

Why GAO Did This Study

NHTSA's mission is to save lives, prevent injuries, and reduce the economic costs due to traffic crashes. As such, NHTSA is responsible for overseeing vehicle safety, a task made more challenging by the increasingly complex electronics and software used in today's vehicles. NHTSA's oversight faces greater scrutiny after a series of high-profile vehicle recalls that highlighted deficiencies with NHTSA's safety-defect investigation processes.

GAO was asked to examine NHTSA's oversight of safety defects and new automotive technologies. This report addresses: (1) challenges identified for NHTSA's oversight of safety defects, (2) NHTSA's implementation of a new IT system for safety-defect investigations, and (3) how NHTSA is addressing new technologies in its oversight of vehicle safety, among other things. GAO reviewed reports on NHTSA's safety-defect process since 2005, such as reports by the Department of Transportation (DOT) Inspector General and literature from scholarly journals, as well as NHTSA budget requests, reports, and priority plans; compared NHTSA's project-management documents for the CIF system to DOT guidance and other recognized practices for project management; and interviewed NHTSA officials and industry stakeholders.

What GAO Recommends

GAO recommends that NHTSA develop an integrated project-management approach for the CIF as well as an overall schedule to customize the CIF applications for ODI. DOT concurred with the recommendations.

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VEHICLE SAFETY

Enhanced Project Management of New Information Technology Could Help Improve NHTSA's Oversight of Safety Defects

What GAO Found

The National Highway Traffic Safety Administration (NHTSA) faces several challenges in its oversight of vehicle safety defects and has initiated or proposed some actions to address them. Challenges include improving data collection and analysis, providing adequate guidance and standard business processes to the staff who identify and investigate potential vehicle defects, and keeping pace with new technologies. A key step NHTSA is taking to address some of these challenges is implementing a new information technology (IT) system—the Corporate Information Factory (CIF)—to enhance data mining and case management for identifying and investigating potential safety defects. According to NHTSA, some of its proposed actions could require additional resources. Congress has indicated that additional resources would depend on NHTSA's improving how it manages investigating defects.

NHTSA's implementation of its new IT system reflects some recognized project-management practices, like developing plans for managing system requirements and risks, but the agency could better manage the CIF in two areas.

- *Integrated management:* The Office of the Chief Information Officer (OCIO) and Office of Defects Investigation (ODI) have distinct responsibilities for implementing the CIF—the base infrastructure and ODI customizations, respectively. However, the offices have not integrated their CIF project plans as recommended by recognized practices for project management. Integration could benefit both offices—ODI by helping ensure that CIF customizations meet staff needs and are incorporated into their daily work, and OCIO by being able to apply lessons from ODI's customizations to other offices that will be customizing and using the CIF.
- *Project schedule:* While ODI recently created a schedule for an initial set of CIF customizations, it lacks an overall schedule for customizing and releasing CIF software applications. ODI officials said they do not have an overall schedule because they view customization as an ongoing process; that is, as staff understand and learn to better use the CIF, ODI will identify additional customizations. Given the complexity of implementing the CIF, as well as other changes occurring in ODI to address the challenges discussed above, an overall schedule that sequences work and includes milestones would help ODI manage and prioritize already identified customizations, as well as those that may be identified in the future.

NHTSA has taken steps to address new technologies in its oversight of vehicle safety, and its strategic-planning efforts are ongoing. Among these steps, in 2012 NHTSA completed internal roadmaps for research on vehicle electronics, and in 2015 NHTSA created the Vehicle Innovation Team, which aims to identify regulatory and other challenges to increasing vehicle automation. In 2012, a Transportation Research Board study recommended that NHTSA issue a strategic plan to guide key policy decisions related to the scope and direction of the agency's vehicle safety programs, including oversight of new technologies. NHTSA officials told GAO they recently restarted their strategic-planning effort and plan to release a strategic plan for the agency in spring 2016. This plan will be critical for NHTSA in prioritizing and coordinating its initiatives.