

Why GAO Did This Study

Much of the voting equipment acquired with federal funds after the enactment of the Help America Vote Act in 2002 may now be reaching the end of its life span, and some states and local election jurisdictions—which number about 10,300 and generally have responsibility for conducting federal elections—have or are considering whether to replace their equipment. GAO was asked to examine voting equipment use and replacement.

This report addresses (1) the types of voting equipment jurisdictions used for the 2016 general election and their perspectives on the equipment; (2) factors considered when deciding whether to replace equipment and replacement approaches in selected jurisdictions; and (3) stakeholder perspectives on how federal voting system guidelines affect replacing and developing equipment.

GAO surveyed officials from a nationwide generalizable sample of 800 local jurisdictions (68 percent weighted response rate) and all 50 states and the District of Columbia (46 responded) to obtain information on voting equipment use and replacement. GAO also interviewed officials from (1) five jurisdictions, selected based on population size and type of voting equipment used, among other things, to illustrate equipment replacement approaches; and (2) seven voting system vendors, selected based on prevalence of jurisdictions' use of equipment, type of equipment manufactured, and systems certified, to obtain views on federal voting system guidelines. These interviews are not generalizable, but provide insights into jurisdictions' and vendors' experiences.

View [GAO-18-294](#). For more information, contact Rebecca Gambler at (202) 512-8777 or gambler@gao.gov.

ELECTIONS

Observations on Voting Equipment Use and Replacement

What GAO Found

Local election jurisdictions primarily used optical scan and direct recording electronic (DRE), also known as touch screen, equipment during the 2016 general election and were generally satisfied with voting equipment performance. Specifically, on the basis of GAO's nationwide generalizable survey of local election jurisdictions, GAO estimated that jurisdictions with 63 percent (from 54 to 72 percent) of the population nationwide used optical or digital scan equipment as their predominant voting equipment during the election, while jurisdictions with 32 percent (from 23 to 41 percent) of the population nationwide used DREs. In addition, the survey results indicated that accurate vote counting and efficiency of operation were top benefits experienced by jurisdictions for both types of equipment, and storage and transportation costs were a top challenge. Further, GAO estimated that jurisdictions with 93 percent (from 88 to 96 percent) of the population nationwide did not experience equipment errors or malfunctions on a very or somewhat common basis and jurisdictions with 96 percent (from 94 to 98 percent) of the population were very or generally satisfied with the performance of their equipment during the 2016 general election.

GAO identified four key factors that jurisdictions and states consider when deciding whether to replace voting equipment—(1) need for equipment to meet federal, state, and local voting system standards and requirements; (2) cost to acquire new equipment and availability of funding; (3) ability to maintain equipment and receive timely vendor support; and (4) overall performance and features of equipment. When replacing equipment, the five jurisdictions GAO selected for interviews used varying approaches based on their specific needs and resources. For example, Los Angeles County, California, which has a large and diverse electorate, is self-designing its own voting equipment and, according to officials, has incorporated a user-centered approach that prioritizes the needs and expectations of its voters. Lafayette County, Florida, which has a small population, joined a consortium of other small counties to help obtain funding and pool purchasing power to replace its equipment.

The state election officials we surveyed and the seven selected voting system vendors we interviewed, among other stakeholders, had varying perspectives on how the current voluntary federal voting system guidelines affected the replacement and development of voting equipment. These guidelines can be used to test and certify equipment to verify that it meets baseline functionality, accessibility, and security requirements. The stakeholders we surveyed or interviewed generally indicated that the guidelines and their associated testing processes provide helpful guidance for equipment developers, cost savings for states that do not have to duplicate federal testing, and assurance that certified equipment meets certain requirements. However, some of these stakeholders stated that aspects of the guidelines could discourage the development of innovative equipment and limit the choices of voting equipment on the market. The Election Assistance Commission (EAC), which is responsible for developing the federal guidelines, is updating them with stakeholder input and plans to issue a new version in late summer 2018.

GAO incorporated technical comments provided by the EAC and election officials from the selected local jurisdictions and their respective states as appropriate.