National Model for the Statewide Application of Data Collection and Management Technology to Improve Highway Safety
Project ITS-01DP9(001)
Project Report for 2005

The project involves the enhancement of the statewide crash data reporting with automated collection and data capture tools. To that end the project provided funding for computer hardware and peripherals to expand the use of the national model to more law enforcement agencies throughout Iowa.

Participating Agencies

Initially 19 agencies were selected for participation, as identified in the Project Report for 2002. All the agencies participated except for the Iowa State University Department of Public Safety and the Woodbury County Sheriff's Office. One agency, the Atlantic Police Department, was added to the project.

Grant Funds

First quarter 2002	$57,293.11
Second quarter 2002	$19,734.62
Third quarter 2002	$2,473.49
Fourth quarter 2002	$7,087.50
First quarter 2003	$6,127.52
Second quarter 2003	$114,487.61
Third quarter 2003	$67,796.15
TOTAL	$275,000.00

The source of the 50/50 matching funds:	CMAQ*	$150,150
	Local Agency	$74,850
	Soft match	$50,000 direct costs

*CMAQ: Congestion Mitigation and Air Quality Improvement Program

Project Successes

The project successes include increased percentage of motor vehicle crash reports received electronically, improved data quality and the data being available to users more timely for data driven decision making.

The percentage of officer-generated crash reports received electronically into the statewide crash database increased to 68 percent at the end of 2005 compared to 47 percent at the beginning of 2002. The validations built into the Traffic and Criminal data collection software (TraCS) checks the data at the time of entry and provides the officer immediate feedback. Editing the data at the point of capture significantly improves data quality. TraCS also produces a more readable and professional looking report.

The receipt of 68 percent of the crash reports electronically allows us to stay current with manual data entry of paper reports. This has allowed us to move to running enterprise level edits weekly instead of after the year is complete. Editing the data timely allows us to add new validations to TraCS as we see issues arise to the result of further increasing data quality. More importantly, the data is available to users to support data driven decision making.

Beginning in 2005 Iowa DOT is able to provide statewide crash data on a quarterly basis. At the beginning of the project, the available data was 1.5 to 3 years old.

Additional data quality and availability was boosted by making data reporting and analysis tools available to local law enforcing agencies. As local agencies make greater use of the data, they become more concerned about the quality. Using the reporting and analysis tools, the local managers have access to almost real-time data on which to allocate resources and make other data driven management decisions.

The following paragraph is an excerpt from the Executive Summary of Iowa Traffic Records Assessment conducted October 31 – November 4, 2005, to meet the requirements of the National Highway Traffic Safety Administration:

"Finally, Iowa traffic safety management is unique in that it actually uses traffic records system data for traffic safety decision making. Too often traffic records system data are underutilized, and traffic safety decisions lack coordination and purpose, and in this case, it is difficult to ascertain what traffic safety strategies worked and why. The same countermeasures are implemented year after year with little thought given to how the countermeasures might be changed or modified to achieve a greater impact. Iowa traffic safety management is to be congratulated for the way it promotes and uses traffic records system data. The commitment by Iowa traffic safety management to traffic records system data for traffic safety decision making is a model that should be followed in other states."

Lessons Learned

Significantly more is accomplished by multiple agencies from all levels of government working together. Institutional issues are much more difficult to solve than are technical issues.

Projects accomplished in connection with other projects and as part of a larger plan enhance the products of all the projects. Actively seeking opportunities for the gain from the synergy of related projects is key to making this happen.

Any data collection software used by law enforcement officers must be user friendly. User input is essential at the outset of development and continues to be important through implementation and throughout the ongoing use of a data collection tool.

All software needs ongoing support and maintenance. All users need training. Both of these essentials demand staff dedicated to these efforts.