

# GAO@100 Highlights

Highlights of [GAO-21-461T](#), a testimony before the Subcommittee on Investigations and Oversight, Committee on Science, Space, and Technology, House of Representatives

## Why GAO Did This Study

The federal workforce is critical to agencies' ability to address the complex social, economic, and security challenges facing the United States. However, across government, mission critical skill gaps are undermining the ability of federal agencies to carry out their missions. Federal agencies face the difficult task of staying apace of advances in science and technology while competing for talent with the private sector, universities, and non-profit research centers. GAO has had long-standing concerns about federal agencies' strategic human capital management, an issue highlighted in GAO's High Risk Series since 2001.

This testimony summarizes GAO's insights based on a wide range of GAO work covering various human capital management- and science and technology-related issues from March 2015 through February 2021. In particular, the statement focuses on (1) workforce planning to help ensure agencies are better positioned to implement their missions; (2) opportunities and challenges to recruiting a diverse, high-qualified science and technology workforce; and (3) factors that can affect the work environment.

For this testimony, GAO selected prior work across human capital management- and science and technology-related topics.

## What GAO Recommends

GAO has made numerous recommendations to address human capital management and other issues covered in this testimony. Federal agencies have implemented some of these recommendations, but have not fully implemented others.

View [GAO-21-461T](#). For more information, contact Candice N. Wright, 202-512-6888, [WrightC@gao.gov](mailto:WrightC@gao.gov)

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## SCIENCE AND TECHNOLOGY

### Strengthening and Sustaining the Federal Science and Technology Workforce

#### What GAO Found

Strengthening human capital management at federal agencies, particularly those with science and technology missions, can help agencies build a diverse, highly qualified, and agile workforce. GAO's past work demonstrates three key areas for strengthening and sustaining the federal science and technology workforce.

**Strategic workforce planning to identify gaps and future needs.** To successfully implement their missions, agencies need to identify current skill gaps and future needs in their workforce, and select the right human capital strategies to address them. However, GAO's prior work has identified science and technology workforce strategic planning challenges that agencies have not fully addressed. For example, in October 2019, GAO evaluated major agencies' implementation of cybersecurity workforce planning strategies for information technology (IT) workers. GAO found that most of the 24 federal agencies had not fully implemented five of the eight key workforce activities that GAO identified because of reasons such as competing priorities and limited resources. GAO recommended that the 18 agencies fully implement the eight key IT workforce planning activities. Thirteen agencies agreed with the recommendation, while the other five expressed a range of views; however, while some agencies have made progress, none have fully implemented the recommendation.

**Improving federal pay and hiring.** Agencies may experience challenges in recruiting and retaining a diverse, highly-qualified workforce due to differences in pay compared to private sector employers and challenges related to the hiring process. Generally, federal agencies have seven broadly available government-wide special payment authorities to help address recruitment and retention challenges. In December 2017, GAO reported that the Office of Personnel Management (OPM) collects data on use of these authorities but had not analyzed how much the authorities help improve recruitment and retention. GAO also reported that the agency may be missing opportunities to promote strategic use of these authorities by providing guidance and tools on assessing effectiveness. Similarly, in August 2016, GAO reported that OPM and hiring agencies had not used hiring data to analyze the effectiveness of hiring authorities. Across these reports, GAO made six recommendations to assess and improve the use of pay and hiring authorities. OPM generally agreed with GAO's recommendations, and has implemented two of the six recommendations, but has not fully implemented the other four.

**Addressing factors that affect the federal work environment.** Factors affecting the working environment may also influence agencies' ability to attract, hire, and retain personnel. For example, GAO reported in September 2020 that individuals who experience sexual harassment are more likely to leave their jobs. Also, in March 2015, GAO reported that impediments to interacting with non-federal scientific peers because, for example, of restrictions on conference participation can be a disincentive to federal employment. Agency officials told GAO that scientists and engineers establish their professional reputations by presenting research at conferences to have their work published and, without such opportunities, researchers may find federal employment less desirable. Addressing such factors could help agencies build and sustain a diverse, highly-skilled science and technology workforce.