

The goal of the Federal Motor Carrier Safety Administration (FMCSA) is to reduce the number and severity of large truck-involved crashes through more commercial motor vehicle and operator inspections and compliance reviews, stronger enforcement measures against violators, expedited completion of rulemaking proceedings, scientifically sound research, and effective CDL testing, recordkeeping, and sanctions. The Office of Research and Technology manages research and technology development and deployment programs for the FMCSA.

There are eight major research and technology focus areas: crash causation and profiling; regulatory evaluation and reform; compliance and enforcement; HAZMAT safety and cargo tank integrity; driver training and performance management; driver alertness and fatigue; driver physical qualifications; and car-truck proximity.

Compliance and enforcement concentrates on studies directed toward improving carrier compliance with, and/or enforcement of, existing Federal Motor Carrier Safety Regulations.



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Uniformity of Roadside Safety Inspections of Commercial Vehicles and Drivers on the National Level

Introduction

Over the past 20 years, the number of miles traveled by large commercial vehicles has increased more rapidly than those traveled by passenger vehicles. The safety of these commercial vehicles is an important component of overall traffic safety. This was recognized by the Federal Motor Carrier Safety Administration (FMCSA, formerly the Office of Motor Carriers of the Federal Highway Administration) at the Truck and Bus Safety Summit in Kansas City in March 1995. At that summit, roadside inspections of commercial motor vehicles (CMVs) was an important topic.

The number and percentage of safety violations found relating to CMVs and their drivers in roadside inspections indicates that these inspections are important to overall traffic safety. The Motor Carrier Safety Assistance Program (MCSAP) was created by the United States Congress in 1983 to improve the safety of truck operations and to reduce truck-related crashes and fatalities. The MCSAP agencies find voluntary compliance with safety regulations to be the most effective and lasting way to increase safety. But if enforcement of these safety regulations during roadside inspections is inconsistent, then carriers may remain out of compliance.

To examine the issue of roadside inspection uniformity, the FMCSA initiated a research project to provide practical information to FMCSA, commercial carriers, MCSAP agencies, and the Commercial Vehicle Safety Alliance (CVSA), to guide and improve standardized roadside enforcement of commercial motor vehicle regulations across North America. This tech brief is based on the project final report, *Uniformity of Roadside Safety Inspections of Commercial Vehicles and Drivers on the National Level: Summary and Conclusions*, which is available from the National Technical Information Service.

Purpose

The project had several objectives, including the following:

- Assess the uniformity of roadside safety inspections of CMVs, estimate the magnitude and locations of the problem, and prioritize issues to be resolved.
- Explore the perceptions of uniformity in roadside inspections among researchers, carriers, drivers, inspectors, and law enforcement supervisors, and the factors that may contribute to disparities.
- Document and evaluate agency roadside practices and administrative controls for maximizing uniformity of inspections.
- Promulgate conclusions and recommendations with the greatest potential impact on improving roadside enforcement.



Methodology

Members of the project team began by conducting a review of literature relating to CMV inspections, as well as surveying the MCSAP agencies in all States and territories, and the motor carrier industry to learn practices and perceptions relating to inspections.

Questionnaires directed at the MCSAP agencies were designed to assess the uniformity of roadside inspections of CMVs and drivers across the States, within a State, and even within a specific agency. Surveys distributed to motor carriers were designed to examine safety inspection issues and their consistency from the perspective of the motor carrier. In order to obtain more in-depth information, researchers contacted selected State MCSAP agency directors to conduct follow-up interviews.

After the literature review and surveys, project team members assembled an advisory group including inspectors, regulators, and the motor carrier industry to help guide the project's subsequent activities. The initial meeting of the group took place in Chicago, Illinois on October 14-15, 1998. The group identified priority issues, developed data collection procedures, recommended States for participation, and drafted a tentative schedule for State visits.

The States selected for site visits were Illinois, Arizona, California, Tennessee, Connecticut, Minnesota, and West Virginia. While on site, advisory group members reviewed completed inspection reports, observed the inspection process, and held local industry focus group sessions. After all site visits had been completed, the full advisory group reconvened to discuss their findings, recommendations, and best practices.

Findings

While conducting their field site visits, project team members

observed 253 inspections. The great majority of these inspections were uniformly conducted in accordance with the guidelines established for the North American Standard Inspection (NASI) criteria, and most CMV drivers thought that the inspections were fair. **Table 1** shows the observed cooperation of drivers with the inspection process, as rated by inspectors and observing team members; it also shows the degree of fairness of these inspections, as rated by the drivers. Observer comments did indicate that it is not possible to eliminate individual variance in inspections, such as in the order in which inspection steps are followed and the thoroughness in checking a given item.

Drivers interviewed were generally not aware of what a CMV inspection involved, the levels of inspection, or what out-of-service (OOS) criteria or penalties are. Only 40 percent of drivers were able to explain what a CVSA inspection decal was - the decal given by an inspector when a vehicle or driver has no critical safety violations. And although all observed vehicle inspectors were trained according to the NASI criteria, they are generally not trained or expected to inform drivers about the level of inspection being conducted or to explain the CVSA decal.

Participants in the driver/industry focus group sessions did not consistently identify any problems



State CMV inspectors conducting a roadside vehicle inspection.

Table 1.
Observed Cooperation of Drivers and Fairness of Inspections

DEGREE OF COOPERATION OR FAIRNESS						
	Very High		Very Low			Not Stated
	5	4	3	2	1	
Driver Cooperation						
- from inspector	173	44	10	1	1	24
- from observer	183	53	8	1		8
Fairness of Inspection	222	22	3	1		5
Use of NASI standards*	154	66	25			8

* NASI = North American Standard Inspection criteria. Observers did not rate the compliance with these standards at the first two sites visited.

with uniformity or fairness of inspections for inspections carried out by State-level inspectors; most concerns about the lack of uniformity during the inspection process were addressed to inspections carried out by municipal or county law enforcement agency inspectors.

Recommendations

Based on what was learned from the site visits, the earlier project surveys, and project team deliberations, the team offered recommendations to improve the CMV inspection process generally, and the uniformity of those inspections in particular. These included:

1. Improve partnerships among inspectors/inspecting agencies, drivers/CMV carriers, CMV associations and trade organizations, CVSA, and FMCSA to educate drivers about the roadside inspection process and CVSA decal.
2. Provide adequate equipment and a suitable environment for inspections, including sufficient room for multiple inspections to be carried out simultaneously, room to park out-of-service vehicles, and a desk or table for inspectors and drivers to review paperwork and inspection results.
3. Assure that all inspections continue to be performed in a uniform manner through the implementation of a program that will observe the inspection process and make recommendations for continuing improvement.
4. All States should have regularly scheduled in-service and refresher training for all commercial motor vehicle inspectors. The project team suggests that CVSA develop minimum standards for annual retraining criteria for inspectors.

5. Conduct research to learn more about the role of non-State-agency inspectors in the inspection process, including the number of local agency inspectors, retraining requirements for these inspectors, and guidelines within local agencies as to when, where, and how inspections are conducted.

A complete list of the findings and recommendations is available in the study final report.

Best Practices

In the course of their site visits, team members identified approaches to the CMV inspection process and commercial vehicle safety that merit consideration by other States. While not all of these “best practices” would directly affect the uniformity of inspections, they do offer the potential for improving the inspection process:

Some CMV drivers violate an out-of-service order because they do not fully comprehend what “out-of-service” means, while others consciously disregard the order. The West Virginia Public Service Commission requires drivers who are placed OOS to sign a form that explains penalties for violating an OOS order and acknowledge that they are aware of the penalties involved. The subsequent follow-up showed that only 5 of almost 300 drivers violated an OOS order, as compared to approximately 25 percent previously.

Another best practice, developed by the California Highway Patrol, was developed to enhance communication between the roadside inspector and the CMV driver being inspected. Good communication is important for inspection efficiency, but when multiple vehicles are being inspected at the same site, it is difficult to hear over the truck engines, and a driver

Researcher

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Distribution

This Tech Brief is being distributed according to a standard distribution. Direct distribution is being made to the Service Centers and Divisions.

Availability

The study final report is available from the National Technical Information Service, (703) 605-6000, Order No.: PB2000-104507.

Key Words

roadside inspections; best practices; survey; MCSAP; uniformity; vehicle out-of-service criteria; North American Standard Inspection criteria.

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might hear and obey the instructions of the wrong inspector. To overcome this problem, inspectors with the California Highway Patrol use multichannel, short range portable radios to make driver-inspector communications clearer and more certain.

A comprehensive list of identified best practices, along with contact persons and addresses for more information about these practices, can be found in the study final report.

Conclusion

Project researchers found no evidence of a significant problem with the overall uniformity of CMV inspections. Almost all inspections were performed in compliance with the NASI criteria. Drivers interviewed in the field as well as those participating in the local driver/industry focus group sessions did not identify any significant problems with uniformity or fairness of inspections.

However, there does appear to be a lack of knowledge among drivers about both the levels and practices of roadside safety inspections. The final report suggests that all agencies involved in the MCSAP work toward enhancing the overall knowledge and awareness in the CMV safety inspection program.