local STOP-DWI (Special Traffic Options Program -DWI) which would assist in the development of countermeasures and insure continued funding.

Related Activities

Mr. Friedman has authored many studies on traffic records related issues, and chaired a study of recidivist drinking drivers.

He is a founding member of ATSIP, and prior to that a member of the National Safety Council Traffic Records Committee. He has represented New York at several International Traffic Records Forums, often moderating and participating in several panels.

LANGSTON A. (LANG) SPELL

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Independent Consultant

Professional Experience

Mr. Spell entered his professional career in traffic records systems and data exchange 45 years ago. He is nationally recognized for his work in development of traffic records systems, and especially interchange (NDR and CDL) of information amongst various users and the development and promulgation of data standards in information processing.

He developed the AAMVA Violations Exchange Code or “ANSI” code while employed with AAMVA and later served as subcommittee chairman for the ANSI D-20 Standard, A States Model Motorist Data Base, while employed with the National Highway Traffic Safety Administration. He was involved in the design and developmental efforts for the Commercial Driver Licensing Information System (CDLIS) and its AAMVAnet environment.

History

1992 – present	Consultant
1977 – 1992	Senior Traffic Records Analyst National ConServ, Inc. (but 1980 to 1983: Independent Consultant)
1974 – 1977	Vice President GENASYS (Systems Division) (now Keane, Inc.)
1968 – 1974	Chief, Information Systems, NHTSA, US Department of Transportation
1966 – 1968	Director of Data Systems for the <u>AAMVA</u>
1958 – 1966	Staff Specialist in MVR for Retail Credit Co. (now Equifax) Atlanta, GA

Memberships in Professional Associations

- Traffic Records Committee, Transportation Research Board
- American Nation Standards Institute, D-16, D-20, and X3L8 Committees

- Executive Board, Traffic Records Committee, National Safety Council
- Society of Automotive Engineers Committee on Standardization of Vehicle Identification Numbers

Education

Boston University S.T.B., 1956
Duke University A.B., 1953

JOAN VECCHI

Operations Director, Driver Control Section
Motor Vehicle Business Group, Colorado Department of Revenue
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Professional Experience

Joan Vecchi is currently the Operations Director of the Driver Control Section of the State Motor Vehicle Group in Colorado. Driver Control is responsible for compiling driving records and taking appropriate restraints against driver licenses or privileges. She has held the position for the last four years. In that capacity, she acts as the Custodian of Traffic Records for the State of Colorado. She is responsible for management of a section of 131 employees, including five investigative staff members whose job is to investigate driver license and title fraud. Her duties include assuring compliance with the provisions of the Driver Privacy Protection Act, development of a legislative agenda for the Section, and review of and testimony regarding proposed legislation related to drivers and vehicles.

Her prior experience includes twelve years as a Police Officer/Sergeant in Denver. During that period, Joan worked as a technician responsible for Department policy and procedures and design of forms and citations. In this capacity, she acted as liaison between the Department and the County Court to assure that citations met the needs of both entities. Joan left the City of Denver to work at the Colorado Department of Revenue in the Office of Program Analysis as a policy/budget analyst. In that capacity, Joan was responsible for developing budget requests and justifications, analyzing the efficiency and effectiveness of various state programs, auditing the performance of existing programs, and implementing new programs. Later, she was assigned to the Liquor Enforcement Division as Enforcement Manager, where she worked with the industry and law enforcement to assure a fair regulatory system while targeting underage consumption and over-service of alcohol. During her tenure with Liquor Enforcement, Joan was acting Director of the Division for a period of eleven months and implemented the tobacco enforcement program in Colorado.

Currently, Ms. Vecchi is working toward a fully electronic system of traffic record information transmission in partnership with local law enforcement, the Departments of Transportation and Public Safety and the state Judicial Department. She has been variously assigned, in addition to her regular duties, as acting director of the Driver License Section and acting director of the Titles and Registrations Section of the Motor Vehicle Business Group. She was co-chair of the Identity Fraud Working Group, which crafted legislation that allowed the use of facial recognition technology on applicants for driver licenses or identification cards. Currently, Colorado has the largest facial recognition database in the United States. Investigations using facial recognition prevent issuance of more than 100 fraudulent documents each year. Ms. Vecchi is also responsible for Colorado's Motorist Insurance Database, which matches all registered vehicles and licensed drivers to insurance policy information.

Currently, Joan is involved with a broad-based group study of aging drivers, in an effort to develop a program that addresses the needs of the older driver population, thereby improving highway safety for all the state's citizens. She is also a member of the Colorado state traffic records advisory committee (STRAC).

Education

Bachelor of Science, Majors in Law Enforcement and Psychology	1977
Master of Arts, Management emphasis in Human Relations and Organizational Behavior	1984
Numerous professional training courses in law enforcement and management subjects	

CAROL WRIGHT

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Professional Experience

2000 – present Texas Department of Health Austin, Texas
Injury Epidemiology & Surveillance

Program Administrator II EMS/Trauma Registry

- Responsible for Grant resource and oversight
- Liaison to legislative staff advocacy groups
- Supervise registry staff
- Program Budget, schedules, travel coordination
- Development of new EMS/Trauma Registry System (TRAC-IT)
Review RFP, JAD/JRP collaboration
- Data schema analysis
- Development of EMS & Trauma Data Dictionaries
- Staff stakeholder and town hall meetings
- Facilitate EMS provider & trauma registry workgroup
- Staff support and liaison for Governor's EMS & Trauma Advisory Committee
- Resource for EMS/Trauma development and registry issues
- Clinical and technical resource for EMS/Trauma Systems Development

1997 – 2000 Texas Department of Health Austin, Texas
Bureau of Emergency Management

Trauma Designation Specialist

- Survey Trauma Facilities Level 1 – Level 4
- Reviewed designation applications & forward recommendations to Bureau Chief
- Developed revised designation applications
- Developed Quality Improvement Process
- Developed Pediatric Categorization applications and categorization process
- Trained surveyors
- Staff support for Governors Advisory Council
- Liaison with Center For Rural Initiatives and EMS/Trauma Registry
- Presenter at Texas EMS Conference 1998 & 1999
- Developed Grant RFP, grant quarterly & annual reports

1995 - 1997 Memorial Hospital of Gonzales Gonzales Texas

Trauma Coordinator/Nurse Educator/ ED Director

- Developed Trauma Program
- Developed Trauma Quality Improvement Program
- Developed Trauma Designation & ED policies and procedures

- ❑ Developed and taught orientation, advanced cardiac life support, trauma nurse core course prep, emergency nurse pediatric prep, oncology
- ❑ Developed and taught EKG course, dosage calculation course, arterial blood gas course
- ❑ Facilitated trauma administrative meetings
- ❑ Supervised staff
- ❑ Developed and presented statistical reports to hospital Medical Executive Committee and Hospital Board of Directors
- ❑ Resource and mentorship of Area “P” trauma coordinators

1994 – 1995 Smithville Regional Hospital Smithville, Texas

Director Quality improvement/ Infection Control/ E.D.

- ❑ Supervised Staff
- ❑ Budget/Staffing/Staff Training
- ❑ Developed and presented statistical reports to hospital Medical Executive Committee and Hospital Board of Directors
- ❑ Developed Quality Improvement Program for hospital and three rural clinics
- ❑ Developed Infection Control Program for hospital and three rural clinics

1988 – 1994 Medical Center Hospital Odessa Odessa, Texas

Assistant DON Skilled Nursing Facility/Patient Care Coordinator/ED nurse/ Charge nurse/ Critical Care nurse

- ❑ Started employment as an LVN and obtained RN
- ❑ Supervised staff
- ❑ Budget
- ❑ Trained nurses
- ❑ Developed and presented statistical reports
- ❑ Liaison to Administrator
- ❑ Facilitated executive meetings
- ❑ Critical and emergency patient care (ICU/CCU/ED)
- ❑ Oncology nursing

Education

Graduate School Nursing/Health Administration currently enrolled

Odessa College Nursing Degree –ADN Registered Nurse 1989

Certified Emergency Nurse

Professional Affiliations

- ❑ Texas Trauma Coordinators Forum
- ❑ Emergency Nurses Association
- ❑ National Trauma Society
- ❑ Emergency Pediatric Nurse Association

JOHN J. ZOGBY, PRESIDENT

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Summary Of Experience

Mr. Zogby has over 40 years experience in highway safety engineering and management and motor vehicle and driver licensing administration.

Mr. Zogby's transportation career began in the Bureau of Traffic Engineering in the Pennsylvania Department of Highways, where he was responsible for statewide application of highway signs and markings. He was instrumental in developing the State's first automated accident record system in 1966. In the late 1960's, he helped initiate and was project director for the statewide safety improvement program and the State's in-depth accident investigation function.

Mr. Zogby worked in the private sector in traffic safety research for several years before returning to public service as the Director of the Bureau of Accident Analysis in the Pennsylvania Department of Transportation (PennDOT). He was appointed Deputy Secretary of Transportation for Safety Administration in February of 1979, a position he held for 13 years, until his retirement from public service in December 1991.

Since his retirement from State government, Mr. Zogby has been engaged as a consultant on management and policy issues for federal, State and local government agencies in the area of transportation safety and motor vehicle/driver licensing services.

Professional and Business Experience

Recently Completed contracts:

- Subcontract with iTRANS Consulting Inc. on NCHRP project 17-18 (05), Integrated Management Process to Reduce Highway Injuries and Fatalities Statewide for the Transportation Research Board.
- Contract with the National Academy of Sciences (NAS) to provide AASHTO Strategic Highway Safety Plan - Case Studies (17-18(06)) for the Transportation Research Board.
- Subcontractor with ISG, a systems integration consulting company, conducting a reengineering contract with the Pennsylvania Department of Transportation in the area of motor vehicle processes.
- Subcontractor with the Pennsylvania State University to research the impact of an education provision in a State law governing novice drivers.

- Conducted a three-week course on safety management for the Ministry of Communications in the Kingdom of Saudi Arabia.
- Subcontractor with a Moroccan Engineering firm to develop a national highway safety plan for the Country of Morocco.
- Completed a study for the State of Mississippi, Department of Public Safety, to develop a Strategic Plan for Highway Safety Information.
- Contracted by the Federal Highway Administration, Office of Motor Carrier Safety, to help in the final implementation phase of the Commercial Driver License (CDL) program.
- Consulted with several States in assessing their Traffic Records capabilities to address highway safety program management needs. In addition, completed Traffic Records Assessments for three Indian Nations in Arizona.
- Project director and principal instructor for a Federal Highway Administration (FHWA) contract to develop, implement, and instruct a training program for the Highway Safety Management System.

Professional Societies And National Committees

- Member Institute of Transportation Engineers.
- Member of the Transportation Research Board (TRB) Committee on Safety Management.
- Chairs a TRB task force on Safety Management status.
- Member of the National Safety Council's Association of Transportation Safety Information Professionals.
- Past Chair of the National Safety Council's Traffic Records Committee.
- Past President of Region 1 of the American Association of Motor Vehicle Administrators.
- Chaired the Governing Board of the International Registration Plan.
- Chaired a subcommittee of the NGA Working Group on State Motor Carrier Taxation and Regulation.
- Completed a six-year tenure as Chair of the TRB committee on Planning and Administration for Transportation Safety.

Community

- Chairman, Duncannon Borough Planning Commission
- Executive Board, Perry County Economic Development Corporation
- President, Duncannon Area Revitalization, Inc.
- Board Member, Tri-County Regional Planning Commission
- Task Force Member, Cumberland/Perry Counties Safety & Congestion Management Study
- Pastoral Associate, St. Bernadette Church, Duncannon, PA

Education

B.S., Economics, Villanova University

MPA, Penn State University