THE SAFETY DATA IMPROVEMENT PROGRAM 2009–2010 BIENNIAL REPORT TO CONGRESS

Pursuant to Section 4128 of the
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
Public Law 109-59
May 2013

INTRODUCTION

Section 4128 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorized the Secretary of the U.S. Department of Transportation (DOT) to make grants to States through the Safety Data Improvement Program (SaDIP) for projects and activities to improve the accuracy, timeliness, and completeness of commercial motor vehicle (CMV) safety data. The SAFETEA-LU also directed the Secretary to transmit a biennial report to Congress on the activities and results of the program and any recommendations the Secretary determines appropriate. This is the second such report. The first "Safety Data Improvement Program 2007-2008 Biennial Report" was transmitted to Congress in February 2010.

BACKGROUND

The Federal Motor Carrier Safety Administration (FMCSA) is responsible for regulating the safety of interstate truck and bus travel in the United States. Since FMCSA was established on January 1, 2000, large truck and bus fatalities have declined from a high of 5,620 in 2000 to 3,957 in 2010. In 2000, the fatality rate from crashes involving large trucks and buses was 0.205 per 100 million vehicle miles traveled (VMT) by all motor vehicles. In 2010, that same rate had decreased to 0.133. This represents a 35 percent decrease in the fatality rate since FMCSA was established and indicates that FMCSA has already exceeded its ambitious safety goal of reducing fatalities involving large trucks and buses to a rate of no more than 0.160 fatalities per 100 million VMT by the end of 2011. Additionally, the injury rate for 2010 from crashes involving large trucks and buses decreased to 3.58 per 100 million VMT from a high of 6.04 in 2000, which represents a 41 percent overall improvement. With roughly 1,100 employees, FMCSA oversees an industry comprised of more than 524,000 interstate and hazardous materials motor carriers and approximately 5.6 million commercial drivers. The FMCSA relies on strong partnerships with its stakeholders to achieve its safety mission.

The FMCSA is a data-driven organization. Timely, accurate, and accessible data are critical to the success of the Agency's safety programs and development of its regulations. The FMCSA uses data collected from motor carriers, Federal and State agencies, and other sources to monitor motor carrier compliance with the Federal Motor Carrier Safety Regulations and Hazardous Materials Regulations and to evaluate the safety performance of motor carriers, drivers, and vehicle fleets. The data are used to characterize and evaluate the safety experience of CMV operations and to help Federal safety investigators focus enforcement resources by identifying high-risk carriers and drivers.

The FMCSA maintains the Motor Carrier Management Information System (MCMIS), which contains census, crash, inspection, safety audit, and compliance review data for carriers. Access to the system is provided to designated employees in each State through SAFETYNET, an automated information management system that supports FMCSA programs by allowing designated users to upload safety performance data on interstate and intrastate commercial motor carriers to MCMIS. Once entered, the data are available to FMCSA, States, and other entities for further analysis.

The MCMIS information forms the basis for FMCSA's funding of enforcement activities identified in State motor carrier safety improvement plans, as required under the Motor Carrier Safety Assistance Program. Additionally, motor carrier companies, insurers, shippers, safety researchers, advocacy groups, and a variety of other entities use the data in the MCMIS files.

Prior to SAFETEA-LU and the Motor Carrier Safety Improvement Act of 1999 (MCSIA), periodic audits of MCMIS crash data by FMCSA and others revealed data integrity problems. Data on crashes involving large trucks and buses were incomplete and many eligible crashes were not reported. Section 225 of MCSIA addressed the lack of complete, timely, and accurate CMV crash data through the creation of the Commercial Vehicle Analysis Reporting System (CVARS) program. The CVARS was developed to address deficiencies in data quality and the lack of data reporting. Under CVARS, FMCSA initiated several efforts, including continued funding to States to improve the collection and analysis of truck and bus crash data, the development of the State Safety Data Quality (SSDQ) map, and other initiatives to assist the States in improving data reported to FMCSA. Under MCSIA and CVARS, DOT provided over $21 million in discretionary grants and cooperative agreements to 34 States between 2002 and 2005.

STATE SAFETY DATA IMPROVEMENT PROGRAM

Under SAFETEA-LU, Congress authorized SaDIP, the successor to CVARS. The SAFETEA-LU authorized $11 million for Fiscal Years (FY) 2006 through 2009 ($2 million for FY 2006 and $3 million for the remaining years) and the Consolidated Appropriations Act, 2010, provided $3 million for FY 2010 to award grants to States for projects and activities to improve data reported to FMCSA. Requests for SaDIP grants exceeded the available funds in FY 2008 through FY 2010. From FY 2006 to FY 2010, FMCSA awarded 63 SaDIP grants to 30 States, totaling $14,277,100.78.

Additionally, in FY 2006, FMCSA established specific guidelines for assessing State proposals for SaDIP grants that better assess and prioritize States' funding requests and provide greater uniformity in evaluating, ranking, and awarding funds to States. Evaluation criteria for awards have been clearly defined and posted publicly at www.grants.gov for any potential grant applicant to review and consider prior to submitting an application. The FMCSA has integrated the availability of SaDIP grants into its overall grant announcement published in the Federal Register in FY 2009 and FY 2010 and solicited applications from States through www.grants.gov. All eligible applications for SaDIP funds were evaluated and grant awards were made before the end of each fiscal year from 2006 to 2010. These enhancements were made in response to a November 2005 Government Accountability Office report entitled *Further Opportunities Exist to Improve Data on Crashes Involving Commercial Motor Vehicles*.

Table 1 – State Grant Funding Distribution FY 2006 – FY 2010

State	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Alabama	$300,000.00		$240,000.00	$500,000.00	$350,000.00
Alaska	$160,384.00			$335,479.20	$94,416.00
Arizona		$112,800.00	$129,350.00		
California		$400,000.00			
Connecticut				$25,600.00	$45,600.00
District of Columbia	$209,337.60				
Georgia					$200,000.00
Iowa			$300,000.00		$350,000.00
Idaho	$26,400.00		$300,000.00		
Indiana		$408,740.00	$316,000.00	$99,902.33	
Kansas	$415,957.00	$640,000.00	$420,000.00	$240,288.16	
Kentucky			$256,000.00		
Louisiana		$188,482.91		$270,746.40	
Maine	$243,656.64	$101,408.00		$205,708.67	$193,619.00
Maryland		$154,400.00		$288,000.00	
Massachusetts	$201,578.00		$299,664.00	$215,981.64	$90,447.00
Michigan			$230,810.00		$350,000.00
Mississippi	$249,994.00				
Missouri				$68,250.00	
Nebraska				$299,923.20	
Nevada			$8,640.00		
New Hampshire	$125,790.54				
New Jersey		$116,120.00			$104,244.00
New Mexico			$180,000.00		$82,755.00
North Carolina		$425,153.00[1]	$291,520.00	$450,120.40	$72,175.00
Oklahoma		$80,729.09[2]			$350,000.00
Rhode Island	$44,000.00	$72,000.00			$54,944.00
Tennessee			$28,016.00		$311,800.00
Virginia			$300,000.00[3]		$350,000.00
Washington		$300,170.00			
Total	$1,977,097.78	$3,000,003.00	$3,300,000.00	$3,000,000.00	$3,000,000.00

Using these grants, States have undertaken the following primary activities:

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[1] Two FY 2007 SaDIP grants were awarded to the State of North Carolina including $200,000 to the North Carolina State Highway Patrol and $225,153 to the North Carolina Department of Transportation.

[2] Two digits were transposed on the obligation documents in FY 2007, resulting in an additional $3.00 being obligated to the State of Oklahoma. The grantee did not expend the additional funds and the extra amount was de-obligated.

[3] $300,000 of Commercial Vehicle Information Systems and Network funds were awarded to the State of Virginia in support of an FY 2008 SaDIP grant. This reprogramming exceeded the appropriated amount for SaDIP and triggered a deficiency, which was reported to the Government Accountability Office and to the U.S. Congress on April 29, 2013.

- Reducing the backlog of data not yet entered into State-level databases by hiring additional resources to create more complete State crash data files.
- Developing and implementing electronic data systems for collecting and processing crash data in a more timely, accurate, and consistent manner.
- Providing training, such as educating law enforcement officers and State traffic records personnel on the definitions and criteria for CMV crashes, and creating more accurate and consistent data.
- Analyzing existing data and forms to identify insufficiencies or inaccuracies and developing plans for addressing them.

Grant awards for activities supported by SaDIP and its predecessor, CVARS, have resulted in significantly improved both the quantity and the quality of data reported by the States to FMCSA. Table 2 shows that data on the number of large trucks involved in crashes reported to FMCSA, as compared to the large truck crashes reported by the National Highway Traffic Safety Administration's (NHTSA) General Estimates System (GES), has increased and has aligned more with the GES projections.

**Table 2 – Trucks Involved in Crashes Reported to FMCSA and
NHTSA's Fatality Analysis Reporting System (FARS) and GES**

Year	Large Trucks Reported in MCMIS	Large Trucks Reported in GES* (Non-Fatal) + FARS (Fatal)	Percent Reported in MCMIS
2001	109,248	147,105	74.3
2002	116,434	145,319	80.1
2003	127,472	140,375	90.1
2004	139,291	139,444	99.9
2005	147,491	139,681	105.6
2006	147,350	135,522	108.7
2007	147,872	130,424	113.4
2008	130,560	117,604	110.0
2009	110,697	94,308	117.4
2010	122,700	95,779	128.1

Source: MCMIS, FARS, and GES, 2001 to 2010.
*The GES is a sample survey of large truck crashes nationwide. In order for a crash to be eligible for the GES sample a police accident report must be completed, it must involve at least one motor vehicle traveling on a traffic way, and the result must be property damage, injury, or death. There are slight definitional differences between GES and what is collected in MCMIS. Additionally, MCMIS collects crash data from all States plus the District of Columbia. The FMCSA continues to explore why there are differences in reporting between GES and MCMIS. However, GES continues to act as a benchmark for reporting large trucks in crashes.

The FMCSA developed the SSDQ methodology and map as an important visual tool for States to use in improving the crash and inspection data reported to FMCSA. The map depicts the overall data quality for each State in one of three rating categories – good, fair, and poor. The underlying rating system that is visually depicted serves as an incentive for States to improve their crash and inspection data. Originally, the map contained five performance measures and one summary indicator that were used to determine the State's overall data quality rating. In October 2007, FMCSA introduced two additional measures focused on completeness of the crash file. In 2010, two additional new measures were introduced. The newest measures evaluate the completeness of the vehicle inspection data as well as the completeness and accuracy of inspection record vehicle identification numbers.

The criteria used to establish the States' overall rating were also modified in September 2010. A State receives a "good" overall rating if it has at least one "good" crash measure, one "good" inspection measure, and no "poor" measures. States that do not meet the "good" measure criteria and do not have any "poor" measures receive a "fair" rating. The "poor" criteria have not changed. Today, there are nine performance measures (five crash measures and four inspection measures) and one summary indicator. The FMCSA identified standards for each measure to arrive at an overall rating, which produces the color-coded SSDQ map. Figure 1 depicts the SSDQ map as of April 2011.

Figure 1 – SSDQ Map
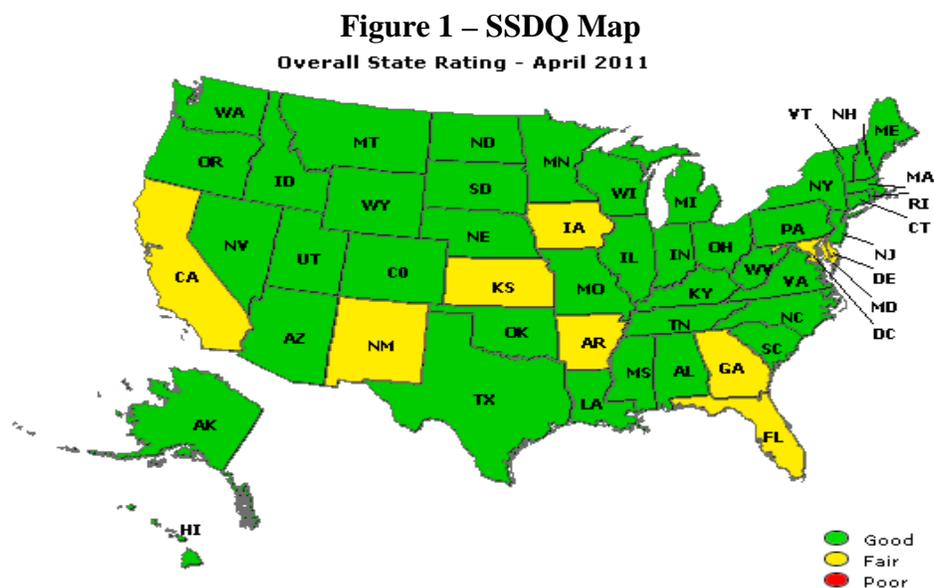
Source: Analysis and Information Online, April 2011
(http://ai.fmcsa.dot.gov/DataQuality/DataQuality.asp)

The initial SSDQ map produced in March 2004 depicted 24 "good" States, 13 "fair" States, and 14 "poor" States. The SSDQ map dated April 2011, depicts 41 "good" States, 9 "fair" States, and 1"poor" State (District of Columbia). Table 3 shows the States' improvements from 2004 to 2009.

Table 3 – Number of States by Rating Category

Overall State Rating	5 Measures		7 Measures		9 Measures October 2010	
	March 2004	March 2007	September 2007*	September 2010	January 2011*	April 2011
Good	24	40	21	40	38	41
Fair	13	8	20	9	10	9
Poor	14	3	10	2	3	1

Source: Analysis and Information Online March 2004, March 2007, September 2007, September 2010, January 2011 and April 2011 (http://ai.fmcsa.dot.gov/).
*New Measures were introduced.

While there has been significant improvement in the overall quality of State-reported data over the last several years, FMCSA continues to work with the States to further improve the performance and quality of safety data reported.

In August 2008, FMCSA conducted its first Data Quality System-Wide Training and Conference. This conference was designed to work with the agency's State partners, review current aspects of the FMCSA's SSDQ Program, and identify targeted solutions to support State reporting of complete, accurate, and timely data on large truck crashes and inspections

In December 2010, the First Edition of the DataQs Users Guide and Manual was published. The DataQs System, which has been operational since February 2004, allows the public to file concerns about the accuracy of data that FMCSA makes available online. The DataQs User Guide and Manual describes standardized processes and techniques to address and resolve Requests for Data Reviews (RDRs) generated by commercial drivers, motor carriers, FMCSA and State agency users, and others, when submitted electronically to FMCSA's DataQs Web site. The document is designed primarily to assist FMCSA and State agency DataQs practitioners by providing uniform, consistent, and reliable procedures for reviewing and resolving data quality inquiries. The document delineates best practices, offers tips for implementing these practices, and references a comprehensive resource guide to facilitate data integrity and consistency. The DataQs Users Guide and Manual is expected to evolve and expand as new types of RDRs are presented to FMCSA and the States.

SUMMARY

The SaDIP, the SSDQ map, and FMCSA's review and advice initiatives have contributed to the States making great strides in improving the quality of their truck and bus crash and inspection data collection and reporting. This improvement enhances the ability of both Federal and State governments to make highway planning, investment, and safety enforcement decisions. However, much work remains to be done. The FMCSA continues its support of States' data quality efforts in order to sustain this progress and increase the number of State participants working to improve the collection and reporting of motor carrier crash and inspection data, with the primary goal of improving motor carrier safety.