ATSIP 2013 Traffic Records Project of the Year

Best Practices Recognition Form

Part 1 - Project Summary

Project Title: Mississippi Electronic Citation (eCitation) System, Daily Activity Reporting System, and Mississippi Public Safety Data Laboratory

Project Description (three sentences or less): The Mississippi Public Safety Data Lab (PSDL) at Mississippi State University includes the Mississippi Electronic Citation (eCitation) Project which has implemented the electronic DUI and uniform traffic citation (UTC) in all Mississippi Highway Patrol Districts and one local agency, and provides tools for tracking and analyses of citations. PSDL’s Daily Activity Reporting System tracks all work-load activity of the law enforcement officer and integrates all of the officer’s eCitation activity automatically. The PSDL is also a repository for all traffic safety records data for the state of Mississippi that is made publicly available via its website.

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Lead Agency for Project:
Mississippi Department of Public Safety

Participating/Cooperating Agencies (if any):
Social Science Research Center, Mississippi State University
  Dr. Laura Myers-Mississippi eCitation Project Director
  Dr. Ginger Cross-Mississippi eCitation Project Director
  Tonya Neaves-Mississippi Public Safety Data Laboratory Director
Center for Advanced Public Safety, University of Alabama
  Beau Elliott-eCitation Technology Developer
  Dr. Allen Parrish-eCitation Technology Project Director
State Traffic Records Coordinating Committee
Mississippi Office of Highway Safety
  Robert Hancock- Traffic Records Coordinator/ State Law Enforcement Liaison
Which National Agenda goals apply? (May be numbered 1-6 corresponding to the order given in the original document)

1. Does it involve a leader(s) who promotes the importance of highway safety information systems, used for safety policy and program decision-making?
Representatives from the Mississippi Department of Public Safety, Mississippi Highway Patrol, Mississippi State University Social Science Research Center and the State Traffic Records Coordinating Committee have been actively involved in the deciding what data should be recorded from citations.

2. To involve the coordination among various organizations with a responsibility for highway transportation safety policy:
The basis for Mississippi’s development of Electronic Citations has been its STRCC, ensuring the coordination of federal, state and local government stakeholders listed. MSU and CAPS were involved in building the program.

3 Represent an example of integrating the planning of highway safety programs with highway safety information systems?
Information from the eCite system and Daily Activity Reporting System is being overlayed from the electronic crash system to provide mapping capabilities.

4. Represent an example where managers and users of highway safety information have utilized or were provided the necessary resources to select the appropriate technology to meet their information needs?
Information from the eCite system and Daily Activity Reporting System is used to plan daily activity of officers working the field to be proactive in the DDACTS model for lowering crashes and fatalities. MDOT has a state mapping program that is being plugged into the eCite program for overlaying citations with citations. This will enhance the overall outlook to pinpoint how the enforcement programs are working and how to strategically plan other enforcement programs.

5. Represent examples of highway safety professionals being trained in the analytic methods appropriate for evaluation of highway safety information?
In person training, training videos, and documentation is provided to ensure it is utilized properly and to its full potential.

6. Involve the promotion and use of technical standards for characteristics of highway safety information systems, critical to the development and management of highway transportation safety programs and policies?
The program was built to be compatible with the multiple systems that are located in the 82 counties that the Mississippi Highway Patrol, Sheriff Agencies and Local Municipalities issue citations in. This program will consist of a full traffic court case management/citation tracking system once completed in all the jurisdictions in the state.

Reference the priority in your traffic records strategic plan to which this project applies:
The Mississippi Traffic Records Strategic plan administered by the Mississippi Governor’s Office of Highway Safety and set by the State Traffic Records Coordinating Committee (STRCC) addresses several goals and performance measures in the Traffic Safety Information System Strategic Plan, including improving the timeliness, accuracy, completeness, uniformity, and accessibility of citation/adjudication.
data needed to identify priorities for national, state, and local highways and traffic safety programs; and providing for the comprehensive collection, maintenance and dissemination of traffic safety related data in order to set the direction for traffic safety improvement measures

Accessibility Measure: C/A-X-1: To measure accessibility of the citation database:
Timeliness Measure C/A-T-1: The mean number of days from (a) when the date of the citation was issued to (b) the date the citation is entered into the statewide citation database or a first available repository.
Accuracy Measure C/A- A-1: The percentage of citation records with no errors in critical data elements.
Completeness Measure C/A-C-1: The percentage of citation records with no missing data elements
Uniformity Measure C/A-U-1: The percentage of citation records entered into the database with common uniform statewide violation codes.
Integration Measure C-I-1: The percentage of appropriate records in the citation file that are linked to another system or file.

Project Cost:
planned $: ECitation: $1,932,354 (4 years) and PSDL/DAR: $1,735,647 (4 years)
actual $: ECitation: $1,932,354 (4 years) and PSDL/DAR: $1,735,647 (4 years)

Extent of Project Implementation:
In 2010, the eCitation team gave initial demonstrations of eCite, received feedback, and conducted basic eCitation training for a pilot group of MS Highway Patrol (MHP) users and their supervisors. In 2011 and 2012, all law enforcement officers with MHP and one local agency (pilot) were trained on using eCite for UTCs, as were court clerks in each MS county who would be receiving the citations. The eCitation team trained all MHP, Reservoir Police, and justice court clerks on the new eCite DUI ticket in 2012. In summer 2013, all MHP personnel were using the electronic UTC and the electronic DUI citations.

Summary of Project Benefits: What was improved, who benefited, and how?
The electronic citation system (the eCite software, a CitSearch ticket tracking website, and a data analysis website) now permits more efficient and reliable generation of citations as well as the tracking and analyses of electronically-issued citations. The electronic DUI and UTC citations can now be tracked from issuance to court download, and the system will eventually include complete adjudication information. The electronic DUI citation makes sure that all electronically-issued DUI tickets are accounted for and can be tracked through the system.
The Daily Activity Reporting System allows for accurate data entry into the officer activity calculations from eCitation and reduces the reliability problems of manual data entry. It also allows for the creation of weekly, monthly, and yearly audit reports for supervisory purposes.
The PSDL objectives are threefold: to provide enhanced 1) developmental, 2) technical and 3) analytical support of traffic safety records data. By specifically employing CompStat methodology, the PSDL assists the Mississippi Highway Patrol (MHP) in transitioning from traditional and outdated policing measures to a more dynamic and integrated law enforcement model driven by fact-based data. CompStat is a service-oriented architecture that embraces data warehousing and cloud computing to yield powerful analytic capabilities. By integrating, storing, displaying, and making a variety of traffic safety records data accessible, CompStat applications permit agencies the critical ability to:
• Obtain accurate, complete, and timely information to identify and rank problem areas;
• Conduct trend analyses to project evaluations towards improving quality of services;
• Develop uniform reporting, mapping, and visualization tools for rapid deployment;
• Share relevant information to identify partners and improve local safety intelligence;
• Create a robust program reporting system to track progress; and interface with the public and organizational stakeholders.

Part Two: Project Detail

Project Description:
This project is a technology venture to collect DUI and UTC citation data by computer in the law enforcement officer's vehicle. The eCitation software supports efficiency and data validity by allowing automatic retrieval and population of information into an electronic citation (e.g., personal identification from a driver's license that is collected from a license scanner and location data collected from an available GPS system). The electronic DUI and UTC citations are generated and printed in the vehicle and given to the offender. The DUI and UTC citations are then transferred electronically to the appropriate court jurisdiction. Electronic General Affidavits (GAs) are also created by the system, but are not transferred to the courts. The system captures both in-state and out-of-state driver information and offenses. Court adjudication data are entered by the courts after download, and then transmitted electronically to DPS for updating Driver History Files. In addition to the eCitation software used by law enforcement personnel to generate, print and transfer tickets, the project also involves the creation of a citation management and tracking website (i.e., CitSearch) as well as a data analysis and visualization website (i.e., Dashboard). These sites permit management and oversight of the writing of DUI and UTC tickets and allow the ability to track ticket processing from issuance through adjudication. The Daily Activity Reporting System is integrated with the eCitation system and automatically populates the daily activity record of the officer for activity calculation, reducing time spent by the officer in entering this data manually and also reducing potential errors in data entry.

The Mississippi Public Safety Data Laboratory (PSDL) was established in 2007 at the Social Science Research Center (SSRC) of Mississippi State University (MSU) in partnership with the Mississippi Office of Highway Safety (MOHS) of the Mississippi Department of Public Safety (DPS), with funds from the National Highway Transportation Safety Administration (NHTSA).

The PSDL was created to assist MOHS with the successful execution of its Highway Safety and Performance Plan focused on adopting and implementing programs that enhance the functionality of data-driven strategies as defined by NHTSA. Since data is the underpinning element guiding decision making to direct resources to programs with the most need and greatest impact, the PSDL was specifically designed to leverage operational technology with the ability to perform problem identification and countermeasure analysis.

Describe the major process steps for your project, including any unique aspects that enhanced success:

The Social Science Research Center (SSRC) at Mississippi State University (MSU) and the University of Alabama’s (UA) Center for Advanced Public Safety (CAPS) teamed up in 2010 to begin an electronic citation project for the State of Mississippi. With the strong support of the Office of Highway Safety and in partnership with the Mississippi Department of Public Safety (MDPS), the group has successfully developed the MOVE/eCite software system for Mississippi’s law enforcement community, as well as a citation tracking and management system (i.e., CitSearch) for citations issued with the eCitation system. The group is also developing citation visualization and analyses tools (i.e., Dashboard).
Throughout the project, the SSRC has served as the overall project manager and carried out training and support functions, while CAPS has provided technical development and support. All MHP law enforcement personnel and officers for one local agency have been trained on the eCite system for issuing DUI and Uniform Traffic Citations (UTCs). The DUI citation has been integrated into the eCitation system and is currently in the deployment phase to MHP. The Daily Activity System has been completely redeveloped and integrated with the eCitation system. Currently, new agencies (sheriff’s offices, police departments) are being assessed for readiness to be trained and given access to the eCitation system. Bringing on additional agencies beyond MHP would allow for a more comprehensive, statewide, automated citation/conviction system for DUI and UTCs.

**Provide the evidence and reasoning used to determine the success of the project:**

The table below shows the increases in electronic ticket writing since the beginning of the project in 2010. The success of the eCitation system is based on the number of electronic tickets written which permits accurate tracking of the tickets from officer to court download. It is accessible to track citations from issuance within minutes of the officer writing the citation electronically till it is pulled from the court. By 2012, all MS Highway Patrol Districts and one local agency were writing electronic UTCs and in 2012, the electronic DUIs and GAs were added for MHP in their pilot phase and the pilot phase ends mid-July, 2013.

<table>
<thead>
<tr>
<th>Year</th>
<th>UTCs</th>
<th>DUIs</th>
<th>GAs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>5,786</td>
<td>0</td>
<td>0</td>
<td>5,786</td>
</tr>
<tr>
<td>2011</td>
<td>117,014</td>
<td>0</td>
<td>0</td>
<td>117,014</td>
</tr>
<tr>
<td>2012</td>
<td>297,249</td>
<td>134</td>
<td>76</td>
<td>297,459</td>
</tr>
<tr>
<td>2013 (6 months)</td>
<td>137,760</td>
<td>797</td>
<td>372</td>
<td>138,929</td>
</tr>
</tbody>
</table>

The success of the Daily Activity System is based on the ability of the newly redeveloped system to integrate all eCitation activity from the officers and to also create each type of auditing report for supervisory personnel from the daily activity data of the officers. The successful implementation of the Daily Activity System took place in July 2013.

**Measure C/A-T-1:** The mean number of days from (a) when the date of the citation was issued to (b) the date the citation is entered into the statewide citation database or a first available repository.

<table>
<thead>
<tr>
<th>Specification of how the Measure is calculated / estimated</th>
<th>Narrative Description of Calculation / Estimation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculations are measured within the 81 of the 82 Justice Courts that are accepting electronic citations for the Mississippi Highway Safety Patrol.</td>
<td></td>
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<tr>
<td>From 4/1/11-3/31/12 there were 176,197 electronic citations stored in the CiteSearch database of the eCite system. Those electronic citations averaged 11.4 days from time citation was received by the court till it was placed in the system. The measure is calculated from time citation was written till it was received by the court system. Manual tickets that were written took an average of 30 days from when it was written to get to the court clerk to be placed in the system.</td>
<td></td>
</tr>
<tr>
<td>From 4/1/12-3/31/13 there were 295,361 electronic citations stored in the CiteSearch database of the eCite system. Those electronic citations averaged 8.5 days from time citation was received by the court till it was placed in the system (note that this includes the 7 day mandatory hold in the system per MHP policy for trooper view and weekends). Electronic tickets that were written...</td>
<td></td>
</tr>
</tbody>
</table>
took an average of 2 minutes from the time it was written to be transmitted from the car, to be placed in the CiteSearch database (time is depending on wireless signal from modem in the car). Manual tickets that were written took an average of 30 days from when it was written to get to the court clerk to be placed in the system.

<table>
<thead>
<tr>
<th>Date and Baseline Value for the Measure</th>
<th>4/1/2011-3/31/2012–</th>
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<tbody>
<tr>
<td>• MHP tickets with Electronic Citations issue dates between 4/1/11 and 3/31/12 = 176,197</td>
<td></td>
</tr>
<tr>
<td>• Average time between issue date/time and vendor download date/time = 273.09 hours or 11.4 days</td>
<td></td>
</tr>
</tbody>
</table>

Please note, however, that eCite tickets would have all been visible to clerks on CitSearch 7 days from issue date for non-jailed offenses and immediately upon transfer from trooper’s system for jailed offenses.

<table>
<thead>
<tr>
<th>Date and Current Value for the Measure</th>
<th>04/01/2012-3/31/2013-</th>
</tr>
</thead>
<tbody>
<tr>
<td>• MHP tickets with issue dates between 4/1/12 and 3/31/13 = 295,361</td>
<td></td>
</tr>
<tr>
<td>Average time between issue date/time and vendor download date/time = 204.6 hours or 8.5 days</td>
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<tbody>
<tr>
<td>Number of Citations Submitted Manually</td>
<td>101,208</td>
<td>29,191</td>
<td></td>
</tr>
<tr>
<td>Average Time Between submission of Manual Citations and Entry into Court Repository</td>
<td>30 – 40 Days</td>
<td>30 Days</td>
<td></td>
</tr>
<tr>
<td>Number of Citations Submitted Electronically</td>
<td>176,197</td>
<td>295,361</td>
<td></td>
</tr>
<tr>
<td>Average Time Between submission of Electronic Citations and Entry into Court repository</td>
<td>273.09 hours or 11.4 days</td>
<td>204.6 hours or 8.5 days</td>
<td></td>
</tr>
</tbody>
</table>

Why should this project be recognized as a best practice in traffic records?

The Mississippi Public Safety Data Lab is a repository for traffic safety records data for the state of Mississippi, permitting for the analysis of data for traffic safety purposes. The eCitation project has created an electronic citation issuance, tracking, and analysis system that is simple to use, and creates an automated system that tracks all tickets issued through the system. It has been easily implemented in a large highway patrol system over a relatively short period of time. The Daily Activity System reduces reliability problems and makes data entry more efficient for officers in entering their activity data, helping to ensure more reliable and efficient officer activity data. The ease of use, acceptability and satisfaction of end-users, and the success of the project to date have created a demand for the system statewide by local municipal and county agencies. These systems together provide the state with immediate access of data that is used to collect information on citations written statewide and in specific areas in conjunction with the states Electronic Crash Reporting system to provide planning to reducing fatalities and crashes in Mississippi.

I would like to have this project considered for presentation during one of the forum sessions

____X____ Yes, oral presentation _______Yes, poster presentation _______No