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MOTOR CARRIER SAFETY

Additional Research Standards and Truck Drivers' Schedule Data Could Allow More Accurate Assessments of the Hours of Service Rule

Why GAO Did This Study

FMCSA—within the Department of Transportation (DOT)—issues rules to address safety concerns of the motor carrier industry, including on truck drivers' HOS. In July 2013, FMCSA began to enforce three new provisions of its HOS rule. GAO was asked to review a 2014 FMCSA study on the rule, as well as the rule's assumptions and effects. This report (1) compares the study to generally accepted research standards, and (2) identifies the assumptions used to estimate the rule's costs and benefits and the rule's driver-operation, economic, safety, and health effects.

GAO identified research standards that professional associations, academics, and GAO's prior work have used. GAO evaluated the 2014 FMCSA study against these standards. GAO also compared FMCSA's assumptions about how drivers would be affected by the HOS rule against actual drivers' schedule data from 16 for-hire carriers that cover the years 2012 through 2014. These data include information on over 15,000 drivers per year, but are not generalizable to the motor carrier industry as a whole.

What GAO Recommends

GAO recommends that FMCSA adopt guidance outlining agency research standards. FMCSA agreed with GAO's recommendation. GAO also suggests that Congress consider directing DOT to study and report on how electronically collected driver schedule data can be extracted, stored, and analyzed in a way that addresses cost and privacy concerns.

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What GAO Found

GAO found that the January 2014 study issued by the Federal Motor Carrier Safety Administration (FMCSA) to examine the efficacy of its hours of service (HOS) rule—a regulation that governs how many hours truck drivers transporting freight can work—followed most generally accepted research standards. However, FMCSA did not completely meet certain research standards such as reporting limitations and linking the conclusions to the results. For example, by not adhering to these standards, FMCSA's conclusion in the study about the extent to which crash risk is reduced by the HOS rule may be overstated. GAO found that FMCSA has not adopted guidance on the most appropriate methods for designing, analyzing, and reporting the results of scientific research. Without such guidance, FMCSA may be at risk for excluding critical elements in research it undertakes to evaluate the safety of its rules, leaving itself open to criticism.

FMCSA made several assumptions and anticipated certain effects of the HOS rule in the regulatory impact analysis. Specifically, to estimate the economic costs of the rule, FMCSA assumed that some drivers would lose a certain amount of driving and on-duty time and then estimated the amount and cost of the work time lost. Further, FMCSA assumed that reduced work time could increase a driver's opportunity to sleep, leading to safety and health benefits. Assessing the effectiveness of the HOS rule is difficult because of the limited availability of representative driver schedule data (i.e., records of drivers' work hours). Nevertheless, GAO's analysis of a limited sample of available data provides some insight into the rule's effects and the extent to which they aligned with FMCSA's assumptions and estimates. For example, according to GAO's analysis, some drivers at a sample of 16 for-hire carriers who worked the longest hours (over 65 hours per work week) reduced their work hours after the rule went into effect, a finding consistent with FMCSA's assumptions that drivers working over 65 hours were more likely to be affected. However, GAO's analysis found that drivers who worked less than 65 hours per work week also changed their schedules after the rule went into effect, a result not anticipated by FMCSA.

The ability of FMCSA and others to assess the effects of rules, such as the 2011 HOS rule, is impacted by the limited availability of representative driver schedule data. No organization collects or maintains a centralized database with such data that can be generalized to the motor carrier industry as a whole. Collecting schedule data has historically been difficult, but a recent statutory change that requires carriers to electronically record and store these data provides a potential data source for the future. However, before these data can be used for research purposes several challenges would have to be addressed. First, there are statutory limits on the use of these data for purposes other than enforcing motor carrier safety regulations. Additionally, privacy and cost concerns must be resolved before these data could be made available for analysis. According to FMCSA officials, they do not plan to study how to use these data in a way that will address privacy and cost concerns, in part, because of the statutory limits. Given the potential value of these data to future regulatory analysis, it may be important to provide Congress with information on how these data can be extracted, stored, and analyzed while addressing any privacy and cost concerns.