



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**



DOT HS 811 489

July 2011

Model Impaired Driving Records Information Systems – Tying Together Data Systems to Manage Impaired Drivers

DISCLAIMER

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade names, manufacturers' names, or specific products are mentioned, it is because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Technical Report Documentation Page

1. Report No. DOT HS 811 489	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Model Impaired Driving Records Information Systems Tying Together Data Systems to Manage Impaired Drivers		5. Report Date July 2011	
		6. Performing Organization Code	
7. Author(s) Pamela Greer		8. Performing Organization Report No.	
9. Performing Organization Name and Address Cambridge Systematics, Inc. 4800 Hampden Lane, Suite 800 Bethesda, Maryland 20814		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. DTRTAC-07-P-00076	
12. Sponsoring Agency Name and Address Office of Impaired Driving and Occupant Protection National Highway Traffic Safety Administration 1200 New Jersey Avenue SE. Washington, DC 20590		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code	
15. Supplementary Notes J. DeCarlo Ciccel was the Contracting Officer's Technical Representative for this project.			
16. Abstract <p>In 2002, the National Highway Traffic Safety Administration conducted a demonstration project named the Model Impaired Driving Records Information System (MIDRIS) to document how States could further improve and expand existing data systems. In addition to funding, NHTSA provided ongoing support and guidance on the components of MIDRIS, and recommended implementation steps.</p> <p>In 1997, NHTSA published Driving While Intoxicated Tracking Systems (DOT 808 520) to focus attention on impaired driving data and the benefits a comprehensive data tracking system could provide to States and localities working to prevent the problem. Since that time most States implemented some components of the system, but few connected the dots and linked critical data elements from three key stake holders – law enforcement, State driver's licensing agencies, and the courts.</p> <p>Four States were selected for the demonstration, Alabama, Iowa, Nebraska, and Wisconsin. Each of the pilot States had made progress on a MIDRIS prior to their selection and used the NHTSA support to make enhancements and improvements. This report documents the experience of the four States and highlights the best practices achieved through NHTSA's support. The report also provides examples of how these States made system-wide improvements in areas that until recently seemed too costly or complicated to implement.</p>			
17. Key Words Impaired Driving, Data, Traffic Records, Citation, Law Enforcement, Adjudication, Driving While Intoxicated (DWI), Model Impaired Driver Records Information System (MIDRIS), data dictionary		18. Distribution Statement Document is available to the public from the National Technical Information Service www.ntis.gov	
19. Security Classification (of this report) Unclassified	20. Security Classification (of this page) Unclassified	21 No. of Pages 36	22. Price

Reproduction of completed page authorized

Table of Contents

Executive Summary	1
Background.....	3
MIDRIS	4
Demonstration State Case Studies	8
Alabama	9
Overview	9
Project Goals and Objectives	9
Accomplishments.....	9
Lessons Learned	12
Iowa.....	13
Overview	13
Project Goals and Objectives	13
Accomplishments.....	14
Lessons Learned	16
Nebraska.....	17
Overview	17
Project Goals and Objectives	18
Accomplishments.....	18
Lessons Learned	20
Wisconsin	21
Overview	21
Project Goals and Objectives	22
Accomplishments.....	22
Lessons Learned	24
Implementation Steps	25

List of Figures

Figure 1. Stakeholders as Data Owners and Data Users	7
Figure 2. The Impaired Driving Critical Path	8
Figure 3. Alabama Critical Path.....	12
Figure 4. Iowa Critical Path	16
Figure 5. Nebraska E-Citation Pathway.....	19
Figure 6. Wisconsin Critical Path.....	24

List of Tables

Table 1. Pilot Model Components	6
---------------------------------------	---

Executive Summary

In 1997, the National Highway Traffic Safety Administration published *Driving While Intoxicated Tracking Systems* to focus attention on impaired driving data and the benefits a comprehensive data tracking system could provide to States and localities working to prevent the problem. Since that time, most States have implemented some components of the system, but few have “connected the dots” and linked critical data elements from three key stakeholders – law enforcement, State driver licensing agencies, and the courts. In 2001, NHTSA conducted a demonstration project named the *Model Impaired Driving Records Information System* (MIDRIS) to document how States could further improve and expand existing systems. In addition to funding, NHTSA provided ongoing support and guidance on the components of a MIDRIS, and recommended implementation steps (*Guidelines for Impaired Driving Records Information Systems*, 2006). Each demonstration State had made some initial progress on a MIDRIS prior to its selection and used the NHTSA support to make enhancements and improvements.

Four States were selected in 2002 for the demonstration, Alabama, Iowa, Nebraska, and Wisconsin; Connecticut was added in 2004. This report documents the experience of the four States and highlights the best practices achieved through NHTSA's support. The report also provides examples of how these States made system wide improvements in areas that, until recently, seemed too costly or complicated to implement.

In 2007, as a follow-up to the Federal Register posting, NHTSA began the process of creating MIDRIS to address types and formats of data in the form of a data dictionary for a comprehensive statewide impaired driving records information system (*Data Dictionary*, 2010). Several resources of using the MIDRIS data dictionary such as the data element summary and inventory spreadsheet are available on the MIDRIS website (<http://www.nhtsa-tsis.net/MIDRIS/resources.htm>).

Alabama developed MIDAS, the Model Impaired Driving Access System, to provide a statewide system to identify, charge, and sanction impaired-driving offenders based on their driving history. To accomplish this goal, the State used its court referral officers (CROs) and expanded, through e-citation, the available information to include criminal records and driver histories. Alabama also developed a standardized court referral program that would alert CROs when anything changed with the defendant, including any additional offenses.

Iowa had many of the elements of MIDRIS prior to selection and used NHTSA support to fill in the gaps in its existing system. These enhancements included integrating driver and vehicle data into Traffic and Criminal Software (TraCS); driving while impaired (DWI) reports that could be populated at the roadside or processing center; a seamless transfer of data from the Datamaster evidentiary breath testing device; on-line substance abuse evaluation and treatment information reporting; and modifications to the Office of Driver Services Imaging System. Iowa developed a package of electronic DWI reports through outreach to law enforcement, prosecutors, and judges.

The Nebraska project focused on linking and tracking data across existing systems, data integration, timely access by all stakeholders, and flexibility to incorporate additional data, e.g., probation, criminal history, and driver-related data. The system was built on existing projects and plans that helped leverage efforts being undertaken by other agencies. Nebraska's accom-

plishments included enhanced search methods to quickly identify offenders; real-time access to warrant data for apprehension and case review; additional information on arrests and dispositions in the criminal history file; the availability of driver's license photos for use by law enforcement; the development of a citation database that included identification and tracking functions; and probation officer notification when offenders commit additional offenses during the probation or pre-trial period. These accomplishments enabled Nebraska to address previous deficiencies including a lack of data linkages, timely data, uniformity and accuracy, and automated prosecution data.

Wisconsin used information gained through a 1999 Traffic Records Assessment to identify the programs and systems that required improvement. NHTSA support was used to improve overall system functionality and provide greater access across diverse systems. This was accomplished by partners agreeing on the types and definitions of data to be collected and stored. This increased functionality also resulted in an interface with the record management systems of local governments. A unique accomplishment in Wisconsin was a search function that enables law enforcement officers to search through State statutes, which improved accuracy at the time of arrest and the likelihood of court sanctioning. Other accomplishments from the Wisconsin project included real-time access for the courts and Department of Motor Vehicles (DMV), dispositions electronically transmitted to the DMV, integration with the alcohol/drug arrest system, and chemical test results tracking.

NHTSA developed guidelines for impaired driving records information systems that are published in the Federal Register, Vol. 71, No. 168, pp. 51665-72. The guidelines describe recommended steps to implementing MIDRIS. Each demonstration State followed the guidance and adapted them.

Background

One of the most pressing problems facing traffic safety practitioners at the Federal, State, and local levels is impaired driving. After substantial reductions in the 1980s and early 1990s, progress in reducing the number of alcohol-impaired driving crashes, fatalities, and serious injuries has been more modest since then. A driver is considered to be alcohol-impaired when the driver's blood alcohol concentration (BAC) is .08 grams per deciliter (g/dL) or higher. Thus, any fatality occurring in a crash involving a driver with a BAC of .08 or higher is considered to be an alcohol-impaired-driving fatality. When those figures are combined with approximately 1.4 million people who are arrested each year for DWI, it is clear alcohol continues to be a major problem on the Nation's roadways and a problem for agencies charged with protecting public safety. The primary responsibility for dealing with this problem rests with States, which enact and enforce impaired driving laws and adjudicate and sanction impaired-driving offenders.

States typically tackle this problem from legislative and programmatic perspectives, passing tougher laws with stiffer penalties, implementing high-visibility enforcement initiatives, and other countermeasures. As with any highway safety problem, a critical element is the ability to determine the exact nature and extent of the problem. Timely, consistent, complete, accurate, accessible, and integrated data are the cornerstones of any successful highway safety program. A focus on impaired driving can move a State further along the data improvement highway because impaired driving directly involves the three key sources of highway safety data – law enforcement, the courts, and driver licensing agencies. Successful integration of data from these sources is the framework to improve the way States manage data and measure the effectiveness of safety programs.

The Benefits of MIDRIS

A comprehensive Model Impaired Driving Records Information System gives States the information they need to make informed decisions. It is a critical management tool vital for the development and implementation of effective prevention, deterrence, and intervention programs to ensure that dangerous drivers are removed from and remain off the road.

Without a comprehensive approach, offenders are not charged or sentenced appropriately because law enforcement officers, prosecutors, and judges do not have access to the individual's driving or criminal history. This lack of critical information can plague the impaired driving community and create gaps in the DWI system.

MIDRIS addresses a lack of follow up information. A necessary component for a successful impaired driving prevention program is the likelihood an individual will be caught and properly prosecuted. In some cases, law enforcement officers, prosecutors, and judges may not even know if individuals have completed their sentences. A system that does not provide adequate or timely information about offenders to law enforcement officers, prosecutors, judges, and probation officers and others seriously undermines the integrity of the criminal justice system and the deterrent effect of sanctions. It weakens the effectiveness of impaired driving programs and the millions of dollars that are spent to conduct these programs each year. An inadequate traffic records system places additional administrative burdens on already over-burdened agencies that must track, often manually, impaired-driving cases from arrest through prosecution, adjudication, and disposition. MIDRIS is designed to address deficiencies and bring substantial benefits including the following:

- Charge and sentence offenders appropriately, based on their driving histories;
- Manage impaired driving cases from arrest through completion of court and administrative sanctions;
- Identify populations, trends, and problematic components of the overall impaired driving control system;
- Adequately gauge DWI trends and the effectiveness of a range of education, information, enforcement, legislative, and other countermeasures;
- Provide stakeholders with adequate and timely information to fulfill their responsibilities;
- Provide key decision-makers (law enforcement, DMV, prosecutors, judges, etc.) with adequate and timely information to allow equitable imposition of charges and penalties; and
- Reduce the administrative burden on system stakeholders and improve efficiency while increasing the punitive nature of State laws and processes.

Demonstration Projects

Impaired driving data is complex because it involves information from three separate data sources – arrest information from law enforcement agencies, driver license and vehicle data from State driver licensing agencies, and prosecution and adjudication information from the courts. To address this issue, NHTSA published *Driving While Intoxicated Tracking Systems* in 1997, which laid the foundation for a comprehensive approach and cited the importance of these key stakeholders to the overall success of the system (NHTSA, 1997a). A study was conducted as part of the effort to determine the extent States maintained DWI tracking systems. Seven States were selected for further study and a report documenting their approach was published (NHTSA, 1997b).

Since that time, most States have implemented some of the components of a comprehensive system, but few have linked those elements into an integrated system that tracks the identification, prosecution, and adjudication of alcohol-impaired or drug-impaired drivers from the roadside to release. In 2001, NHTSA joined with States and with other Federal agencies to expand the framework of the DWI tracking system and provide additional management and evaluation tools. NHTSA solicited participation in a demonstration project to document how States could further improve and expand existing systems to monitor impaired drivers. The model presumes there will never be sufficient funds to “start from scratch” so it is essential to determine how existing systems could be used to achieve a model system.

Four States were selected in 2002 for the demonstration – Alabama, Iowa, Nebraska, and Wisconsin; Connecticut was added in 2004. This report documents the experience of the four States and highlights some of their best practices achieved through NHTSA's support. The report also provides examples of how these States made system wide improvements in areas that, until recently, seemed too costly or complicated to implement.

MIDRIS

The purpose of MIDRIS is to effectively manage DWI information from arrest through sanction completion and/or license reinstatement. A model system allows States to generate, transmit,

store, update, link, manage, analyze, and report information on impaired driving offenders and citations. Specific components of MIDRIS include the following:

- *Statewide coverage, e.g., involvement and participation by the State driver's licensing agency, all law enforcement agencies, and all courts that adjudicate impaired-driving cases;*
- *Real-time electronic access for law enforcement and courts to license history, vehicle registration status, criminal history, and warrants;*

MIDRIS Components

- **Statewide coverage**
- **E-citation and citation tracking system**
- **Electronic data transmission**
- **Electronic reports**
- **Information linkage**
- **Timely access**
- **Flexibility**
- **National standards conformity**

- *An electronic citation system for use by law enforcement officers at the roadside or police station with bar codes, magnetic striping, or other automatic data capture technologies as well as standard legal (consent) forms;*

- *A citation tracking system to accept electronic citation data from law enforcement agencies. The system should provide real-time tracking and accountability from when the citation is issued by the law enforcement officer; through the court adjudication process; and to the imposition and completion of court and administrative sanctions. To make the process easier, the system should include an offender citation number or other unique identifier, and on-line access for stakeholders;*

- *Electronic transmission of data from law enforcement agencies and courts to the driver's State licensing agency that permits immediate and automatic imposition of administrative sanctions (if applicable), and the recording of convictions on the driver's license;*
- *Electronic reports to the courts and the State licensing agency by probation, treatment, or correctional agencies, as applicable, including information on compliance or non-compliance with court or administrative sanctions;*
- *Linkage of information from the incident- or case-based tracking system and driver- or offender-based system including treatment and probation data to create a complete record for each offender;*
- *Timely access by all stakeholders, including the State Highway Safety Office, to periodic statistical reports that support agency operations, problem identification, and policy development, and manage the impaired-driving programs system, and countermeasure evaluation;*
- *Flexibility to include additional data and technological innovations; and*
- *Conformity with national standards such as the American National Standards Institute (ANSI) and National Information Exchange Model (NIEM).*

MIDRIS:

- Is a concept for providing a centralized point-of-access for impaired-driving information from the time of a road-side stop through adjudication and sanction and rehabilitation phase that are posted into the driver history files;
- Is a starting point or tool for States to use when planning an impaired driver tracking system; and
- Contains a data dictionary of candidate elements and data codes that might be found within such a system.

The data dictionary represents a consensus document that was developed with the input and guidance of the demonstration States, NHTSA, Federal Motor Carrier Safety Administration, Federal Highway Administration, Department of Justice, Association of Transportation Safety Information System Professionals, and State and local traffic safety information systems representatives. It draws upon existing standards such as ANSI D.20, Model Minimum Uniform Crash Criteria, NIEM, the Commercial Driver’s License Information System, and the Traffic Citation Information Exchange Package Documentation. Where ever possible accepted standard code tables and data element definitions have been used in this document.

Table 1 shows how each demonstration State addressed the recommended components of MIDRIS including those elements before the project and those added or enhanced during the project.

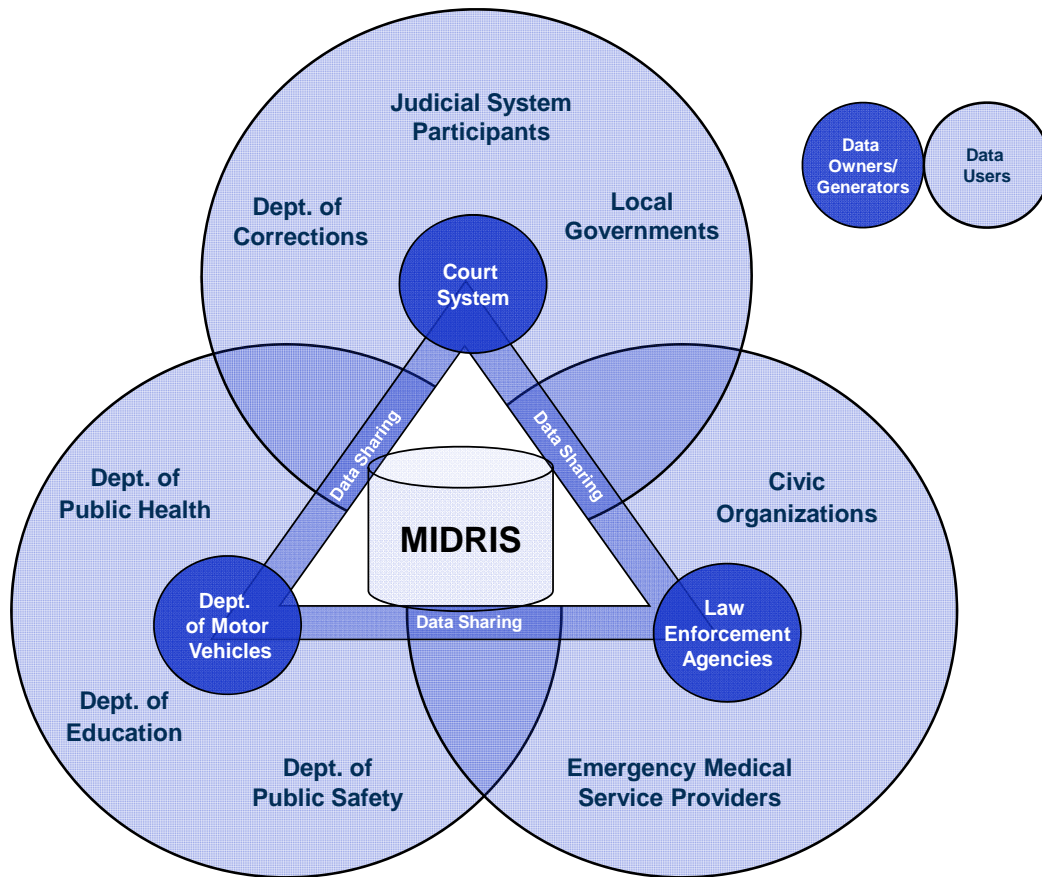
Table 1. Demonstration State MIDRIS Components

Component	In Place Before Project				Added or Enhanced During Project			
	AL	IA	NE	WI	AL	IA	NE	WI
Statewide Coverage	X	X	X	X				
Real-Time Access		X	X	X	X		X+	X+
Electronic Citation	X	X		X		X+	X	X+
Citation Tracking				X	X	X	X	X+
Electronic Transmission	X		X	X		X	X+	
Electronic Reports		X			X		X	X
Information Linkage				X	X	X	X	X+
Timely Access		X		X	X	X+	X	X+
Flexibility		X		X	X		X	
Conformity		X		X				

X+ - Indicates the State enhanced the existing system during project implementation.

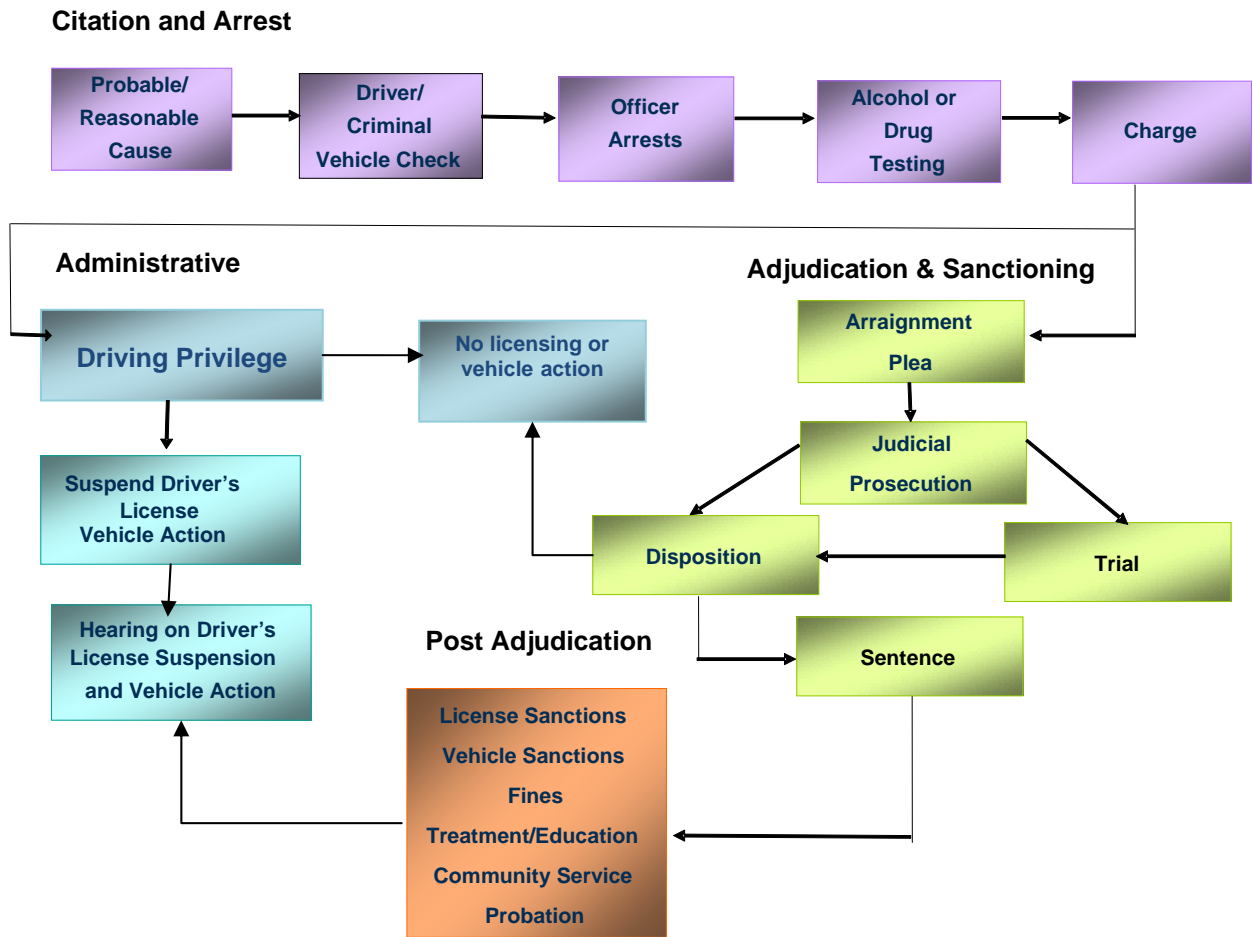
MIDRIS is possible only with a group of key stakeholders who can be divided into two groups: primarily data owners/generators, and data users. Data owners/generators are agencies (law enforcement, State driver licensing agency, and the courts) that operate at the front end of data collection and are generally responsible for the storage of and access to the data. Data users are agencies that need the data to manage and improve public safety, such as State Highway Safety Offices, local government agencies, emergency medical service providers, departments of health and corrections, etc. Figure 1 illustrates the interaction between these two sets of stakeholders.

Figure 1. Stakeholders Data Owners/Generators and Data Users



All States, Territories, and the District of Columbia have impaired driving laws and regulations, organizational structures, and court systems. Despite the differences among all these jurisdictions, an impaired driving offense follows a similar critical path that begins with a citation and arrest followed by adjudication and sanctioning action by the court, licensing actions by the licensing agency, and any post-adjudication sanctions that must be followed by the offender, as illustrated in Figure 2.

Figure 2. The Impaired Driving Critical Path



Demonstration State Case Studies

Following is a synopsis of how each State moved forward on MIDRIS, including an overview of the project, goals, and objectives, and what was accomplished. In conducting the demonstration, NHTSA was testing whether States could take existing systems and improve them to more closely resemble the model approach. To varying degrees, each demonstration State met that goal.

Alabama

Overview

Alabama named its project MIDAS (Model Impaired Driving Access System), and made it a component of the larger Law Enforcement Tactical System (LETS). The State wanted MIDAS data to be used for both administrative and investigative tasks, two functions that had not been successfully integrated in the past. The Law Enforcement System Integration and Standards Board (LESIS) served as the lead agency. LESIS was created by the Governor in 2000 to promote greater efficiency and economy in the criminal justice system, improve productivity, and address data sharing. The LESIS Strategic Plan addressed some of the issues critical to the success of Alabama's impaired driving project, including the need for timely, accurate, and complete data on offenders; the development of standards to promote information sharing through compatibility, interoperability, and integration; reductions in redundant data collection; and elimination of paper-based processing.

Project Goals and Objectives

The major goal of MIDAS was to develop a statewide system to allow all jurisdictions to identify, charge, and sanction impaired driving offenders based on their driving history. This would require full automation of the CRO system to facilitate integration with the citation and driver records systems enabling users to summarize data and compare subsets on a dynamic, user-defined basis. The expanded function also would provide a capability to identify target populations and trends, and help determine the relationship between the sanctions imposed and recidivism. Key objectives for MIDAS included the following:

- Automate elements of the DWI tracking system.

Prior to the NHTSA project, impaired-driving citations were processed manually by local law enforcement agencies. All district and circuit courts were automated, but only about 25% of municipal courts were automated. Information for the criminal history file also was primarily entered manually, which made the timeliness and completeness of the data problematic. The CRO system maintained case files on offenders, including data on treatment, sanctions, and defendant response, but only 30% were automated. The only statewide computerized records were the driver history and arrest records, which were available indirectly to law enforcement and the referral officers. Citation information and offender tracking were separate processes that interacted only when CROs accessed court records.

- Integrate driver history, arrest records, and criminal histories into the statewide accessible LETS system.
- Link new databases with information features currently available in the State's Critical Analysis Reporting Environment (CARE) system.

MIDAS was designed to integrate data from CARE with the additional comprehensive impaired driving databases and improve the decision-making process for CROs who would have access to other data for operational purposes. The information would be available also to courts to help them make appropriate sentencing and sanctioning decisions.

Accomplishments

Alabama's impaired driving records system project provided an immediate statewide, real-time electronic tracking system for each impaired driving offender from arrest to disposition.

MIDAS

The Alabama MIDAS program became a statewide virtual office for CROs, who exist in all Alabama courts and are tasked with performing pre-sentence investigations for alcohol and drug abuse cases and monitoring the progress of defendants as they move through the system. MIDAS enabled these CROs to view past records on any defendant, not only those generated by MIDAS, but those generated by other criminal justice systems such as criminal records or driver histories. MIDAS includes the following components:

- Community Correction;
- Court Referral;
- Treatment Courts;
- County Probation;
- Jail/Prison Diversion; and
- Pre-Trial Information.

These components are available on the MIDAS dashboard, which has the capability for users to migrate between these separate components as well as various screen functions in the system. The dashboard approach was beneficial because it standardized business practices. A training manual was developed and made available on-line to CROs and through hands-on training, if necessary.

Integrated e-citation into MIDAS

Integrating the e-citation into the MIDAS system was the key to providing immediate statewide, real-time electronic tracking of each impaired driving offender from arrest to disposition. The e-citation was developed by the CARE Research and Development Laboratory at the University of Alabama and conducted in two phases. The first phase involved a pilot program at trucking way stations where State troopers used laptops to input data directly into the e-citation system, and used bar code scanners to automatically populate driver's license data onto the e-citation form. The scanning function also allowed for manual updates if the information on the license was obsolete.

Troopers were able to print out citations while the data was automatically submitted in real-time to a server at the Administrative Office of Courts (AOC) that was in turn uploaded to the AOC mainframe. Court clerks then had the ability to view the citation immediately after issuance. In phase two, troopers used wireless cards in laptops so that citations could be transmitted from any location. If a squad car was not within range of a wireless signal, the citation information was stored until a signal was established.

Alabama Accomplishments
▪ Improved pre-sentence investigations
▪ Improved monitoring of defendants
▪ Simplified data entry
▪ Standardization of business practices
▪ Real-time electronic tracking of offenders from arrest through disposition
▪ Eased migration between databases
▪ Import past driver and criminal history

All e-citation tickets were linked to MIDAS, the central DWI tracking system. As of 2007, there were approximately 70 troopers using the e-citation system, and in 2006 the Alabama Department of Transportation allocated funding for an additional 30 State troopers to use the system. Over 25,000 citations were issued in 2005, comprising 7% of the total citations issued. In addition to Alabama's State police agency, the Tuscaloosa Police Department adopted e-citation, and other local and State entities explored funding sources to increase coverage of this system.

Standardized court referral information and court functional standards

CROs can now access all of the AOC criminal, pardon, and parole records through MIDAS. An automatic notification process alerts users when anything changes with a defendant including the following options:

- Personal demographic changes, e.g., physical attributes, address, phone number, deceased status;
- Criminal record changes, e.g., new cases entered into the State Court System, cases currently being prosecuted by district attorneys; and
- Alabama Criminal Justice Information Center (ACJIC) alerts, e.g., if another law enforcement agency in the United States downloads a defendant's National Crime Information Center (NCIC) criminal history.

Automatic search capabilities for the intake function allow CROs to search by name for the defendant to determine past history and to import the defendant's information from any existing file into MIDAS, which eliminated a duplication of data and associated errors. The intake function included drop-down boxes that simplified data entry. Integration of defendant case records provided access to information from multiple jurisdictions, and removed the potential for redundant services and misplacement of the defendant into an improper level.

Included alcohol and drug assessment information

The AOC designed its alcohol and drug assessment tool to be compatible with the needs of CROs. Adult defendants were given a 55-question survey and minors were given a 75-question version. The new assessment tool was shorter than the previous version and used a multiple-choice format that facilitated the coding process and standardized responses.

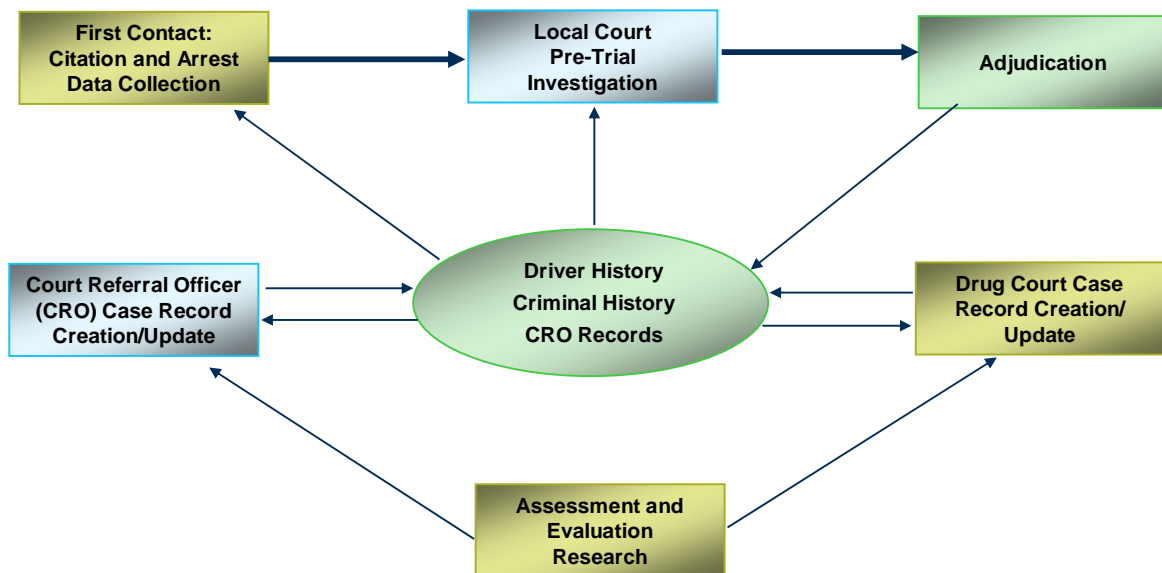
The assessment tool, which was compatible with MIDAS, provided an analysis of the level of treatment the defendant was required to complete. Unlike the previous version, which was a privately developed instrument that charged a per-use fee, the updated assessment did not charge the State, saving approximately \$100,000 per year. Drug test results were also maintained on MIDAS for each defendant, and a MIDAS e-mail capability allowed a notification to treatment providers of a defendant's progress.

The financial screens in MIDAS contain information on the defendant's payment history, outstanding fees, and any new fees that may be incurred. It also prints out receipts for any payment made to the CRO by the defendant. MIDAS is capable of generating reports including payments deposited, caseload, non-active status, appointments, rosters by judge, rosters by arrest date, drug test reports, completion certificates, reschedules, initial evaluations, progress reports, case management, and release forms.

Improved critical path

Alabama's involvement in the NHTSA demonstration project resulted in improvements to the DWI critical path as illustrated in Figure 3. Information from the officer at the time of arrest was automatically sent to the local court to be used in the pre-trial investigation while at the same time information on the individual's driver and criminal histories and any CRO records were available to the officer at the time of arrest. As shown, the system was designed to be interactive with information flowing to and from critical data sources.

Figure 3. Alabama Critical Path



Lessons Learned

- Use in-house capabilities with existing software.

Alabama used a rapid prototype design and development process. The rapid prototype process captures features from existing software components, which reduces developmental costs as did using the expertise and computer resources subcontracted at the University of Alabama's College of Engineering; hence the software is owned by the State, which enables rapid prototyping without problems of copyrights and license fees.

The MIDAS system has generic applicability in that it uses the Microsoft Operating System and was developed using .NET capabilities. This Web-based system enables central updates, eliminating the need for onsite updates that ensure all the CROs are using the same version of the MIDAS software at any given time, further standardizing business practices.

Iowa

Overview

Iowa had a number of MIDRIS elements prior to their selection as a pilot project. Statewide coverage in Iowa was achieved through participation by the DMV, the courts, and all law enforcement agencies with the Department of Transportation heading up the project as lead agency. The TraCS data collection and reporting tool are widely deployed by over 200 law enforcement agencies throughout the State. All law enforcement agencies use a uniform traffic citation, and the driver history, license status, and vehicle registration information was available to officers at the roadside via the Department of Public Safety's Iowa Online Warrants and Articles (IOWA) system, which covered 218 law enforcement agencies. Electronic citations were available to all TraCS users and deployed in every county. At the time of the demonstration project 17% of citations being completed were sent to the courts electronically.

The access to driver history, license, and vehicle registration status was near real-time. Criminal history and current court/adjudication status was updated daily through Criminal Justice Information Network, and historical data was available statewide through the Justice Data Warehouse (JDW) that allowed users to track past citations by either violator's name or case identifiers. Driver license information was available through the DMV. The immediate electronic transmission of data from enforcement agencies to the driver history system ensured that immediate and automatic administrative sanctions were applied.

The Iowa Court Information System (ICIS), a statewide, unified court information management system, allowed all court information including DWI to be managed consistently. Criminal justice information, including probation records, was likewise managed through the JDW, which served as a single-source, all-encompassing database to receive impaired driver information and produce statistical reports. Both the ICIS and the JDW were available in every county, and the Uniform Court System, which integrated all courts into one system, was in place. Probation data was available through the Criminal Justice Information Network.

Project Goals and Objectives

The design of Iowa's system focused on filling the gaps in the existing system rather than on the design and development of something new. Objectives for the Iowa project included the following:

- Enhance the TraCS system to allow for a more seamless transfer of data and enhancements to ICIS to allow electronic reporting of DWI convictions to the Office of Driver Services.

At the beginning of the project, TraCS data was captured manually via computer keyboard or stylus. Iowa also proposed to enhance ICIS to allow electronic reporting of DWI convictions to the Office of Driver Services when filed in a formal complaint.

- Provide for the electronic filing of DWI formal complaints from law enforcement officer to the prosecutor and to the court that had been a critical missing element in Iowa's DWI tracking system.

In most Iowa counties, it was a requirement to file a preliminary DWI form with the prosecuting attorney before a formal charge of DWI could be filed with the court. This process was paper-based, time-consuming, and error-prone. The paper-based system that transferred data from the courts to Driver Services took from three days to one month between the date of conviction, posting to the offender's driver history, and initiation of the revocation action. Evaluation and treatment facilities were also sending paper reports to the DMV. It was the responsibility of the offender to provide probation information to the DMV.

- Pilot statewide mobile data communications via satellite with Department of Public Safety, Department of Transportation, one or more county sheriffs, and local police departments.

This interoperability function was important in States such as Iowa, where officers often work in geographically remote and widely distributed areas.

- Modify the Office of Driver Services document imaging system application to enhance the agency's ability to manage electronically generated and transmitted DWI arrest and consent forms.

This improvement was designed to eliminate the manual scanning of DWI implied consent and arrest forms at the DOT, thereby increasing accuracy and reducing processing time for law enforcement officers, arresting agency staff, and the DOT.

Accomplishments

Improved data integration and linkage

Integration of TraCS and a mobile data function allowed law enforcement officers to scan or swipe bar codes and magnetic strips containing driver's license and vehicle registration information data and populate DWI reports and implied consent forms at the roadside or processing center that improved data quality and officer efficiency. Iowa also linked TraCS and DWI arrest information to the central repository that informed law enforcement officers of recent citations, warnings, and DWI contacts, and the status of the individual with the Department of Corrections and the local jail booking system. The data was then transferred to the JDW for storage and tracking purposes. With initial contacts stored in a central location, final disposition could be compared, thereby identifying where case leakage occurred. The purchase of computers in DWI processing centers also provided a seamless transfer of data to the Datamaster evidentiary breath testing device in each county where test results were stored. The enhancement reduced processing time, improved accuracy, helped make officer responses to questions in the TraCS software more accurate, and facilitated future integration with jail booking systems.

Enhanced DWI processing through electronic filing

A missing element in Iowa's DWI tracking system was the ability of officers to electronically file DWI formal complaints with the prosecutor. During the NHTSA pilot, Iowa worked with law enforcement, prosecuting attorneys, the vendor for the prosecuting attorney's case management system, and the judges in the pilot counties and discovered there was little consistency in the way DWI paperwork was handled. Although most law enforcement agencies collected similar data elements, the formats were different, the amount of information provided to the prosecuting attorney prior the initial court appearance varied, and there was no consistency between

which entity created the complaint and the affidavit. Initially, Iowa planned to create electronic formats for the complaint and affidavit along with the implied consent forms. Law enforcement and prosecuting attorneys, however, expressed the need for all reports to be connected either by paper or electronically, which resulted in a package of electronic DWI reports including the following:

- Implied Consent;
- Complaint and Affidavit;
- DWI Interview;
- Field Intoxication;
- Laboratory Receipt (for evidence);
- Independent Chemical Test Advisory;
- Miranda Rights;
- Incident Report; and
- Arrest Report.

During the project, Iowa found electronic filing with courts was a major challenge even though traffic citation information had been sent to the courts electronically for years. The courts piloted electronic filing in two counties in the fall of 2007 and expanded to others in 2008. The electronic reporting of DWI convictions to the Office of Driver Services also eliminated the paper processing delays between the date of conviction, posting to the driver history record, and the initiation of revocation action.

Iowa Accomplishments
<ul style="list-style-type: none">▪ Integration of TraCS and mobile data function.▪ DWI reports populated at roadside or arresting center.▪ Improved data quality▪ Improved law enforcement efficiency.▪ Seamless transfer of data to Datamaster evidentiary breath testing device.▪ Available driver and criminal history information.▪ On-line reporting of substance abuse evaluation and treatment information.

Developed data standards

The CJIS Advisory Committee developed a plan to implement an integrated system with TraCS as the common tool for Iowa's law enforcement criminal data collection. Determining how the data would move from law enforcement agencies to prosecuting attorneys resulted in data standards that required all data exchanges to occur through a central data broker that would receive all criminal related data and manage data movement to one or more recipients. Iowa uses a data broker to accept data into the prosecutor's case management system.

Included substance abuse and treatment information

Iowa developed a secure Web application that allowed providers of substance abuse evaluation/treatment services and DUI classes to enter the required information into a password protected Web site. The data was then moved via the Internet to the DOT where the data was used to automatically update driver records, reducing administrative tasks for the DOT and the providers and ensuring data consistency between DOT and Corrections.

Modified Office of Driver Services Imaging System

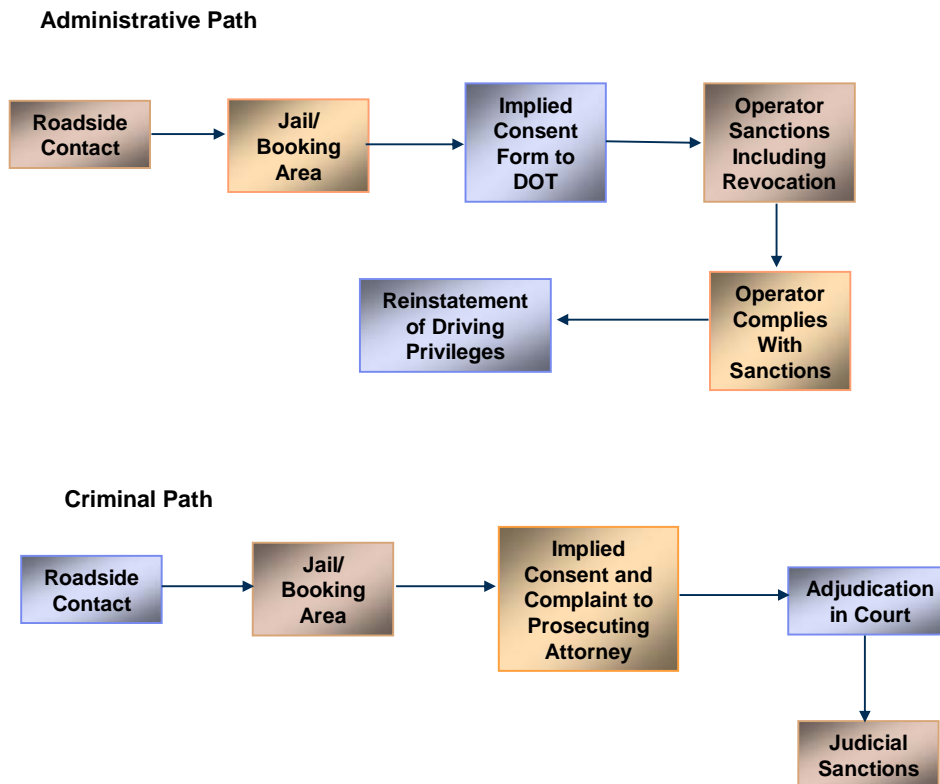
In January 2005 the DOT implemented a new vehicle registration (VR) system, and in 2007 implemented a new driver system (DS) that included DWI processing. Although Iowa had automated VR and DS systems, the new system significantly improved data integration by initially importing electronically created DWI implied consent forms to a server that could place them in

the IMAGE system and then into a work cue. A second phase allowed the data to then automatically populate the new DS, and in the next phase moved data storage to a new Electronic Records Management System used by the entire Iowa DOT rather than the IMAGE system used solely by the Office of Driver Services. This resulted in a completely automated process for implied consent forms where only exceptions were reviewed by staff, which increased the accuracy, and timeliness of data and improved DWI processing efficiency at local and State agency levels.

Improved DWI critical path

Figure 4 shows the administrative and criminal paths in Iowa’s DWI system where information is transferred from the law enforcement officer at the roadside to the DMV for licensing actions and to the courts for judicial sanctions.

Figure 4. Iowa Critical Path



Lessons Learned

The plan and the stakeholders need to be flexible.

Throughout the project, computer technology continued to evolve and partnerships changed. As a result, the approach and how some tasks would be accomplished changed. For example, the original plan was to work through the Iowa Prosecuting Attorney’s Association, but it was found necessary to work with each county attorney. After completing the pilot phase, a new

county attorney's Electronic Case Management System was initiated as part of a larger CJIS. TraCS was identified by the CJIS Advisory Committee as the preferred data collection tool. TraCS and CJIS began a working partnership that resulted in a change in personnel, technology, and product. Initially, the DWI Implied Consent Report was developed to electronically transfer to IDOT via a point-to-point system called Kaleidoscope. The CJIS effort introduced Service Oriented Architecture (SOA), a Web-based service. By using data transfer with SOA and by allowing law enforcement to receive electronic confirmation that the case was received by the county attorney or the court, the newer technology added value to the entire process.

Nebraska

Overview

Nebraska built its system on existing projects and plans by increasing functionality and extending automation to allow for the transfer of data across agencies. The Nebraska Criminal Justice Information System (NCJIS) is a cooperative project between State agencies including the DMV and the Department of Roads as well as local agencies in Nebraska to share data. The State used NCJIS, a secure, Internet-based data portal maintained by the Nebraska Crime Commission, which served as the lead agency for the project. An advisory committee oversees NCJIS and advises the crime commission on criminal justice information system issues; establishes and promotes standards for data processing and communication; facilitates the development and coordination of State and local criminal justice information systems; provides an avenue for cooperation and coordination among State and local information systems; and establishes future directions for data sharing. NCJIS was undergoing improvements that enabled the project to be conducted within the larger scope of other integration and automation projects. This allowed the State to meet multiple goals and build on work not specifically targeted at impaired drivers while still focusing on the needs of that population.

The NCJIS Advisory Committee used the CJIS strategic plan as the overall framework for system improvements and integration. The purpose of the plan, updated in 2000, was to develop a structured criminal justice information system that allowed for the sharing of information by State and local agencies throughout the criminal justice community. The scope of the plan included the statewide information technology infrastructure to support primary and secondary criminal justice functions including law enforcement, prosecution, adjudication, custody, and supervision. Incorporating the impaired driving project as a component of the strategic plan allowed officials to build upon existing efforts and leverage activities undertaken by other agencies.

NCJIS had a variety of data including driver histories, criminal histories, court cases, probation, and corrections, which allowed the State to move forward on aggregating data and record matching across systems based upon name and date of birth. The result was an improved capability to summarize and display individual and event data. Nebraska also proposed to work with the Nebraska Public Safety Wireless Project, an initiative passed by the Legislature in 2002. The intent, while not mandatory, was designed to replace old systems used by the public safety agencies.

Project Goals and Objectives

Nebraska's project focused on linking and tracking data across existing systems, data integration, timely access by all stakeholders, and flexibility to incorporate additional data (i.e., probation, criminal history, and driver-related data). The State also felt standardizing processes and procedures were essential and a by-product of the general integration efforts. The State used MIDRIS to address some of the deficiencies in their system including the following:

- Lack of data linkages.

Nebraska had statewide coverage through the Judicial User System to Improve Court Efficiency (JUSTICE), the NCJIS court data application, which was used in all county courts and 92 of 93 district courts, but there was no linkage with data contained in other databases. Driver histories were not linked with any criminal histories that could contain charges directly related to licensure or any arrest data related to non-driving impairment offenses that could impact a prosecutor's decision to file charges.

- Lack of timely data.

Nebraska used a standard uniform citation and TraCS to collect citation information and transfer data to the JUSTICE system for posting to the DMV driver history file. The data was also available on NCJIS so that law enforcement agencies could monitor ongoing activity or use it for current citations. Despite these processes, data transfer from a citation or arrest to the courts could take weeks and Nebraska felt the project could improve that turnaround time to 48 hours for the courts and improve posting of adjudication information to the DMV within 24 hours.

- Lack of automated prosecution data.

Nebraska had been electronically posting conviction data from the courts to the DMV driver history file for several years. As cases reached adjudication and were recorded in JUSTICE, the data was passed to the State's mainframe and drivers' files were updated nightly. This was not the case with the transfer of citation information from the law enforcement agencies to prosecutors except in Lincoln and Lancaster counties.

Accomplishments

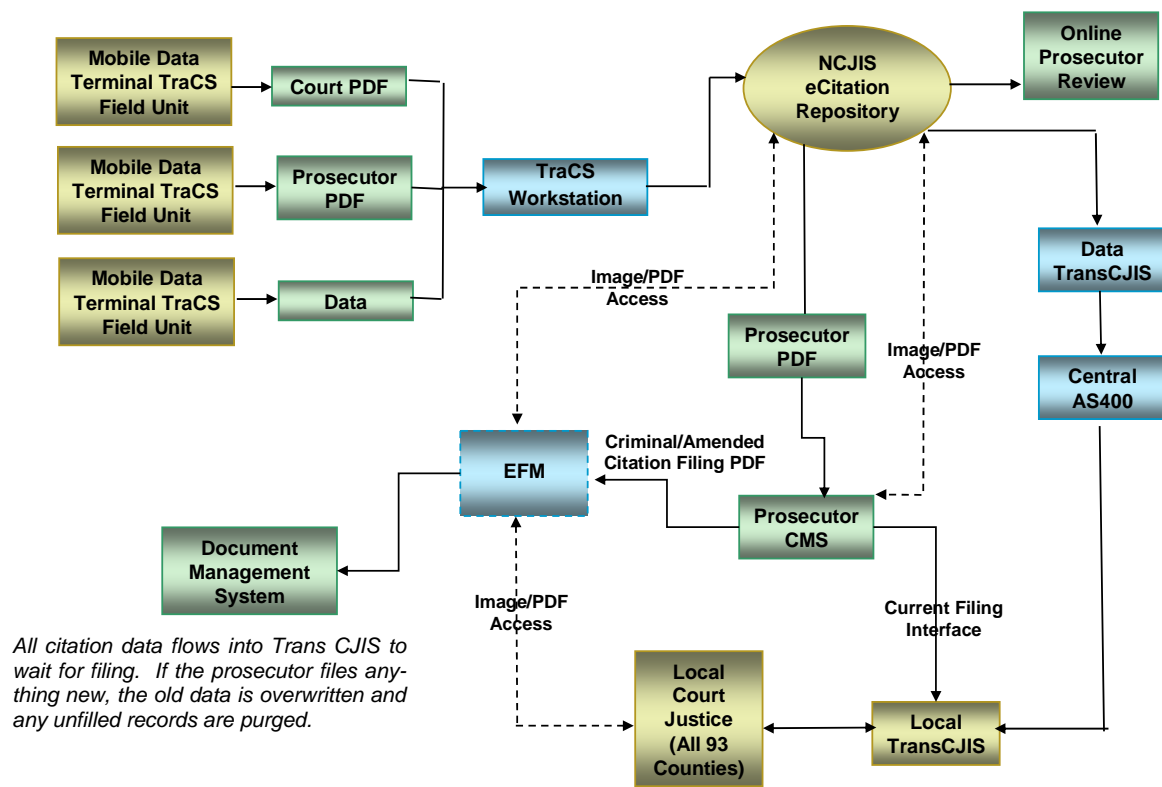
The NHTSA demonstration project enabled the State to improve access to data by enhancing and adding functionality to the NCJIS. The project also broadened the user base to include over 300 agencies and 5,000 users.

Developed electronic citation system

Nebraska obtained legislative approval to allow the direct, electronic filing of citations. The State Patrol assisted in the development of the citation module using TraCS as the e-citation software platform and conducted initial testing at a limited number of fixed sites before expansion to mobile units. Nebraska also incorporated bar code scanning of driver's licenses to au-

tomatically populate fields on citation forms. Images of the citation, which also included the individual's signature, were stored on a central document imaging system making them accessible through NCJIS. For non-TraCS users, Nebraska used Sleuth, a law enforcement records system that gave agencies the ability to integrate records along with court and jail functions. Data captured through the citation was also transferred to prosecutors and existing court systems for quicker resolution of pending cases. Figure 5 shows the pathway of e-citation data from the law enforcement mobile data terminals to the NCJIS repository where information can be accessed and updated by prosecutors and the courts.

Figure 5. Nebraska E-Citation Pathway



Created a citation database and improved search capabilities

The State developed a citation database, a main goal of the Nebraska TRCC, which was initially populated with data from citations generated electronically by the Nebraska State Patrol. The system incorporated the standard searching functions found on NCJIS with other datasets that enhanced functionality by allowing impaired driving citations to be identified and tracked to ensure they were acted on by the local prosecutor. The enhanced functionality on NCJIS allowed users to search for defendants by name, offense type, offense date, and other individual identifiers. The enhanced search methods and improved photographic collection tools helped process of offenders and identify repeat offenders.

Improved interface between law enforcement, DMV, and the courts

The State developed interfaces with JUSTICE, the State's court data application, which extracted and posted warrant data to NCJIS as it was entered into a court's computer system. This provided for real-time access to warrant data for use in the apprehension and case review of offenders. Nebraska developed an interface with the DMV driver history file, which contained the full legal record for an individual, to the digital driver's license photo system making photos available to law enforcement officers through NCJIS.

A standardized extraction protocol for the prosecutor's case management system (CMS) also ensured all necessary data for formal filings for the court was transferred in a timely manner. Patrol criminal history identifiers were also incorporated into the data to improve linkages across systems. For information on sanctions, the Nebraska Probation Management Information System (NPMIS) was deployed in all 21 probation districts.

Enhanced functionality through more complete driver/offender histories

The patrol criminal history (PCH), maintained by the Nebraska State Patrol, now includes both arrest and disposition data and provided the basis for pre-sentence investigations by probation and filing decisions from the county attorney. The available data provided details on all convictions including those not reported to the PCH or local systems. Jail bookings became available on NCJIS and included defendant and booking information that was more detailed than information in the PCH. NCJIS and PCH were able to validate each other to ensure all booked defendants were fingerprinted.

Nebraska Accomplishments

- **Developed electronic citation system.**
- **Arrest and disposition data in patrol criminal history files.**
- **Enhanced search methods quickly identified repeat offenders.**
- **Real-time access to warrant**
- **Driver's license photos made available to law enforcement.**
- **Prosecutors citation database and tracking system**
- **Probation officers notification and tracking system**

NCJIS also now has a feature to notify probation officers if an offender/defendant has committed another offense, including an impaired driving offense, during the probation or pre-trial period. Probation officers can subscribe for notification by entering the offender's name or demographic information. A similar notification system is in the testing stages for Patrol Criminal History events. To assist with the notification process, Nebraska linked events and individuals in NCJIS through a State identification number and linked records based on a variety of data collected within various systems. The DMV has also developed an online number to assist users in finding driver history information.

Lessons Learned

Impaired driving data is not always in the most obvious places.

The implementation of a system for tracking and monitoring impaired drivers can be complex. However, it can and should be addressed in the larger context of offender records and data integration. This broader context allows leveraging funds, building on current initiatives, devel-

oping a broad participant base, and allows sustainability. Any data system that is implemented as a standalone component is, in effect, one more task for a resource stretched criminal justice system. Focusing on impaired drivers provided opportunities for entities to collaborate that may not have traditionally been very interactive. Due to the impact impaired drivers have on agencies' activities and resources ranging from law enforcement through adjudication to advocacy groups, there is great potential for interaction. It is important to involve potential partners early, even if their mission and goals are narrower and not viewed as priorities. For example, while working with crash reports, it became obvious that partnerships need to include those from emergency service providers and the healthcare system. Also, it became obvious that an opportunity existed not only to automate and provide basis access to data, but to examine agency paperwork in order to standardize and streamline business processes across agencies.

Wisconsin

Overview

Wisconsin built a foundation for a model impaired driving records system prior to submitting its proposal and already met a number of the specific requirements. Statewide coverage was provided through the DMV, Division of State Patrol (DSP), and the circuit court system, with DMV serving as the lead agency. The DMV supported the electronic transfer of citation and withdrawal data from law enforcement and the courts to the DMV, and automatically updated driver records and produced orders of administrative suspensions. DSP was in the process of implementing electronic citation software in all police cruisers and the circuit court system was working with the division to transmit electronic citation data and data keyed by court clerks to the DMV. Efforts were also underway to work with smaller, municipal courts to transmit data electronically.

Wisconsin law required all law enforcement agencies to use a uniform traffic citation for traffic offenses, and law enforcement officers had direct access to the Department of Justice Transaction Information for the Management of Enforcement (TIME) system that provided several types of criminal justice information including driver history. The (TraCS) e-citation system also automatically captured driver's license and vehicle registration information from the TIME system, and State troopers were able to access driver history instantaneously through mobile data browsers in their police cruisers. The State's citation tracking system, however, had been built in 2001, but was not yet fully linked to other systems.

Data transmittal from the DSP to the circuit court took approximately 48 hours. E-citations that had not been adjudicated were sent to the DPS server the same night they were received by the circuit court system. Paper citations were sent to the DMV, keyed into the system by a vendor, and then automatically applied to the driver record; a process that was completed within five days.

Statewide coverage was achieved in 2002 through the Consolidated Court Automation Program (CCAP) when the program was adopted by 71 of 72 counties. Courts were able to electronically report adjudicated citations, license withdrawal orders, and conviction change orders. Report-

ing features were available to stakeholders, but were only generated on a fixed schedule by the Bureau of Highway Safety. Ad hoc crash reports, however, were available to law enforcement.

Project Goals and Objectives

The goal of the Wisconsin MIDRIS project was to enhance current programs and systems and fill in the gaps identified in a Traffic Records Assessment conducted in 1999. Specifically, the project would enhance the following functions:

- Add data to the available online driver/offender history that would improve the identification, arrest, and sanctioning of offenders.
- Improve the accuracy and integrity of the data through the electronic transfer of standard legal forms and compliance reports.
- Develop additional reporting capability to allow for the identification of target populations, trends, and problematic components; and for use in evaluating countermeasures.
- Provide stakeholders with adequate and timely data through faster record updates and on-line access to data through the Internet.

The 1999 Traffic Records Assessment noted there was considerable lag time between the violation date and posting to the driver record for access by the judicial community. One of the goals of the project was to post convictions within 24 to 36 hours and to increase the amount of arrest information available to data users.

Accomplishments

While Wisconsin had a number of MIDRIS elements, the pilot project enabled it to substantially improve the way impaired driving cases were managed.

Improved functionality and access across diverse systems

Wisconsin was able to share data across diverse systems including law enforcement, the DMV, and the courts by partners agreeing on the types and definitions of the data to be stored. The use of the TraCS e-citation also improved functionality and access since local governments, once they began working with the program, were able to create interfaces with their existing record management systems and with other agencies. In 2002, only 2% of total citations were issued electronically. In 2005, TraCS was available to the Wisconsin State Patrol and many county and municipal law enforcement agencies. By 2006, the number of agencies using e-citation grew to over 45%. TraCS automatically populated information on crash reports, traffic citations, and OWI reporting forms, and driver and vehicle record fields in real-time via a direct connection to the DMV.

In 2002 only about 10% of all circuit and municipal dispositions were transferred to the DMV electronically. By late 2005, that value grew to over 50%. Dispositions reported electronically update the DMV driver record file within 24 hours and automatically generate the appropriate orders of revocation for OWI convictions.

Integrated data from the alcohol/drug arrest system

Wisconsin integrated its alcohol/drug arrest system that produced chemical test permits and permit holder data. The system stored chemical test details; triggered administrative suspension and/or orders for a pre-conviction assessment for specific scenarios; provided for administrative suspension data online for hearings anywhere in the State; and stored results on the administrative suspension hearing process. The integrated system received data electronically each day through the automated polling of the breath test sites and through data transfer from the lab that analyzed the blood samples. A record-keeping software for the alcohol/drug assessment agencies also provided accurate and timely online reporting to the DMV.

Wisconsin Accomplishments

- **Data sharing across diverse systems.**
- **Record management systems interface with local government agencies.**
- **State Statute search function.**
- **Functionality through TraCS.**
- **Real-time data.**
- **Law enforcement notified of driver's license status.**
- **Timely information provided to the courts.**
- **Dispositions electronically transmitted to the DMV.**
- **Integration with the alcohol/drug arrest system.**
- **Tracking of chemical test results.**

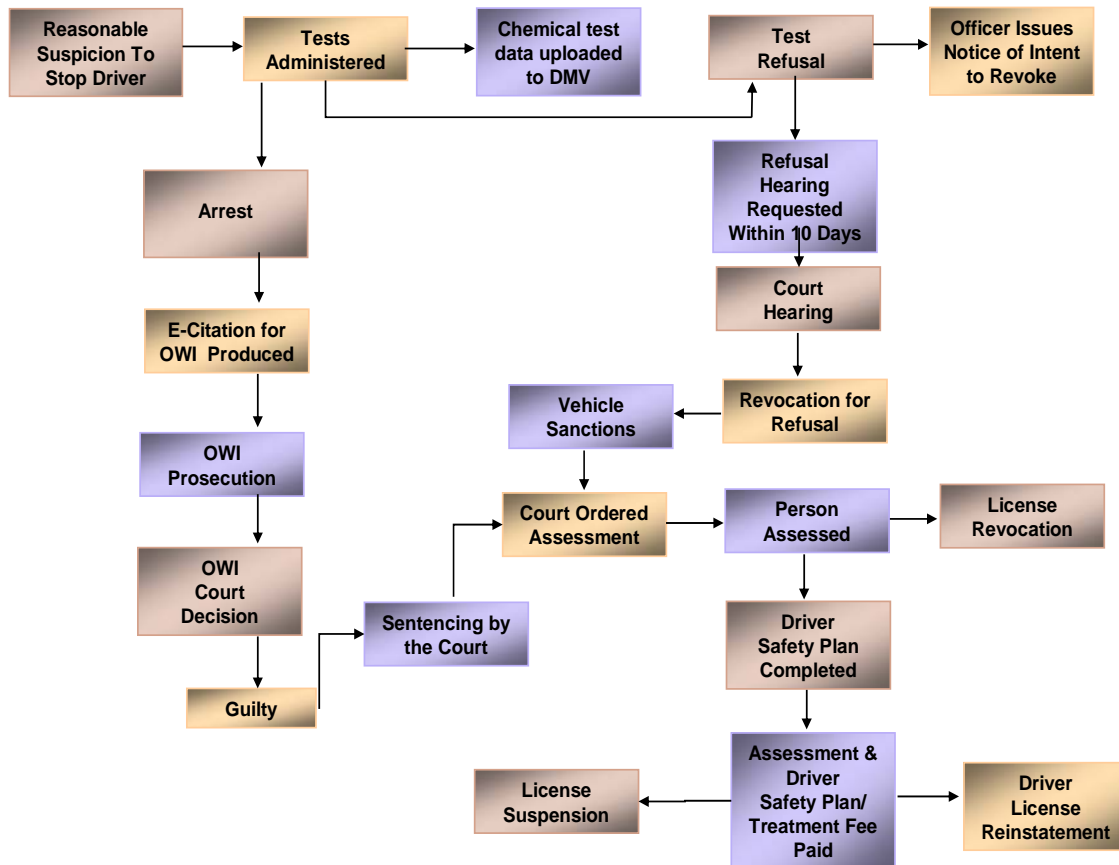
Revised chemical testing systems to allow tracking

The Chemical Test Section of the Division of State Patrol created three new systems for tracking testing data necessary to support specific OWI arrests and issuing or re-issuing driver's licenses. The new chemical arrest and test management system managed the posting of test data to the driver record; the chemical arrest and test resolve system validated data and enabled the State Patrol to edit invalid chemical arrest records electronically submitted from field sobriety testing devices and from the Wisconsin State Laboratory of Hygiene; and the Chemical Test Permit Management System functioned as a product issuance system for creating State Patrol chemical device permits. Officers were issued permits after completing training or re-certification classes and State Patrol officials interfaced bar code readers with testing equipment that helped to auto-populate fields on impaired driving forms.

Improved Critical Path

Figure 6 shows the critical path developed by the Wisconsin project that enabled information from law enforcement officers, including chemical test data and refusal information, to go directly to the prosecutor and the courts with information then provided on the disposition of each case and the sanctions imposed including any license restrictions.

Figure 6. Wisconsin Critical Path



Lessons Learned

One size does not fit all.

Electronic systems and technologies are diverse and appear to make work processes easier for a wide range of agencies and organizational business practices, but one size does not fit all. There are electronic systems available that are appropriate for agencies and are cost effective. Data Warehouses can be difficult to develop, manage, and support financially. Using technology that matches the agency's business needs and budget are critical to the success of the agency and to the success of the electronic system development, implementation, and maintenance. Examples include:

- Web-based applications for municipal courts and other agencies with high support staff turnover and limited computer systems
- Server to server electronic transfer for circuit courts that are located throughout the State generating work products locally and uploading data day and night

- Virtual private network for electronic transmission of confidential files from the toxicology laboratory
- Transparent transfer is a built-in capacity to upload data from law enforcement workstations to courts with minimal effort by law enforcement.
- Software that can retain confidential medical information onsite while transferring the appropriate information to the DMV

Implementation Steps

The following steps are recommended for implementing MIDRIS (Guidelines for Impaired Driving Records Information Systems, 2006). Information on how each demonstration State followed the guidance is also included that may be useful in determining the next steps for further expansion and enhancement of an Impaired Driving Records Information System.

- **Form a TRCC subcommittee**

Form a TRCC subcommittee to oversee development and implementation of the system, including appropriate stakeholders: the courts (judges, prosecutors, and probation), the DMV, the State police and local LEA representatives, treatment, and the highway safety office.

- **Designate a single lead agency**

Among the stakeholders a lead agency must be chosen that will champion the system, and take the responsibility for seeing the project from development through implementation and completion.

- **Establish a mechanism for working with the State’s information technology offices to plan and implement the system.**

The State’s information technology office will need to be involved in planning and implementing the system including writing software and hardware specifications and selecting vendors. Involving program and information technology staff in the planning stages is needed to facilitate data sharing between agencies.

- **Develop stakeholders’ roles and responsibilities**

In the planning stages it is important to not only have stakeholder support,

Implementation Steps
<ul style="list-style-type: none"> ▪ Form a TRCC subcommittee ▪ Designate a single lead agency ▪ Establish mechanism for working with the state’s information technology offices ▪ Develop stakeholders’ roles and responsibilities ▪ Develop a critical path ▪ Conduct assessment of current system ▪ Standardize processes/procedures ▪ Develop a long-range plan ▪ Formalize interagency agreements ▪ Identify statutory, regulatory, or procedural changes ▪ Establish protocols ▪ Identify funding ▪ Work with other states ▪ Formulate an outreach plan

but also discuss and decide on the roles and responsibilities for each group. A shared understanding of each stakeholder's roles is crucial.

- **Develop a critical path**

This critical path describes the step-by-step procedures related to an impaired driving offense, beginning with the citation, continuing through adjudication (administrative and judicial) an ending when the disposition is posted to the driver file.

- **Conduct an assessment of current systems**

An appropriate assessment of the current systems in comparison with the model system should inventory the current stock of hardware and software to identify the needs of courts, LEAs, the DMV, and other key stakeholders, relate the current systems to the detailed critical path, identify deficiencies and steps needed to conform to the model system, examine the compatibility of existing record formats, processes, hardware, software, and evaluate the State's compliance with national standards. States can use the NHTSA traffic records assessments conducted to help determine what gaps are in their traffic records systems. Wisconsin used information reported from their 1999 traffic records assessment to inform their goals and objectives with the MIDRIS demonstration project. Use the MIDRIS data dictionary and especially the MIDRIS element inventory as a tool to assess your system.

- **Standardize processes and procedures**

Each stakeholder or jurisdiction within a State may have its own process, forms, terminology, and data elements related to impaired driving. As stakeholders share information and responsibilities, there should be agreement on how to standardize the impaired driving system and use uniform processes, terminology, and data elements. Using standard data elements will help in integrating separate data systems.

- **Develop a detailed, long-range plan**

The long term plan should have step-by-step details for implementing and maintaining the system, training personnel, system upgrades, and obtaining buy-in from primary stakeholders. A long term will ensure that the efforts to develop and implement the system are sustained, and that the system will be used to better manage the impaired driving program.

- **Develop a formal interagency cooperative agreement**

Once the processes, roles and responsibilities of stakeholders, and long-term plans are determined a cooperative interagency agreement should be developed to formalize those decisions. The agreement should detail the responsibilities of the agencies and potential sources of short-term and long-term funding.

- **Identify statutory, regulatory, or procedural changes.**

In order to implement the system there may be statutory, regulatory, or procedural changes that are needed. If possible, consider simplifying regulations or laws.

- **Establish protocols**

Establish protocols for authorizing system users and procedures to protect personal privacy rights and the security of the system.

- **Identify sources of funding**

Identify sources of funding and consider the use of dedicated fees or fines. Use existing in State expertise and resources to help cut costs.

- **Work with other States**

Consider working with other States where possible to take advantages of economies of scale and to minimize duplication of efforts.

- **Formulate an outreach plan**

Formulate a plan to explain the importance of the system to the public, advocacy groups, and State policymakers. Advocacy groups can make the case for increased funding and support to implement MIDRIS.

Demonstration States Implementation

The project demonstrated that States can use existing systems to improve the collection, management, and analysis of impaired driving data. Other States need to determine the most critical improvements needed and use the demonstration State experiences to implement changes quickly, efficiently, and cost-effectively. The following is how each of the demonstration States used the NHTSA guidance to implement their projects.

Alabama MIDAS data was maintained on a fire-walled Intranet system and secured through a hierarchical system of case-sensitive passwords that employed non-alphanumeric characters that were routinely changed. Iowa also established a mechanism for working with its State information office by including program and support staff in the initial meetings. Stakeholders were directed to work with their own IT support staff and vendors, and after multiple meetings they were able to identify what resources they needed. The State used a diagram to show the pathway of impaired driving data to help target modifications and identify the necessary players in the process. In Wisconsin, the project planners worked with the Department of Electronic Government, the agency responsible for enterprise technology standards for the executive branch, to facilitate data sharing between agencies and across governmental boundaries.

Each State provided information on the roles and responsibilities of the various stakeholders, but it was not clear if these roles and responsibilities had been agreed to by all parties or even jointly discussed. While each stakeholder may have its own responsibilities, a joint review could achieve a greater level of coordination and cooperation and ultimately improve the chances for success.

Iowa developed data standards and processes for data integration between the CJIS Advisory Committee and TraCS, and Nebraska used the data standards created by its CJIS as the basis for a uniform exchange of information. Wisconsin found agreement on the types and definitions for data to be critical for sharing data across diverse systems, particularly since all the partners in the project operated their own computer systems that had different functionality. Wisconsin also found displaying a single driver record on line to be a more effective and efficient way to provide information quickly to users as opposed to a data warehouse that can be difficult to develop, manage, and support financially.

Most grantee States were able to carry out their projects under existing statutes. Because data sharing and integration had been important topics in these States for several years, appropriate legislative actions were taken many years before the inception of these projects. In Iowa, State statutes provided for administrative license revocation of driving privileges for DWI offenses that meant statutory changes were not required. The Nebraska Impaired Driver Tracking System was undertaken via statutory authority of the CJIS Advisory Committee of the Nebraska Crime Commission. No statutory changes were required, but some procedural changes necessitated administrative action by the Nebraska Supreme Court that was aided by participation of judicial branch representatives in the implementation process. The Wisconsin Legislature approved a statutory change to permit electronic certification of driver records in July 2005.

Each participating entity in Iowa was responsible for protecting the privacy and security of their systems. Since Iowa did not create a new system, but merely filled in gaps in the existing systems, enhancing security protocols was not an identified priority. Data were transferred over the secure criminal justice system and entered into through a secure Internet site. The Nebraska NCJIS relied on two-factor authentication and role-based access to varying data sets defined at the agency and user level. The security structure and policies allowed access only to criminal justice users who had been trained and whose agencies have completed MOUs.

In Alabama, the cost of MIDAS development was kept low by using the expertise and computer resources of the University of Alabama's College of Engineering, and by subcontracting through them for the development of all State-owned MIDAS software. This enables rapid prototyping without copyright and license fees. In addition, MIDAS was incorporated into LETS using funding from other private sources. The e-citation system was also developed with other program funds. In Nebraska State appropriations provided base funding for the effort, but various other grants were used to fund parts of the project. Funding for the Wisconsin project came primarily from the NHTSA grant, with some State funds being used to pay DMV project managers and some of the IT resources. Wisconsin also identified a number of cost-effective technology tools including software for assessment agencies so they could retain onsite confidential medical information and transfer it to the DMV; Web applications for municipal courts and technical colleges; virtual private networks that allow the electronic transfer of confidential files

from the toxicology laboratory; server-to-server electronic transfer for the courts; and built in capability to upload data from law enforcement workstations to the courts with a minimal effort on the part of law enforcement.

While there has been some public discussion in Nebraska of NCJIS and the other efforts, there has been more outreach to policymakers about the project. None of the other pilot States mentioned any outreach efforts that may be necessary to gain additional funding and support, particularly now that Federal funding is not available.

References

Guidelines for Impaired Driving Records Information Systems, 71 Fed. Reg. 51665 (2006).

NHTSA. (1997a). Driving While Intoxicated Tracking Systems, Vol. I: Design and Operation. DOT HS 808 520. Washington, DC: National Highway Traffic Safety Administration. Available at http://www.nhtsatsis.net/MIDRIS/Resources/DWI_Tracking_System_volume1_DOT_HS_808_520_January1997.pdf

NHTSA. (1997b). Driving While Intoxicated Tracking Systems, Vol. II: State Tracking Systems Descriptions. DOT HS 808 521. Washington, DC: National Highway Traffic Safety Administration. Available at http://www.nhtsatsis.net/MIDRIS/Resources/DWI_Tracking_System_volume2_DOT_HS_808_521_January1997.pdf

NHTSA. (2010, June 28). A Data Dictionary for Use by States in Developing a Model Impaired Driving Records Information System. Final Report (Draft). Washington, DC: National Highway Traffic Safety Administration. Available at www.nhtsa-tsis.net/MIDRIS/Resources/Final_Report_Draft_Revision_2010_06_28.pdf

DOT HS 811 489
July 2011



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

