



# **COMMONWEALTH OF KENTUCKY**

## **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**

Following are the major recommendations drawn from the main body of the report:

### **MAJOR RECOMMENDATIONS**

#### **Crash Data**

- Push aggressively for full implementation of Electronic Collision Reporting and Analysis for Safer Highways (ECRASH) by all law enforcement agencies in the Commonwealth.
- Require diagrams on all reportable crashes.
- Develop a simple location verification method for ECRASH.

#### **Emergency Medical Services (EMS) Data**

- Pursue rapid development and implementation of a computerized statewide EMS data collection system.
- Pursue eligible State and Federal highway traffic safety funding opportunities including Sections 402, 403, and 411, and citation surcharges.
- Forge partnerships with healthcare and highway safety constituents to coordinate and implement a statewide Injury Surveillance System. Include appropriate stakeholders specifically Kentucky Board of Emergency Medical Services in all deliberations concerning data integration and linkages.

#### **Citation Data**

- Pursue negotiations with the Administrative Office of the Courts (AOC) to create the capability to electronically update the new Record Management System with conviction information.
- Design and implement a statewide automated citation/disposition file to include information which will track citations from printing to disposition. The file should include at a minimum the citation number, date, time, location, type of charge, violator, vehicle identifier, enforcement agency, adjudicating court, date of adjudication, and adjudicated action. The current AOC system would possibly be the logical backbone of this system, but AOC's voluntary isolation from other highway safety information stakeholders may rule out their involvement. Should the AOC system be ruled out, determine possibility of transfer of AOC funds to finance a useable system.
- Make all data from the recommended citation/disposition file available to all legitimate users where permissible by law. This can be accomplished through ad hoc reports, opening the file to users, or providing sanitized downloads.

## **Driver Data**

- Begin the process of translating and entering the conviction histories of prior States of record in a manner consistent with the Commercial Driver License Information System processes using the AAMVAnet Coding Dictionary.

## **Management and Coordination**

- Coordinate plans for upgrading the driver file with those components of a comprehensive statewide traffic records system, especially those with electronic crash and citation data collection systems.
- Elevate the Highway Safety Branch into an Office of Highway Safety reporting directly to the Governor's Representative for Highway Safety. Empower that office to select, implement, manage, and evaluate those highway safety programs, i.e., NHTSA 402 programs, under its authority .
- Restructure coordination of traffic records in the Commonwealth. Since management support is necessary, form two levels of coordination: an executive level that has authority and/or support to make changes (possibly the Governor's Coalition for Highway Safety), and a Traffic Records Committee (TRC) made up of managers, users, and custodians of the Commonwealth's various traffic records systems. The TRC could further be organized into ad hoc subcommittees to address current high priority functions and make recommendations for system development and upgrades.
- Institutionalize the TRC by requiring that appointments be made by the executive level.
- Create a high-level statewide highway safety oversight and coordinating committee for all of Kentucky's safety programming. The existing Governor's Coalition for Highway Safety may serve this purpose.
- Charge the Highway Safety Branch in the Kentucky State Police with staff responsibilities pertaining to the activities of the statewide highway safety oversight and coordinating committee.
- Create a TRC that takes its direction from the statewide safety committee.
- Charge the TRC with the responsibility for strategic planning for the highway safety information needs of all stakeholders with a vested interest in Kentucky's highway safety mission.

## **ACKNOWLEDGMENTS**

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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, and Joyce Jones, National Highway Traffic Safety Administration (NHTSA) for giving a national perspective to the assessment process and its goals.

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, 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 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**

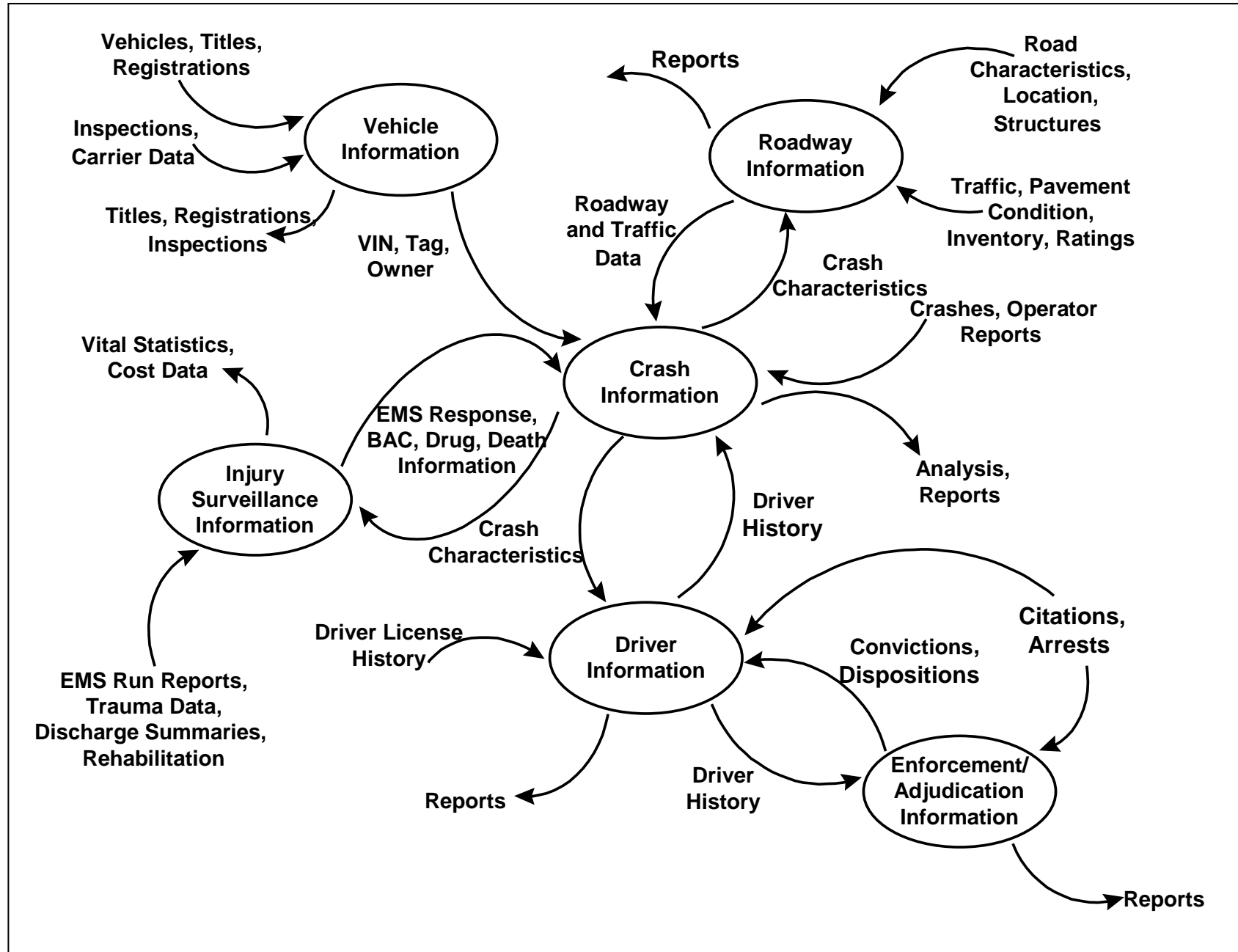


Table 1. Components of a Traffic Records System

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

## Section 1-A: Crash Information

### **Advisory**

*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 Kentucky statewide crash records system (named CRASH – Collision Report Analysis for Safer Highways) is maintained by the Kentucky State Police (KSP), Criminal Identification & Records Branch. As per Commonwealth law (KRS 189.635), law enforcement officers from municipal, county and State police agencies use the Kentucky Uniform Police Traffic Collision Report (KSP 74) to record the time, environment, circumstances, people, and vehicles involved in crashes on public roadways. The most recent revision of the form went into effect in January 2000. The revised form was part of an overall development process for the new CRASH database system using input from stakeholders via the Traffic Records Committee. The KSP 74 is a (minimum) four-page scannable form with an overlay (the cover code sheet) and fields in the margins. Supplemental pages provide space for additional units beyond the two that may be coded on the standard four-page report. The form includes data fields describing the environment, vehicle, and people involved in the crash. Space for a narrative description and diagram is also provided. Among the unique features of the form are spaces for recording data on every occupant (whether injured or not) and the use of color-coding to highlight the fields that are specific to commercial motor vehicles.

In July 2000, the KSP produced the most recent revision of the *Traffic Collision Report Manual* which is supplied to all law enforcement officers in the Commonwealth. It is the basis for training new officers in crash reporting and was issued as part of the implementation of the new form and the new CRASH system. The manual includes information on the importance of complete and accurate data on crashes, an overview of the relevant Commonwealth regulations, and a step-by-step guide to completion of the KSP 74.

All reportable crashes (those involving a fatality, an injury, or at least \$500 damage to any property) are required to be submitted to the KSP within 10 days of the investigation. Approximately 150,000 crash reports are submitted to KSP annually. Presently, reports arrive at KSP via two possible methods: in hardcopy format or via electronic data transfer. When a hardcopy report is received for data entry, it is scanned to create an image and to generate data from the scannable fields (all “bubble” fields on the form, plus a limited number of text fields which can be read through Optical Character Recognition – OCR). The remaining fields are then entered by data entry staff and the completed record is subjected to the edit process built into CRASH. The narrative and diagram are not entered into the CRASH database but do appear on the stored image of the crash report. There are approximately 1200 edit checks in the CRASH system. These are categorized as Critical, Warning, or Informational errors. If a report fails to pass all the edit checks, a clerk will review the errors and either resolve them or in the case of Critical errors, will send the report back to the originating agency for correction. Quality control at the Lexington-fayette Urban County Division of Police is performed by a trained collision investigator. Once a report passes the edit checks it is added to the CRASH database and an image of that report is stored for later retrieval. With the exception of hardcopy crash reports from the City of Louisville, Lexington-Fayette Urban County Division of Police and Jefferson County Police Department (PD), all of the processing of hardcopy reports takes place at KSP. Louisville, Lexington-Fayette Urban County Division of Police and Jefferson County PD have their own scanners and perform the data entry and error correction on their own reports. It is the only agency outside of KSP that has direct access for input into CRASH.

The CRASH system also accepts data electronically from users of the new June 2000 Electronic Collision Reporting and Analysis for Safer Highways (ECRASH) system. This system is an electronic version of the crash report together with utilities for online submission and review of crash reports. Law enforcement agencies may obtain copies of ECRASH free of cost from the KSP. The system is designed to run on PCs operating under Windows® version 98/NT or later. Law enforcement agencies may put copies of ECRASH on laptop computers or Mobile Data Computers (MDCs) for use in the field or they can opt to run the system on desktop machines in the office. KSP provides training that shows officers how to use the ECRASH system to complete a crash report. The system runs as a “wizard” that takes the user step-by-step through completion of a crash report. It includes most of the same edit checks that are performed on crash reports in the CRASH system (the only ones not implemented are those that check location information because there isn’t sufficient space to include the entire roadway listing on every PC). Users are not allowed to leave a mandatory field unanswered, and

they are not allowed to transmit a report for supervisory review until it passes the Critical edit checks. Once an officer has completed a crash report, he can upload it to a File Transfer Protocol (FTP) site maintained by the KSP. Each law enforcement department has its own folder(s) on the FTP site where uploaded crash reports are stored while waiting for supervisory review. Supervisors from that department may go to the FTP site and review crash reports. Those reports that the supervisor approves are sent on to the CRASH system for final edit checking and inclusion in the statewide database. Those reports that do not pass supervisory review are sent back to the originating officer for correction. The supervisor is also able to attach electronic notes to the returned reports. Once the officer has completed the required corrections, the report is resubmitted for supervisory review and approval.

From the point of acceptance into the CRASH system, reports that originated on hardcopy forms and those generated via ECRASH are treated identically. An image is generated for later retrieval and the data are made available on the main CRASH database. If an officer needs to update a report (for example to add a BAC value that was received after the report was submitted), a hardcopy update or ECRASH update is submitted and the new information is added to the CRASH database. At the same time, a new image of the report is generated so that the image archive always contains a complete record of every version of the submissions from the officer. At present, complete data from 1997 forward are available on the CRASH system. Many reports prior to 2000 are missing images or have incorrect image attached to the data. Some of the data are questionable.

The CRASH system 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.). Of these various uses, a standard set of analyses has been institutionalized into reports issued on a routine basis. These include the annual *Kentucky Collision Facts* and the *Analysis of Traffic Crash Data in Kentucky*. The latter report is produced by the Kentucky Transportation Center in the University of Kentucky College of Engineering. It is the source book for the problem identification process conducted by the KSP Highway Safety Branch (HSB-the office of highway safety for the State). KSP also makes data extracts available to selected users. Law enforcement agencies, for example, are given access to the CRASH system in order to develop extracts of the crash data for their own jurisdictions. The resulting files are considered "secure" in nature because they contain personal identifiers (e.g., name, address, date of birth) and as such are limited in terms of who can access the information. Unsecure data extracts (data files from which the personal identifier information has been removed) are made available to anyone upon request.

An online analytic support tool has been built into the CRASH system. Authorized users (those who meet the requirements of the Commonwealth's records law) can obtain access to the analytic tool via the statewide network or a secure Internet connection to

the KSP website. The analytic tool allows the user to select up to seven variables of interest and it will generate reports or a data extract upon command. This facility is used throughout the Commonwealth to support ad hoc queries of the CRASH database. In addition, the KSP Criminal Identification & Records Branch provides analytic support to anyone who calls asking for data or reports, provided that the request does not violate Kentucky's open records law. However, the availability of the unsecure dataset is not widely known.

Additional analytic support is provided to the KSP HSB by the University of Kentucky Transportation Center. Primarily, this support takes the form of standardized annual reports such as the *Analysis of Crash Data in Kentucky*, but the Center also performs specialized analyses of crash (and other) data in support of highway safety program management functions upon request from the HSB. A recent example called upon the Center to develop data profiling safety in each of the Area Development Districts in the Commonwealth. Once completed, these reports will be shared with the Safe Communities participants in each of these areas of the Commonwealth.

Some law enforcement agencies in Kentucky maintain their own crash records systems. Most agencies are beginning to or have already adopted ECRASH. It is anticipated that once sufficient hardware and communications have been established, most departments will implement procedures for completion of the crash report at the scene, followed by wireless transmission of the data to the agency or to the KSP FTP site. Some agencies may still retain their own Records Management Systems (RMS), but it is anticipated that they will switch from local data entry of crash information to a method which uses the CRASH system extracts to populate data fields in the local database. Some of the current local systems support data analysis of crash information (e.g., in support of engineering data requests), but we did not hear of any local system that can also provide electronic images of the crash reports. Thus, once agencies more completely move to use of ECRASH (and electronic data capture of crash information), the capability to provide hardcopy reports will exist mainly through their access to the CRASH system, not from locally maintained archives.

The Kentucky crash data are reported to be about 85 percent compliant with the MMUCC guidelines. ANSI D-16.1 was used as a reference in the redesign of the crash report. In the case of a fatal crash, additional information is collected to meet FARS requirements. With the 2000 revision of the crash report form, all required fields for the Motor Carrier Management Information System are present on the main crash report (i.e., a motor carrier supplemental report is not required).

## **Recommendations**

- Make the unsecure data extract of CRASH information available via the KSP website for download. The KSP would encourage broader use of their data by making these data available, and it might even reduce the number of analytic requests it has to handle directly. Market the availability of the CRASH database and provide training in how to access and utilize it.



- ❑ Push aggressively for full implementation of ECRASH by all law enforcement agencies in the Commonwealth.
- ❑ Provide the laptop/MDCs and communications infrastructure necessary to support true at-the-scene data collection of crash information.

## **Section 1-B: Roadway Information**

### **Advisory**

*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 Kentucky Transportation Cabinet (KTC) is responsible for maintaining 28,000 miles of the 80,000-mile public road system in the Commonwealth. Although the KTC maintains about 35 percent of the total public road miles, these roads account for approximately 90 percent of the vehicle miles traveled and about 65 percent of the reportable crashes.

The KTC has a large stake in the design, installation, and use of traffic records to support its many highway safety programs but it has no coordinating committee. Highway safety information is integral to the spot improvement and hazard elimination programs conducted by the KTC and is used extensively in assessing potential projects included in its six-year highway program. Additionally, other units in the KTC rely on the combined crash and roadway information such as the Drive Smart program, the Bureau of Design and Maintenance, and in particular the Division of Traffic.

At one time the KTC housed the Kentucky Accident Reporting System (KARS) which included crash data, roadway data and analytic routines for data manipulation and crash rate calculations. This system came on-line in 1978 and was available to on-line users at the KTC central office and district offices and to users in the Kentucky State Police (KSP). The KARS was a rigid hierarchical database and proved difficult to use, was costly, and was time-consuming.

In the early nineties, an effort was begun to address several deficiencies in the crash reporting process and the crash file. Since the statutory authority for crash reporting was vested in the KSP, they took the lead in this effort. Most of the concerns related to the accuracy of location data, the antiquated hardware and software systems at the KSP for housing the accident records, and the lag time in receiving and entering the accident reports from across the Commonwealth.

After several years of deliberation and pilot testing of newer technologies, a committee was formed primarily to design a uniform crash report to meet all identified user needs. The committee included representation from State and local police, the KTC, the University of

Kentucky Transportation Center and the Kentucky Injury Prevention and Research Center along with federal Department of Transportation officials and state EMS officials.

As a result of these efforts a newly revised crash report and a newly designed Collision Report Analysis for Safer Highways (CRASH) system was installed utilizing crash data beginning in January of 2000. However, since the CRASH system did not incorporate the analytic tools used in the KTC's KARS, the collision data from the CRASH file must be extracted and imported into the KTC's Highway Information System (HIS). This raised some initial concerns of staff in the Transportation Cabinet, but plans are underway to revise HIS and add the necessary analytic tools to meet the requirements of all Transportation Cabinet agencies.

Additionally, the KTC has installed a Geographic Information System (GIS) that will use the Global Position System (GPS) coordinates now included in the revised CRASH report. This will greatly enhance the accuracy of crash locations, a major deficiency in the previous system. The KTC purchased GPS devices in an effort to increase the accuracy of location data collected by all police agencies. Eventually location information will be available on all of Kentucky's public road system.

The two largest metropolitan areas of the Commonwealth, the city of Louisville and Lexington/Fayette County are under-utilizing the Commonwealth's available traffic records in most of their roadway improvement project development.

### **Recommendations**

- Establish a Transportation Cabinet Safety Management Committee to oversee all agency highway safety information needs and coordinate the safety programs of the agency.
- Provide data, training, and analytic support to local agencies in using the CRASH and HIS files for local safety programs, especially in the Area Development Districts.

## Section 1-C: Vehicle Information

### **Advisory**

*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 Division of Motor Vehicles (DMV), Department of Vehicle Regulation, Kentucky Transportation Cabinet. The vehicle file records approximately 2,900,000 vehicles.

The scope of information on all vehicles, private and commercial, meets the recommendations of the Advisory and is adequate for participation in the AAMVAnet applications. Kentucky participates in the National Motor Vehicle Title Information System (NMVTIS) as one of the pilot States and has two neighboring States that also participate: Indiana and Tennessee. The proximity to neighboring NMVTIS States generates more NMVTIS transactions which take advantage of the NMVTIS facilities. Kentucky has participated in the development of NMVTIS Release 2 which is expected to be implemented in February 2003. These factors should enable Kentucky to be one of the most advanced States in title processing.

Key data content includes the following: make, year, model, body type, etc., and classifications are based on use, weight class, model and year. Odometer readings are captured when vehicles are titled and when titles are transferred. R. L. Polk's VINA® program is used for VIN validations.

Commercial vehicle records are maintained in the master vehicle file and are not separated in the database, but they are distinguishable.

Inquiries against the vehicle file can be processed, but summary data reports are not requested or produced on a routine basis. The 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.

Beyond maintaining the information necessary for the vehicle registration and title functions, the information from the file supports inquiries on individual records from law enforcement and inquiries required for the FARS system. Stolen vehicle flags are

updated in a timely manner, and enforcement is interactive with the vehicle file. The vehicle file is not linked with the driver file.

Vehicle salvage and junk vehicle information is obtained from individuals and salvage yards on an "as submitted" basis. There is no requirement for periodic reporting of such information on the part of salvage yards or insurance companies at present. Title brand information is applied to the title as needed. Kentucky has experienced some difficulties in working with title brands from other States. This stems in part from a lack of consistency in the threshold of damage that allows reconstruction of a salvage vehicle.

No user had a complaint concerning the content of the vehicle file or the responsiveness of the DMV to requests for information.

### **Recommendations**

None.

## Section 1-D: Driver Information

### **Advisory**

*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 Division of Driver Licensing (DDL), Department of Vehicle Regulation, Kentucky Transportation Cabinet. The information on approximately 2.9 million licensed drivers supports the functions of license issuance and driver control, and the file includes a half million records on persons not licensed in Kentucky but have convictions or withdrawals in effect.

The file contains the information necessary to participate in the National Driver Register and the Commercial Driver License Information System (CDLIS). Records on learner and provisional licenses are maintained. NHTSA recognized Kentucky as a graduated license program State initially but has designated the system as partial at present because of a lack of a night driving restriction. The system maintains driver education class information which is particularly useful for indicating course completions for those assigned to driver education classes.

Driver histories from previous States are not included in the driver file when licensing persons who have held licenses in another State. Such drivers must not be under suspension or revocation, however, to become licensed. The problem cited was the inability to translate or equate the convictions of other jurisdictions to those in Kentucky. This function is applied, however, in CDLIS.

Convictions from all levels of courts are entered into the driver history, and they populate the file through electronic transmissions from the system maintained by the Administrative Office of the Courts (AOC). Some abstracts received from the counties not yet participating in the AOC electronic system are submitted on paper documents and keyed into the file.

Citation tracking systems exist only within the enforcement agencies issuing citations. There is no statewide system which accounts for each printed citation document through final disposition. The DUI convictions in the driver file do not contain BAC data.

When driver improvement officers need BAC information, they must obtain it from other documents.

Crash information is posted to the driver file without any indication of fault. This information is contained in the “5-year” record which is available to Commonwealth agencies, but it is masked out of the “3-year” record which is available to the public and insurance companies.

The driver data appear to meet most of the recommendations of the Advisory and the functional requirements of AAMVAnet. The exception is the lack of convictions from previous States of record.

The driver file is not operationally linked with the vehicle file. It is accessible electronically for court and enforcement inquiries. Within the constraints of the Commonwealth’s Driver Privacy Protection Act the driver file serves authorized users.

The file is not generally used for statistical analysis, but statistical and other reports are produced upon request. The DDL is currently not represented on the Traffic Records Committee. Therefore, the DDL does not have input from all potential users of this data, nor does it have contact with managers of other traffic records system components that could benefit from sharing data with the driver file.

The driver license document contains the essential driver data. It also contains a 2D bar code that can replicate the image of the licensee and enables automated capture of identification data. The driver license document for minors is oriented vertically (portrait mode) so that minors can be easily distinguished which assists in the enforcement of beverage control limitations. Color coding and lettering also make it easy to distinguish license types and graduated license restrictions.

## **Recommendations**

- Become an active participant in a Statewide Traffic Records Coordinating Committee when such a committee is re-constituted according to the recommendation in Section 4-A of this report.
- Begin the process of translating and entering the conviction histories of prior States of record in a manner consistent with the CDLIS processes using the AAMVAnet Coding Dictionary.
- Coordinate plans for upgrading the driver file with those components of a comprehensive statewide traffic records system, especially those with electronic crash and citation data collection systems.

## **Section 1-E: Enforcement/Adjudication Information**

### **Advisory**

*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**

Kentucky does not have a system to track citation and conviction data as described in the Advisory. There is a uniform citation form that was developed by the Kentucky State Police (KSP) and approved by the Administrative Office of the Courts (AOC). The citation is sequentially numbered and would, therefore, lend itself to an electronic statewide tracking system. Law enforcement agencies are not required to track citations, but some have set up their own tracking systems.

Each of the 120 counties in Kentucky has district courts that hear all traffic cases. Conviction information is forwarded by the AOC in each county to the Department of Vehicle Regulation (DVR), Division of Driver Licensing for entry onto the driver file. Seventy-three of the 120 district courts electronically transfer conviction data to the DVR, while the remainder are still sending the information via hard copy abstracts.

There were conflicting reports from the law enforcement agencies interviewed as to the ease of acquiring disposition data from the AOC. Some stated that dispositions could be retrieved easily using the citation number but others reported that the court docket number had to be used for the retrieval and that this number was not easily acquired. Attempts to contact the AOC to clarify this issue were unsuccessful. It was also reported that many law enforcement departments are developing methods to electronically capture and report citations but the AOC has stated that it will not accept the electronically filed citation.

The KSP developed a citation file using the New Integrated Criminal Apprehension Program (NICAP) that is available to all law enforcement agencies in Kentucky. This was supposed to be a temporary fix until the new Record Management System (RMS) came on line. Final approval of this RMS should be completed by the end of November 2002. Twenty-six police departments within the Commonwealth are using NICAP to enter and retrieve citation data. Law enforcement departments not using NICAP have



no access to information on their citation unless they establish locally developed citation systems. The ECRIME system that is in development at KSP will allow for electronic transfer of all criminal charges into the new Commonwealth RMS. The new RMS will allow the transfer of traffic citations into the state central repository database. This will be very beneficial to the law enforcement community in streamlining the citation issuance process but the potential advantages to court processing will not be realized unless AOC drops its opposition to electronic filing of citations.

## **Recommendations**

- Create a statewide tracking system for citations with the capability to monitor a citation from printing to final disposition and to better quantify the Commonwealth's traffic violation experience.
- Continue development of ECRIME and the RMS. Use these systems to create an automated citation/conviction file to include at a minimum the location of violation, original charge date and time of occurrence, the enforcement agency, court of jurisdiction, and final disposition. Ideally, this would be a function of the statewide tracking system.
- Pursue negotiations with the AOC for acceptance of electronically transferred citations.
- Pursue negotiations with the AOC to create the capability to electronically update the new RMS with conviction information.

## Section 1-F: Injury Surveillance System Information

### **Advisory**

*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 Commonwealth of Kentucky has recently reconfigured the structure of its Commonwealth EMS office. In 2002 a revision to the law, KRS Chapter 311(a) established the Kentucky Board of Emergency Medical Services (KBEMS) as the lead agency and regulator entity for the Commonwealth. This action moved the lead EMS agency out of the Department of Public Health and established a freestanding regulatory body. KBEMS consists of by statute eighteen board members. Among other activities, KBEMS is charged in statute with the certification and licensure of EMS providers, certification of EMS system medical directors, the inspection and certification of all Public Safety Answering Points, the certification of EMS instructors and institutions, and the establishment of continuing education requirements. KBEMS is not charged as the lead agency for trauma, nor is there any provision in statute for any lead agency for trauma. Because of the relative newness of KBEMS, many of the traditional functions of a "State EMS office," are not fully in place. It is apparent that KBEMS is not functioning as, nor is it recognized as, a stakeholder in the highway safety community.

KBEMS is not included in most highway safety planning and implementation programs, nor has it received any State or community grant funds for many years.

The Commonwealth's EMS delivery system incorporates more than 254 individual transport services and approximately 15,000 individual providers at the First Responder, EMT-Basic, and EMT-Paramedic levels. It is estimated that more than 500,000-700,000 emergency patient transports annually, although there is no data collection system in place to verify this information. It was reported that EMS services are reasonably well distributed across the Commonwealth yet there are a few EMS underserved areas in some of the more rural parts of the Commonwealth, particularly east of I-75. About 80 percent of the services are paid services and 80 percent of the Commonwealth's population is served by Advanced Life Support (ALS) services. All but eleven counties are served by ALS. This is quite unique as the national average is about 75 percent volunteer and the ALS coverage far exceeds what is typical. The residents of Kentucky are fortunate to have this advanced level of service throughout the Commonwealth, particularly given its rural nature.

KBEMS is charged in statute with developing and implementing a statewide EMS data collection system. To date resources have not been available to implement such a system. KBEMS currently mandates the use of a form which collects the 81 data elements of the NHTSA uniform prehospital data set. There is no requirement that the reports be submitted to a statewide reporting system. KBEMS recognizes this deficiency and has plans underway to implement an electronic data collection system. Information exchanges with managers of successful statewide EMS reporting programs are underway. As yet funding for development of Kentucky's system has not been identified.

There is no specific trauma system legislation and no specified lead trauma agency. KBEMS has received a Health Resources Services Administration (HRSA) Trauma Planning and Implementation grant although it is precluded in statute for administering such a system. Several KBEMS board members have assumed leadership roles in an attempt to develop such a system, yet at present there is no statewide trauma system. There is in place a voluntary system that includes five self designated trauma centers verified by the American College of Surgeons/Committee on Trauma using the *Optimal Standards of Care for the Trauma Patient*. There are three Level I's and two Level III's. All five trauma centers have individual trauma registries for individual center performance analysis. The system is somewhat "exclusive" in that only patients who are treated in one of the five trauma centers are captured in the individual registries. These five centers voluntarily participate in a combined trauma registry administered by Kentucky Injury Prevention and Research Center (KIPRC). Because this is an exclusive registry there is no statewide aggregated data currently available for analysis to determine, whether the typical trauma patient, not treated in one of the five centers, was getting to the right facility in the right amount of time.

Kentucky is a Crash Outcomes Data Evaluation Systems (CODES) project State. This project links the crash file with the hospital discharge data file using probabilistic

linkage. No other files such as EMS ambulance run data file, driver license data file, traumatic brain injury data file, Vital Statistics death data file, or roadway identification files, are incorporated in this project. It is troublesome that several of the fundamental files, such as statewide EMS data and statewide trauma data are not currently available. Hospital discharge data, the five trauma registries, and death certificate information are available. The CODES project represents a remarkable opportunity to link health and safety data. However, there is no evidence presented that the other files are capable of being linked at this time.

There is great potential for data that would be generated by the system for injury surveillance. KIPRC has taken the lead for injury surveillance throughout the Commonwealth, yet there is no formal agency or organization that serves as the lead for injury prevention for the Commonwealth. The Kentucky Department of Public Health has recognized the need for such leadership and designated KIPRC as the agency to develop such a program. KIPRC developed a *Core Commonwealth Injury Surveillance and Program Development Plan*, which includes most of the attributes of an effective ISS program and incorporates the fundamental components recommended by State and Territorial Injury Prevention Directors Association. Unfortunately this project was not funded. In spite of this, KIPRC has produced some excellent reports, such as the Safe Community reports. KIPRC has also received a Centers for Disease Control grant to study the effectiveness of injury prevention activities funded through Safe Communities.

The lack of a statewide EMS data collection and interpretation program and the lack of a statewide trauma registry severely limit the Commonwealth's ability to measure EMS system performance. These data are fundamental to any statewide ISS. Even in light of great potential, there does not appear to be a functioning, integrated, comprehensive, and coordinated statewide Injury Surveillance System. However, there are a few very fine local injury surveillance programs. It is clear that a constituency has not been identified and forged, and effective communication has not taken place among health care/highway safety stakeholders.

## **Recommendations**

- Pursue rapid development and implementation of a computerized statewide EMS data collection system.
- Pursue eligible State and Federal highway traffic safety funding opportunities including Sections 402, 403, and 411, and citation surcharges.
- Forge partnerships with healthcare and highway safety constituents to coordinate and implement a statewide ISS. Include appropriate stakeholders specifically KBEMS in all deliberations concerning data integration and linkages.
- Fund and implement the *Core State Injury Surveillance and Program Development Plan*.



## Section 1-G: Other Information

### Advisory

*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**

Kentucky has a statewide GIS coordinating committee. The Transportation Cabinet has implemented a GIS for use in coding roadway locations. This GIS has been adopted by KSP for implementation in the CRASH system, but only very recently, so it is difficult to assess the level of success for this project at present. A notable advance in crash location coding was the Transportation Cabinet's purchase of GPS units for every law enforcement officer in the Commonwealth. This means that officers can collect latitude/longitude data at the scene of the crash and add this information directly into the crash report. There was some concern that the accuracy of the units (or the officers' use of them) was not sufficient for engineering purposes. Testing by the Transportation Cabinet staff showed that the GPS units have more than sufficient accuracy. Therefore, the remaining concerns are with respect to the officers' use of the units to collect data from the correct part of the crash scene.

In addition to the statewide GIS initiatives, some local agencies have also implemented their own GIS systems. The Lexington/Fayette Urban County Government, for example, has an extensive GIS mapping capability along with aerial photos of all roadways in the jurisdiction. It was not clear whether this GIS was compatible with those being planned or implemented at the State level. One major concern regarding sharing data between local and Commonwealth GIS databases is the frequency and completeness of updates to the maps and street lists.

Insurance compliance data are collected from drivers at the scene of crashes and during routine inspections of motor carrier companies and vehicles. There were no examples of the use of insurance company data to support traffic safety analyses.

The Highway Safety Branch (HSB) evaluates safety programs in two ways. First, HSB staff perform site visits as well as data reviews and financial audits of all grant-funded safety programs. Secondly, the HSB has, on occasion, hired the Kentucky Transportation Center to perform detailed countermeasure evaluations requiring extensive use of crash and other datasets (such as citation/arrest, conviction, etc.).

The Kentucky Transportation Center routinely uses demographic data to calculate crash rates normalized on population characteristics. In addition, driver licensing information is available for use in normalizing on driver characteristics such as age, gender, and county of residence.

An annual occupant protection survey is conducted by the Kentucky Transportation Center under contract to the HSB. In addition, Kentucky collects data on every occupant involved in most crashes regardless of injury status. The exception is collisions involving buses, where only the names of the non-injured are collected and entered separately but their seating position is not identified. Availability of this information could support an unusually broad range of crash analyses for use in analyzing driver and occupant characteristics and injury outcomes at all levels of crash severity.

The economic consequences of crashes are primarily captured through the use of hospital discharge data by the Kentucky CODES project and other health-related analytic processes. The Transportation Cabinet uses very conservative cost estimates for fatalities, injuries and property damage in crashes as part of their cost/benefit analyses in the hazard elimination program. The estimated cost of a fatality was set at \$100,000 – well below the standard figures recommended by the Federal Highway Administration, National Highway Traffic Safety Administration, or the National Safety Council.

There is no inventory of traffic records data sources in Kentucky. Neither a simple listing of data files nor a more complete data catalogue (providing the data dictionary for each source) is available.

The HSB collects performance data on all grant-funded programs. The countermeasures established under grant funding are measured to ensure that they have been implemented as described in the grant and to ensure that the financial information is correct. A few programs have been measured as a means of determining whether or not they have been effective in meeting their stated safety goals.

There were a small number of examples of ITS-related projects in Kentucky. None of them appeared to be used for collection of safety data.

## **Recommendations**

- Ensure that statewide GIS development efforts do not undermine the existing capabilities at the local government level. In particular, coding of crash locations



should be done on a uniform GIS if at all possible, but the capabilities of the statewide system should be such that agencies such as Lexington/Fayette Traffic Engineering do not lose the analytic power their system already has.

- ❑ Implement map-based input and correction of crash location information as soon as possible.
- ❑ Make more use of the data on uninjured occupants in the CRASH system. For example, replace “date of birth” with “age” in the unsecure file.
- ❑ Use nationally accepted economic costs for a crash in cost/benefit analyses.
- ❑ Establish and maintain an inventory of traffic records data sources. A first step should be to list the data sources and contact personnel for each major Traffic Records System component. A more complete inventory should ultimately be created by compiling all the data definitions and file layouts (where applicable) for each of the components.

## 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

### Advisory

- ❑ *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 - With the implementation of the CRASH system, the timeliness of crash data in Kentucky has improved markedly. From a previous backlog that was reported to be as long as nine months, the average delay from the date of the crash to the date on which the data are added

to the CRASH system has dropped to less than 20 days. Crashes submitted using the ECRASH system are added to the system even faster – within 14 days, on average.

Timeliness of crash data entry into related systems, notably the Motor Carrier Management Information System (MCMIS)/SafetyNet system for motor carrier crashes, has benefited from the implementation of the CRASH system. In the case of SafetyNet, data are now uploaded electronically into MCMIS using an extract from the CRASH database. This saves data entry time and has probably contributed to the relatively short backlog of crashes awaiting data entry into MCMIS. A major effort on the part of the Kentucky Vehicle Enforcement staff has all but eliminated the backlog that existed approximately one year ago.

Consistency - The MMUCC guidelines and ANSI D-16.1 were used as references in the latest revision of the crash report form. The MMUCC guidelines were not completely adopted, however KSP reported that the new form is approximately 85 percent MMUCC compliant.

Consistency in reporting among the various law enforcement jurisdictions has improved with the implementation of the CRASH system, and even more so with the use of the ECRASH system. These improvements may be attributed to changes in the form, use of the *Traffic Collision Report Manual*, and the extensive edit checks built into CRASH and ECRASH.

Completeness - There is no empirical method to verify that crash reports are being received by KSP for all reportable crashes. The supposition is that by setting the property damage threshold low (\$500), the vast majority of reportable crashes are in fact being investigated and reported by law enforcement agencies. However, it was reported that at least one large agency had decided to set their own reporting criterion so that they would only investigate and report a crash if it involved a towaway or injury/fatality. Reports must be sufficiently complete to pass the Critical edit checks built into the CRASH system.

During the discussions that resulted in the redesign of the crash report form it was decided that a detailed diagram would not be required on non-injury (property damage only) crashes. Instead, the officer is allowed to select from among a set of generic crash types. From an engineering perspective, the lack of a diagram makes the crash report difficult to use in diagramming the crashes at a location because the orientation, direction of travel, and precise relationships of the vehicles cannot be determined. In an effort to get better diagrams on a greater percentage of crashes, KSP purchased copies of a drawing package (Easy Street Draw®) and gave them to law enforcement agencies throughout the Commonwealth.

Crashes involving commercial motor vehicles seem to be problematic in that there is no easy way to verify from within CRASH that the motor carrier extract contains all the federally reportable crashes. The current data extraction method is known to include some crashes that do not actually have a commercial vehicle involved. The most common cause of this error was miscoding of a vehicle as “commercial” when it was

not. It was unknown, however, how many reportable crashes never made it into the extract because of mistakes in coding on the part of the officer or the data entry clerk.

Accuracy - KSP has implemented a number of important quality control measures to ensure the accuracy of crash data. The first level of quality control involves the use of extensive edit checks in the CRASH and ECRASH software. These edit checks are divided into three levels of severity (Critical, Warning, and Informational). Crashes with critical errors are not accepted into the system. The second level of quality control is that crashes with critical errors are returned to the originating officer for correction. In the case of a hardcopy report, KSP mails the report back to the originating agency with a note explaining the errors that are in the report. In the case of crash reports created using ECRASH, the system will actually stop the officer from completing a report until it passes all of the critical edit checks except those related to location verification. Lexington-Fayette Urban County Division of Police also rejects reports that have warning errors, not just critical errors.

It was reported that the edit checks for location names and codes (including latitude/longitude) have proven problematic. With respect to street names, alias names are a problem that has not been resolved. With respect to latitude and longitude data, it was reported that the associated edit checks were only recently activated and as such some of the data entered into the system prior to this activation is suspect. Since latitude and longitude information is gathered in the field using a GPS device, there was some concern that the officers may not always activate the device from an appropriate position in relation to the events of the crash. Given the accuracy of the GPS units, it would seem that the officers should be able to stand within ten-to-thirty feet of the location of the first harmful event and still be able to turn in useful data for engineers. The Transportation Cabinet is developing a "snap to" function in their GIS that will ensure that locations are translated (if necessary) into a valid spot on the roadway. The Transportation Cabinet has the capability to correct location information in the CRASH system. Any such changes apparently become part of the official record of the crash and are reflected in the image archives. There is no change to the original image. Additional fields have been added to the database to modify data. No original data is changed.

Accessibility - Law enforcement agencies (and other authorized users) have access to the "secure" dataset contained in the CRASH system. This access is usually limited by jurisdiction so that agencies can only access a portion of the data. The notable exceptions are selected staff of the KSP and the Transportation Cabinet who are allowed full access to the entire database. Kentucky's records law specifies who can have access to personal information in the otherwise "open" databases maintained by the Commonwealth. For these authorized users, KSP has developed an analysis and data extraction tool that can be accessed via the Internet or the statewide network. In addition, engineering users at the regional or local level can obtain CRASH data extracts and accompanying roadway information extracts covering their jurisdictions from the Transportation Cabinet.

Potential users who do not meet the requirements of the law can still have access to crash data, but it must first be "cleansed" of any personal identifying information such as

name, address, or date of birth. This limitation is not important for most analytic users, but has presented problems for some users such as the CODES and Injury Prevention programs in the Commonwealth. KSP supports analysis of data for all users and performs ad hoc data queries, summaries and extracts for users who are not allowed to see the personal identifiers contained in the CRASH system. Users who want a copy of the data can obtain the “unsecure” dataset from KSP upon request.

Integration - The CRASH system is designed to integrate and share data with any system that accepts or can output data extracts in a standardized format. To date, only the Transportation Cabinet’s roadway inventory (i.e., location-based) system and the Department of Public Health’s Hospital Discharge database have been used to share data with the CRASH system. The CODES project in the Injury Prevention program was the only example presented of true integration of data to form a single database.

There were no examples of real-time data sharing between the CRASH system and other components of the Traffic Records System.

## **Recommendations**

- Increase compliance with national guidelines and standards, e.g., MMUCC and ANSI D-16.1.
- Enforce compliance with the law regarding crash reporting thresholds.
- Require diagrams on all reportable crashes.
- Rewrite the extraction procedure to match exactly the reporting criteria used in MCMIS.
- Develop a simple location verification method for ECRASH.
- Ensure that local and State GIS street lists are current and compatible.
- Create year-end unsecure extracts of the CRASH data and make those available for downloading from the KSP website.
- Create specialized data extracts that meet the CODES Project and Injury Prevention Program needs for additional data describing the non-injured occupants of crash-involved vehicles.
- Expand the role of the Traffic Records Committee to include promotion of data integration among the various components of the Traffic Records System.

## 2-B: Roadway Information Quality

### Advisory

- ❑ *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 - HIS is undergoing major revision however, the data are extremely timely. Roadway alignments are updated daily and are kept very current.

Consistency – Since the installation of the newly revised CRASH system, consistency of location and history information have been disrupted. However, plans are in place to restore consistency in the revised HIS. The disruption and inconsistency of location and historical information is with the CRASH data, not with the HIS system.

Completeness – Along with the revision of HIS, the Transportation Cabinet purchased GPS devices for all law enforcement agencies. The use of these devices to capture coordinates at crash locations with upgrades to the Cabinet's Geographic Information System (GIS) will enhance the completeness of the road and crash data used in highway safety analysis. The GPS devices purchased for law enforcement should enhance the accuracy and completeness of the CRASH data. They have nothing to do with the roadway data. The Transportation Cabinet has purchased survey-quality GPS

devices to use for roadway alignments. These particular devices will enhance the roadway centerline quality.

Accuracy – Crash location information is not currently accurate.

Accessibility – Currently the Transportation Cabinet allows access to all qualified users in the agency. However, access outside the Cabinet headquarters is limited. Data extracts are provided to users outside the Cabinet including contractors and Area Development Districts.

Data Integration – Roadway data are integrated within the Highway Information System. Integration of CRASH data with the HIS is problematic due to poor quality location data on the CRASH Report. Integration with other traffic record files is not apparent.

## **Recommendations**

- Provide direct access to the State's HIS for all qualified users.
- Train all qualified users in the use of the State's HIS.
- Charge the Transportation Cabinet with the responsibility to improve crash location data quality in cooperation with other traffic records information stakeholders. Jointly charge the KSP and the Transportation Cabinet with the responsibility to work with data providers to improve crash location data quality in cooperation with other traffic records information stakeholders.
- Establish a standard that determines the reference point (waypoint) for locating crashes.



## 2-C: Vehicle Information Quality

### **Advisory**

- 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 AAMVAnet support.

Completeness – The vehicle file is complete.

Accuracy – The vehicle file is accurate. VINA analysis is used to enhance the accuracy of VINs and validate VIN authenticity.

Accessibility – The file information is accessible for authorized users and is available to other users, consistent with the requirements of the Privacy Protection Act.

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

## **Recommendation**

- Establish linkage with the CRASH System.

## 2-D: Driver Information Quality

### Advisory

- ❑ *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.

Consistency – Data content appears to meet the requirements of the NDR, CDLIS, and other applications of AAMVANet and the recommendations of the Advisory.

Completeness – The data contain all of the elements for all drivers, but does not include convictions from previous States of record. The driver file contains conviction information submitted by the courts. However, the absence of information from the

AOC and courts did not permit verification of the completeness of these conviction abstracts.

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 does not link with any other file except for receiving the conviction input from the courts.

### **Recommendations**

- Establish the procedures to capture and maintain convictions for serious offenses (as defined by AAMVA) from previous States of record.
- Coordinate and become involved in any emerging planning process for developing a comprehensive statewide traffic records system.

## Section 2-E: Enforcement/Adjudication Information Quality

### Advisory

- ❑ *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**

NOTICE: The findings presented in this section are based on incomplete information because the primary custodian of citation/disposition data (the Administrative Office of the Courts (AOC)) declined to participate in the assessment process in person or by telephone.

Timeliness – There is no information available on the length of time from court disposition to entry on the driver file or the AOC citation file.

Consistency – The Kentucky State Police (KSP) develops and the AOC approves a citation form that is used uniformly by all Kentucky law enforcement agencies.

Completeness – It was reported by non-AOC personnel that all citations are recorded on a statewide citation file at AOC, however the completeness of this file is unknown. Convictions from the courts are forwarded for entry on the driver history record but no information was available to determine whether all courts are submitting all convictions.

Accuracy – While citations issued by individual law enforcement agencies appear to be accurately maintained on their own systems and/or the KSP National Integrated Criminal Application (NICAP) system, no information was available to determine the accuracy of that in the AOC file.

Accessibility – Final disposition is accessible on the driver history but if the original charge is reduced or changed the issuing date is changed to the date of the change. This makes matching the original citation with that for which the final disposition is received extremely difficult if not impossible. Courts do not use the citation number to identify cases or to link to the case. Parties interested in individual case status must go through AOC to determine disposition or status, but this is a cumbersome and difficult process.

Data Integration – Individually maintained citation files and the KSP NICAP files are not linked to driver and crash files. It was reported that the AOC can feed dispositions to the driver file but the ability to link AOC disposition data with other files is unknown.

## **Recommendations**

- Design and implement a statewide automated citation/disposition file to include information which will track citations from printing to disposition. The file should include at a minimum the citation number, date, time, location, type of charge, violator, vehicle identifier, enforcement agency, adjudicating court, date of adjudication, and adjudicated action. The current AOC system would possibly be the logical backbone of this system, but AOC's voluntary isolation from other highway safety information stakeholders may rule out their involvement. Should the AOC system be ruled out, determine possibility of transfer of AOC funds to finance a useable system.
- Make all data from the recommended citation/disposition file available to all legitimate users where permissible by law. This can be accomplished through ad hoc reports, opening the file to users, or providing sanitized downloads.
- Provide for linkage between this citation/disposition file and other appropriate traffic record files.
- Request the Governor's Representative for Highway Safety to explain to AOC the benefit of their cooperation in meeting the needs of all traffic safety stakeholders.

## 2-F: Injury Surveillance Systems Information Quality

### Advisory

- ❑ *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 mandated statewide ambulance form or local surrogate but at this time there is no ability or requirement to aggregate and analyze the data for system improvements. The data are not being collected or analyzed at the Commonwealth level although it was reported that several agencies are using their data at local level. Trauma registry data from five trauma centers are entered in local hospital registries and are sent to KIPRC as the manager of the limited exclusive trauma registry. Hospital discharge data is available within six months and other data files appear to be available in a timely manner.

Completeness - There is no statewide EMS data collection system in place. There is a limited exclusive statewide trauma registry and each of the five designated trauma hospitals maintain local trauma registries that are exclusive in that they capture data only from those trauma centers that are members of the system. Trauma patients that may be seen in other than the five designated centers are not captured in any registry. There is no Trauma Brain Injury Registry that includes brain injuries from all hospitals in the Commonwealth.

Accuracy - Although there is a legal requirement to use a standard form for all transports these data are not collected nor analyzed at the State level at this time. The data are used locally for local Quality Assurance (QA) programs but are not checked for accuracy at the State level. Local system medical directors provide QA at the local level. Quality control measures for the local trauma registries are unknown. Hospital discharge data is edited for validity by CompData, the Commonwealth's contractor.

Accessibility - There are no statewide EMS run data available for analysis. There is a limited voluntary Trauma Registry and data are available in summary form

Linkage - The linking of statewide injury data does not occur, except for a CODES project that links the crash file with the hospital discharge data file. A critical file, an "inclusive" statewide trauma registry, is absent from this project, as is statewide EMS run data. Until a comprehensive statewide EMS run reporting system is functioning, it is questionable if meaningful information will be generated to assist in injury control and surveillance at the State level.

## Recommendations

- Pursue eligible State and Federal highway traffic safety funding opportunities including Sections 402, 403, and 411, and citation surcharges.
- Pursue the development and implementation of an inclusive statewide trauma registry.
- Participate in cooperative efforts including those aimed at linking injury data with other traffic records information.





## 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

#### Advisory

*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**

The mission of the Highway Safety Branch (HSB) within the Kentucky State Police (KSP), which administers the Governor's Highway Safety Program, is to reduce the number and severity of traffic crashes on Kentucky roadways that result in deaths, injuries and economic losses from property damage. Each year the office is required to review and update its goals and objectives to accomplish the mission and to submit the Commonwealth's Highway Safety Plan. HSB is responsible for developing and implementing countermeasures to address identified traffic safety problems. These become projects with performance measures that must be evaluated using traffic records data to study pre- and post-project conditions. Projects must be evaluated either administratively or for impact using traffic records data and other pertinent information.

The HSB is not organizationally positioned to have sufficient authority or power to direct the development and integration of data systems. The office is several organizational levels down from the Governor's Highway Safety Representative (the Commissioner of the Kentucky State Police).

Project evaluation is accomplished with the active participation of the Kentucky Transportation Center in the University of Kentucky College of Engineering. The Transportation Research Engineer in charge was previously placed in the Department of Transportation and has some 30 years of experience in performing the data acquisition and analysis required for highway safety. The Kentucky Transportation Center provides virtually all of the analytic functions needed by HSB.

Examples of reports produced by the Kentucky Transportation Center for HSB are:

#### Annual Reports:

- Problem Identification for the Highway Safety Plan
- Seat Belt Survey
- Safety Facts

#### Special Reports:

- Evaluation— Click It Or Ticket
- Evaluation— Alcohol -- You Drink, You Drive, You Lose

## Pedestrian Involvement And Injuries

They also generate analyses for the Kentucky Transportation Cabinet including analysis of High Accident Locations, Critical Rates, and Accident Rates for Intersections. The Kentucky Transportation Center generates crash rates as a part of the development of the “Analysis of Traffic Crash Data in Kentucky” project. Using these rates for various roadway classifications, the Transportation Cabinet generates analyses for High Crash Locations.

The Kentucky Transportation Center has also analyzed conviction rates for the Administrative Office of the Courts (AOC) (Conviction vs. Arrest) on DUI only. However, the data from AOC is limited to summaries of DUI arrests by county. These summaries are compared to the DUI convictions posted to the driver history file. The lack of more detailed information from AOC has precluded any further analyses of DUI arrests and conviction rates.

The *Analysis of Traffic Crash Data* presents much more than the typical sets of tables and charts. It contains recommendations with respect to highway safety programs, evaluations needed, and discussions of concerns that may be appropriate with respect to factors influencing the utility of specific data content. Material in the publication is presented with a disclaimer identifying that the conclusions and recommendations are those of the authors and not the official positions of the KSP or the University of Kentucky.

The HSB is also responsible for identifying countermeasure programs that need to be instituted and for administering the funding for such programs. In addition to processing grant requests for broad based programs, HSB also conducts workshops for localities to generate their own grant requests.

There is an active Traffic Records Committee (TRC) but it does not have high level representation from the organizations represented and consequently has no authority to define and apply changes that might be required or to develop new capabilities. Although the Kentucky Transportation Center has the expertise to acquire and use the data from the independent and separate data systems, the Commonwealth does not appear to have plans for integrating those for traffic safety purposes. The TRC does not include representation from all stakeholders.

- Recommendations
- Elevate the Highway Safety Branch into an Office of Highway Safety reporting directly to the Governor’s Representative for Highway Safety. Empower that office to select, implement, manage, and evaluate those highway safety programs, i.e., NHTSA 402 programs, under its authority.
- Formalize the TRC to include high level representation from all stakeholders.

- ❑ Assign TRC the task of developing a Strategic Plan to include the development of a comprehensive traffic records system. A major issue to be addressed is the lack of integration, especially the lack of participation by the AOC.

## 3-B: Research and Program Development

### **Advisory**

*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 Kentucky Crash File is accessible to users to identify safety problems and trends. The Kentucky Transportation Center prepares an annual problem identification report and various research reports using the on-line crash database. The Highway Safety Branch (HSB) of the Kentucky State Police (KSP) uses these reports to develop the Highway Safety Plan for the Commonwealth. The HSB also uses these reports to evaluate safety improvements. The Transportation Cabinet uses on-line and ad hoc reporting from the crash database, GIS and HIS system to develop its six-year statewide highway plan and safety initiatives and evaluate roadway safety improvements.

It is unfortunate that the Administrative Office of Courts (AOC) does not supply any detailed citation/disposition data that would allow the HSB and law enforcement to look at countermeasure activity.

### **Recommendations**

- Develop the analytic capabilities of the HSB staff.
- Develop strategies to convince the AOC of the value of sharing its data resources with the broader highway safety community.

### 3-C: Policy Development

#### **Advisory**

*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**

Kentucky's safety policy development and program planning seems to exist within the State Police and Transportation Cabinet activities and not on the deliberations of a broad based coalition of Kentucky's highway safety stakeholders.

The mission statement of the Kentucky Governor's Highway Safety Program administered by the Kentucky State Police is to act as the focal point for highway safety issues in Commonwealth by providing "...leadership by developing, promoting and coordinating programs, influencing public and private policy, and increasing public awareness of highway safety issues."<sup>1</sup> The mission of the Kentucky Transportation Cabinet is to provide a safe, efficient, environmentally sound, and fiscally responsible transportation system which promotes economic growth and enhances the quality of life in Kentucky.

To fulfill the mission, the Kentucky State Police along with the Transportation Cabinet commissioned the Kentucky Transportation Center to identify safety problems throughout the Commonwealth through analysis of the Commonwealth's crash records and roadway files. The State Police and Transportation Cabinet maintain these automated files. Although the Transportation Center provides various research, the Transportation Cabinet has tools and methods available to identify safety problems.

A Governor's Coalition for Highway Safety, chaired by a Governor's Office staff member, exists with its primary focus on legislative issues. It is not clear whether highway safety information other than crash data is available to the Coalition. Recent contact with this staff member indicates that this is a loosely existent coalition formed for the sole purpose of passing a primary seatbelt law.

A Traffic Records Committee was formed for the purpose of planning and developing a revised crash form and thereafter the redesigned CRASH system. This committee is not a Traffic Records Committee and exists solely to create and enhance crash reporting. It was initially formed and paid for by the Transportation Cabinet in 1993 as a JAD group to insure all parties were involved. Over the years it has evolved into the current CRASH committee.

Not all highway safety information pertinent to highway safety policy development is available to policy makers. Most notable are records on citations from the

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<sup>1</sup> Governor's Highway Safety Program - Kentucky 2003 Performance Plan

Administrative Office of Courts and Emergency Medical Services Records on crash victims.

### **Recommendations**

- Create a high-level statewide highway safety oversight and coordinating committee for all of Kentucky's safety programming. The existing Governor's Coalition for Highway Safety may serve this purpose.
- Formalize the existing Traffic Records Committee (TRC) and obtain Cabinet level support and recognition.
- Persuade all safety stakeholders with custodial responsibility of any Traffic Records files to participate in the TRC.



### 3-D: Private Sector and Public Requests

#### **Advisory**

*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**

The Commonwealth is an open records State, and follows the guidelines established in the open records law, KRS 61.870. Access to available information from various sources was not demonstrated to be a problem. The Kentucky State Police have a designated "Official Custodian of Records," and all requests for information are sourced through this office, and forwarded to the appropriate office for response. All requests must be answered within 72 hours of receipt. A Website is also used that provides valuable information to potential users.

KSP can produce summary reports as well as ad hoc reports. Additional reports are produced through the Kentucky Transportation Center (KTC), the Kentucky Transportation Cabinet and the Kentucky Injury Prevention and Research Center (KIPRC).

Although access to reports and data did not seem to be an issue in the Commonwealth, the recognition that these reports were available to other potential highway safety stakeholders, did. It appeared to be well understood within KSP what information and reports were available, but outside of that community there seemed to be a significant lack of understanding about what was available and where to get it. Several local entities out side of the KSP did not even know that these reports were available, or what the contact source was. The fact that there was even a highway safety office was unknown to some who were participants in the highway safety community. This observation not only applies to information about reports produced by KSP, but also KTC and KIPRC. It seems that there is not a clear understanding within the Commonwealth concerning who all the highway safety stakeholders are or what their role is.

#### **Recommendation**

- Identify all highway safety stakeholders, provide a forum for information exchange and market information and data availability among these stakeholders and the public.

## 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

### **Advisory**

*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**

During development of the Kentucky CRASH system the Records Branch (now known as the Criminal Investigation and Records Branch) of the Kentucky State Police recognized a need for a traffic records committee with representation from all crash information stakeholders. Such a committee was formed and did an outstanding job in the development of a crash system. Once the crash system was completed the committee remained as the Traffic Records Committee (TRC). This TRC does not have representation from all traffic safety stakeholders and disciplines that have need for traffic safety information. Its existence is not widely known in the traffic records and traffic safety community. Further this TRC also lacks the authority for adopting requirements that will ensure that there is complete, high quality, and timely data for all users.

### **Recommendations**

- Restructure coordination of traffic records in the Commonwealth. Since management support is necessary, form two levels of coordination: an executive level that has authority and/or support to make changes (possibly the Governor's Coalition for Highway Safety), and a TRC made up of managers, users, and custodians of the Commonwealth's various traffic records systems. The TRC could further be organized into ad hoc subcommittees to address current high priority functions and make recommendations for system development and upgrades.
- Institutionalize the TRC by requiring that appointments be made by the executive level.
- Publicize the existence of the TRC and seek involvement and input from other parties interested in improving the Commonwealth's traffic records.

## 4-B: Strategic Planning

### Advisory

*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 Commonwealth does not have a strategic plan for traffic records as defined by the Advisory. The State Police organized a planning effort during the CRASH development life-cycle. This planning was neither necessarily strategic nor inclusive to all

stakeholders with a vested interest in either highway safety information or the automated systems that capture and provide the data for this enterprise.

There also exists a Governor's Coalition for Highway Safety chaired by the Governor's Office staff that primarily addresses legislative issues. This group was not involved in the planning effort for the CRASH system.

## **Recommendations**

- Create a high-level statewide highway safety oversight and coordinating committee for all of Kentucky's safety programming. The existing Governor's Coalition for Highway Safety may serve this purpose.
- Charge the Highway Safety Branch in the Kentucky State Police with staff responsibilities pertaining to the activities of the statewide highway safety oversight and coordinating committee.
- Create a Traffic Records Committee (TRC) that takes its direction from the statewide safety committee.
- Charge the TRC with the responsibility for strategic planning for the highway safety information needs of all stakeholders with a vested interest in Kentucky's highway safety mission.

## 4-C: Training and Staff Capabilities

### **Advisory**

*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**

It was unclear if a training needs assessment had been conducted for all highway safety professionals involved in program development, management and evaluation. Generally it was reported that training in ECRASH and the use of other specific files was not a problem. Training programs had been conducted at local police training centers, as well as at Kentucky State Police (KSP). The Highway Safety Branch (HSB) did demonstrate a need for its employees to be trained in the manipulation of the crash file. The Kentucky Transportation Cabinet also indicated a need for training in CRASH since a users manual was not documented.

There is no statewide EMS data collection system nor is there a statewide trauma registry. Training for local system user occurs at the local level for both these programs and was not reported to be an issue.

There does not appear to 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 access and use the information to fulfill their needs.

### **Recommendations**

- Provide training for the staff of the HSB in the use of traffic records.
- Charge the Traffic Records Committee with developing a highway safety information marketing and dissemination plan.

## SELECTED REFERENCES

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- Planning and Programming Manual. National Highway Traffic Safety Administration, DOT HS 805 634, November 1980.
- Problem Identification Manual for Traffic Safety Programs. National Highway Traffic Safety Administration, DOT HS 802 084, December 1976.
- Model Minimum Uniform Crash Criteria (MMUCC). National Highway Traffic Safety Administration, DOT HS 808 662, December 1998.
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The Evaluation of Highway Traffic Safety Programs. National Highway Traffic Safety Administration, DOT HS 802 525, February 1978.

Traffic Data Report. International Association of Chiefs of Police and National Highway Traffic Safety Administration, issued annually.

Traffic Safety Summit: Summary of Proceedings. National Highway Traffic Safety Administration, DOT HS 807 561, April 1990.

Traffic Safety Summit II: Summary of Proceedings. National Highway Traffic Safety Administration, DOT HS 807 726, June 1991.

Uniform Pre-Hospital Emergency Medical Services (EMS) Data Conference. National Highway Traffic Safety Administration, May 30, 1994.



## **GLOSSARY OF TERMS AND ACRONYMS**

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

## TEAM CREDENTIALS

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Senior Consultant, Office of International EMS, Center for Emergency Medicine of Western Pennsylvania

### **PREVIOUS EXPERIENCE**

- Senior Program Specialist, Emergency Medical Services, National Highway Traffic Safety Administration. U.S. Department of Transportation (1986 - 1995)
- Director, Emergency Medical Services, National Park Service (1971 - 1986)

### **APPOINTMENTS/POSITIONS**

- Member, Transportation Research Board
- Special Consultant, National EMS Outcomes Research Project
- Board of Directors, Foundation for Aeromedical Research (1989 - present)
- EMS Committee, National Safety Council (1988 - present)
- Rural EMS Committee, National Association of EMS Physicians
- Government Affairs Committee, National Association of EMS Physicians
- Project Director, Steering Committee, National EMS Education and Practice Blueprint
- Project Director, Committee, National EMS Agenda for the Future
- Project Director, Steering Committee, Injury Prevention for EMS Providers

- ❑ Steering Committee, National EMS Alliance (1994)
- ❑ EMS Task Force, National Rural Health Association (1988 - present)

### **CONSULTING ACTIVITIES**

- ❑ President, The EMSSTAR Group, LLC: Current clients include the National Highway Traffic Safety Administration, USDOT; the Health Resources Services Administration, USDHHS; the American Ambulance Association; the State of Colorado, Department of Health, EMS Office; the Center for Emergency Medicine of Pennsylvania
- ❑ Consulting projects include: the conduct of Regional EMS Assessments for the States of Virginia, West Virginia, and Idaho; the conduct of EMS Assessment for the City of Pittsburgh, the County of Milwaukee, American Samoa, and the Kingdom of Saudi Arabia
- ❑ Traffic Records Assessment Team member for the States of West Virginia, Wisconsin, North Dakota, Missouri, Connecticut, Oregon, Tennessee, and Mississippi

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Consultant

### **PROFESSIONAL EXPERIENCE**

- Commander, District III Colorado State Patrol, Retired
- Coordinator/Instructor, Colorado Law Enforcement Training Academy and Colorado State Patrol Academy
- Instructor, Colorado Institute of Law Enforcement Training, Colorado State University
- Law Enforcement Experience - 30 years

### **ORGANIZATIONS/AFFILIATIONS**

- Member, Transportation Research Board, National Academy of Sciences, Law Enforcement Committee
- Chair, Association of Transportation Safety Information Professionals, National Safety Council
- Member, ANSI D-16 Committee on Motor Vehicle Accident Classification
- Member, MMUCC Committee on Motor Vehicle Accident Crash Criteria
- Steering Committee and Chair of Law Enforcement Section, Colorado Safety Management System
- Member, Colorado State Traffic Records Advisory Committee
- Member, National Agenda Committee for Highway Information Systems
- USDOT, NHTSA, Traffic Records Assessment Team Member, Iowa, Nebraska, Louisiana, Kansas, Arizona, South Carolina, New Mexico, Wisconsin, North Dakota, Idaho, Connecticut, Illinois, Oregon, Delaware, New Jersey, Mississippi, San Carlos Indian Nation, and the Menominee Indian Nation.

## **ROBERT A. SCOPATZ, PH.D.**

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Senior Research Scientist, Data Nexus Inc.

### **PROFESSIONAL EXPERIENCE**

- Senior Research Scientist, Data Nexus Inc., College Station, Texas
- Research Scientist, Star Mountain Inc., Alexandria, Virginia
- Director and Acting Assistant Commissioner, New York City DOT, Office of Transportation Analysis
- 17 years research and managerial experience in Transportation Data Analysis

### **ORGANIZATIONS/AFFILIATIONS**

- Member, NCHRP Synthesis Panel; Statistical Methods in Transportation Research; National Academy of Sciences
- Executive Board Member & 2003 Program Chair, Traffic Records Committee, National Safety Council
- Member, Traffic Records Subcommittee and Commercial Vehicle Subcommittee of the Florida Safety Management System Steering Committee
- Newsletter Editor & Member, Statistical Data Analysis Committee; Transportation Research Board, National Academy of Sciences

## **LANGSTON A. (LANG) SPELL**

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Consultant, AAMVAnet

### **PROFESSIONAL EXPERIENCE**

Mr. Spell entered his professional career in traffic records systems and data exchange over 30 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 to AAMVAnet
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>
1953 – 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

## **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**

#### **Current 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.

#### **Recently Completed contracts:**

- 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

## Suggested Additions/Deletions to Draft Copy of Traffic Assessment

**Terry L. Chism Transportation Safety Engineer  
Federal Highway Administration, KY Division**

It appears that the Assessment team had a full week of activities during their short time in Kentucky and they obtained a reasonably good understanding of Kentucky's traffic records. Their comments were timely, well thought out and mostly on target. Their efforts are to be commended. Being the only person who has been working on traffic records in Kentucky since the last Records Assessment (1993) and having hosted over 90% of the meetings on traffic records, CRASH or CODES, I have a broad, long term, historic perspective on where we have come from and some insight on perhaps the direction we should be going. Because of this prospective, I am providing some general comments, page specific comments and comments on the Executive Summary:

### **General Comments:**

Knowing the importance of Citation and Adjudication information for a complete Traffic Records System, the FHWA is greatly disappointed with the reports that after extended efforts by the Assessment Team, the Administrative Office of the Courts (AOC) declined to participate in the Traffic Records Assessment.

It was noted on page 4 that only one individual was interviewed from the Kentucky Transportation Cabinet (KYTC) – “Department of Highways” (DoH). That individual was Boyd Sigler, from the Division of Traffic. Mr. Sigler does have a good general knowledge of how the DoH utilizes traffic records and if the Assessment Team was only going to interview one, he would have been my choice. However, since the DoH is possibly the largest single user of data from the CRASH System and are the custodian's of the “Roadway Information,” I would have recommended adding additional interviews with representatives from the Division of Planning and the Division of Design. Additionally, the KYTC Office of Technology, who has responsibility for all computer systems in the KYTC, could have been interviewed.

Early on in the development of CRASH (1993) it was decided that collision data collection is only useful if that data is going to be easily available for enforcement, engineering and other users to analyze in order to reduce collisions. CRASH provides good data and we need to be utilizing this tool more. I think one of the recommendations in the **Executive Summary, Crash Data** section should be –“Make the availability of the CRASH database more widely known and provide training in how to access and utilize the CRASH database.” This is somewhat addressed on page 13, 44. Please see my page specific comments on these pages.

The above are general comments not requiring any change to report.

### **Page specific comments:**

Page 4 Michael Singleton personal information appears incorrect. Mr. Singleton is the “CODES Coordinator” and works for the “Kentucky Injury Prevention and Research Center” Correction made

Page 5 **Methodology** Please remove “the FHWA Division Office, FMCSA” from the second sentence and “FMCSA, and FHWA” from the last sentence. (Done) Please add an additional sentence stating, “Except for the Close Out Session on Friday, FHWA nor FMCSA were invited to participate in this assessment.” (Not appropriate)

Page 13 **Recommendations**, first item. “Make the unsecured data extract of CRASH information available via the KSP website for download. The KSP would encourage broader use of their data by making these data available, and it might even reduce the number of analytic requests it has to handle directly.” The CRASH database will only fulfill its mission if it is utilized to reduce crashes, I therefore recommend expanding this item to include: “Increase the knowledge of the existence of the CRASH database through marketing to the enforcement community, and public entities including cities and Area Development Districts and provide training on how to access and retrieve information from the database.” Recommend adding a statement in the **Executive Summary, Crash Data** section concerning increasing the knowledge of the existence of the CRASH database and providing training on accessing and retrieving data from CRASH.

This is similar to the suggested change for p. 44 which has been added.

Page 15 **Recommendations**. These are two outstanding recommendations which merit strong consideration for inclusion in the Executive Summary, under **Management and Coordination**. These were “Establish a Transportation Cabinet Safety Management Committee to oversee all agency highway safety information needs and coordinate the safety programs of the agency. (and) Provide data, training, and analytic support to local agencies in using the CRASH and HIS files for local safety programs, especially in the Area Development Districts.”

Items for inclusion in the Executive Summary were arrived through Team consensus. This is a judgment call – the state may change if it wishes

Page 35 **Recommendations**. These are excellent recommendations on which the KYTC should be encouraged to act. No change required.

Page 41 It is discouraging that the Administrative Office of the Courts declined to participate in the Records Assessment. The last **Recommendation** “Request the Governor’s Representative for Highway Safety to explain to AOC the benefit of their

cooperation in meeting the needs of all traffic safety stakeholders,” is extremely important and if this office can be of any assistance we are willing to participate.

No change required

Page 44 The draft Assessment states “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.” CRASH is a very good system. To be in accord with the draft Assessment statement, the availability of the CRASH database needs to be marketed and training in how to access and utilize the CRASH database needs to be provided. Consideration should be given to adding such a statement to the **Recommendations** somewhere in Section 3.

Changes made to Section 1-A, p. 13

Page 45 **Status** – second paragraph, the draft assessment states “The HSB is not organizationally positioned to have sufficient authority or power to direct the development and integration of data systems. The office is several organizational levels down from the Governor’s Highway Safety Representative (the Commissioner of the Kentucky State Police).” In order to have a greater role in helping direct the development and integration of data systems it would appear to be very helpful if the HSB was directly under the Commissioner. Additionally, the HSB must have the staff time to become a more active member of the Traffic Records Committee, more than primarily a funding mechanism.

No change required

Page 46 the first **Recommendation** states “Elevate the Highway Safety Branch into an Office of Highway Safety reporting directly to the Governor’s Representative for Highway Safety. Empower that office to select, implement, manage, and evaluate Kentucky highway safety programs under the authority and direction of the Governor’s Representative for Highway Safety.” I concur in the first sentence. For clarification purposes in the second sentence, I must ask, does the Assessment team mean “Kentucky highway safety programs” or “Kentucky highway safety data?” If the team is directing this recommendation to “Kentucky highway safety data”, elevating the HSB within the KSP should be very beneficial in giving it a stronger leadership role. If the team is directing this comment to “Kentucky highway safety programs” it should be noted that the Governor’s Representative for Highway Safety in Kentucky is responsible for the NHTSA 402 Safety Programs and is not responsible for the “highway” or “engineering” FHWA funded highway safety programs within the Kentucky Transportation Cabinet. This distinction “must” clearly be made on page 46 and within the second **Recommendation** under **Management and Coordination** in the **Executive Summary** on page 2.

Changes noted

## Executive Summary

The **Executive Summary** is extremely important since this is the only section that will be read by most of the reviewers, especially management. For that reason, the items listed therein must be clear and accurate. Therefore please assure that the concerns listed under page 46 is clearly addressed in the **Executive Summary**.  
Changes noted on p. 2 and p. 46.