

Why GAO Did This Study

Automated vehicles potentially promise transformative benefits in safety, mobility, and other areas. However, the successful development of these vehicles and technologies may pose a range of challenges for policymakers to confront. DOT is the lead federal agency for vehicle safety and road infrastructure.

Recent legislation included a provision for GAO to review automated vehicle policy and DOT's readiness to address challenges. This report addresses: (1) what selected stakeholders and literature identify as potential safety and infrastructure challenges automated vehicles pose for policymakers and (2) DOT's efforts in response to these challenges. GAO reviewed selected literature and interviewed 27 selected stakeholders to identify policy challenges and views on DOT's efforts. GAO judgmentally selected these stakeholders—including state transportation officials, academic experts, and industry representatives—to obtain a wide-range of perspectives and expertise. The results are non-generalizable. GAO also reviewed DOT's policy and program documentation and interviewed agency officials. GAO compared DOT's efforts with leading planning principles identified in prior GAO work and federal internal control standards.

What GAO Recommends

GAO recommends that DOT develop a comprehensive plan to better manage departmental initiatives related to automated vehicles. DOT concurred with the recommendation.

View GAO-18-132. For more information, contact David Wise at (202) 512-2834 or wised@gao.gov.

November 2017

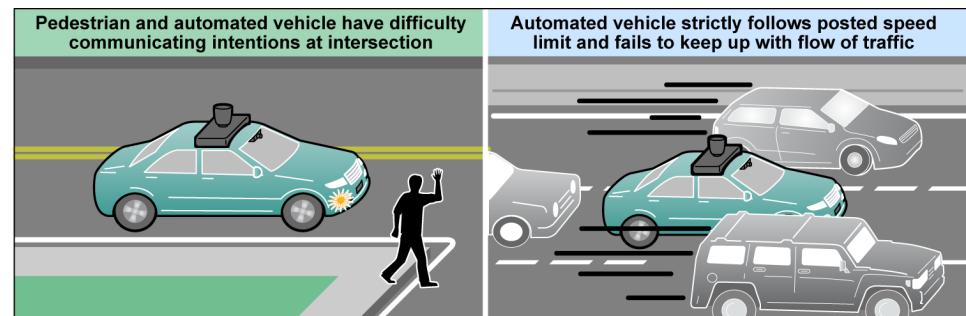
AUTOMATED VEHICLES

Comprehensive Plan Could Help DOT Address Challenges

What GAO Found

Automated cars and light-duty trucks—from vehicles already on the road equipped with driver assistance technologies to fully driverless cars still in development—pose safety and infrastructure challenges for policymakers, according to literature GAO reviewed and stakeholders GAO interviewed. For example, policymakers will need to decide if the current approach to vehicle testing and standards is sufficient to ensure adequate vehicle safety, according to many stakeholders GAO interviewed. Further, policymakers may want to address how automated vehicles interact with other road users (see figure below). Likewise, automated vehicles may require infrastructure changes, and policymakers will need to decide what changes to pursue, while also providing for conventional vehicles since many stakeholders expect conventional vehicles to remain on the roads for decades.

Examples of Potential Driving Scenarios That Could Pose Challenges



Source: GAO | GAO-18-132

The U.S. Department of Transportation (DOT) has made efforts to respond to some of these challenges. For example, DOT's National Highway Traffic Safety Administration has conducted defect investigations and pursued recalls of some driver-assistance technologies. In September 2017, DOT issued new voluntary guidance that provides technical assistance for states and suggests a framework for industry-led safety testing.

However, DOT does not have a comprehensive plan that sets clear goals, that establishes when and how it will act, or that indicates how it will monitor progress. According to officials, DOT recently formed a group to lead policy development in the future, but has not announced a detailed timeframe or scope of work. Without a comprehensive plan, it is unclear whether DOT's efforts are adequately tackling automated vehicle challenges. DOT has an opportunity to enhance federal leadership on automated vehicle challenges and a comprehensive plan could be a first step toward doing so.