

# GAO Highlights

Highlights of [GAO-23-105521](#), a report to the Honorable Roger F. Wicker, United States Senate

## Why GAO Did This Study

Within the Department of Commerce, NIST relies on a highly specialized S&T workforce to support its mission for advancing technology and providing measurement services and standards that promote U.S. innovation and industrial competitiveness. NIST competes with the private sector and academia for talent such as physicists, chemists, and engineers. Agencies across the federal government have struggled to identify skills gaps and the future needs of their scientific and technical staff.

GAO was asked to review NIST's recruitment and retention of S&T staff. This report examines (1) challenges NIST faces in recruiting and retaining a diverse, highly qualified S&T workforce and (2) the extent to which NIST has implemented leading human capital practices to address its challenges.

GAO reviewed NIST documentation and data on its workforce, and interviewed NIST hiring managers and human capital agency officials. GAO also compared NIST practices to selected leading practices in human capital management that relate to NIST's challenges.

## What GAO Recommends

GAO is making three recommendations: that NIST (1) track how often flexibilities have been used—including how often incentive payments have been offered and paid—to evaluate their success, (2) develop a succession planning framework, and (3) develop an agency-wide strategic workforce process. The Department of Commerce concurred with the recommendations.

View [GAO-23-105521](#). For more information, contact Candice N. Wright, 202-512-6888, [WrightC@gao.gov](mailto:WrightC@gao.gov)

February 2023

# NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

## Improved Workforce Planning Needed to Address Recruitment and Retention Challenges

### What GAO Found

The National Institute of Standards and Technology (NIST) has a workforce of approximately 3,400, including a cadre of scientific and technical (S&T) staff. GAO found NIST faces recruiting and retention challenges that affect the entire employee lifecycle for its S&T workforce. Such challenges include:

- **Competition.** NIST faces competition for a highly specialized pool of candidates and declining applications from a postdoctoral program that is a key recruitment pipeline.
- **Pay.** NIST's pay and other flexibilities are not competitive with private sector employers who, in some cases, may offer salaries up to three times higher.
- **Culture.** NIST reports identified gender-related imbalances in career advancement and leadership roles, as well as an unwelcoming environment for women that may cause some to leave.
- **Succession.** NIST has a small, specialized workforce with unique institutional knowledge that is difficult to replace in a timely manner.

NIST has fully implemented two, partially implemented seven, and not implemented one of 10 selected leading practices for managing human capital that GAO reviewed related to the challenges NIST faces. For example, NIST has fully implemented a leading practice on holding management accountable for diversity initiatives. NIST requires supervisors to demonstrate commitment to valuing diversity as part of supervisors' performance appraisals. In other cases, NIST has yet to take action to fully implement other selected leading practice (see table).

NIST uses several flexibilities, such as incentive payments, to keep critical personnel. Yet NIST does not track those or measure the effectiveness of its recruitment and retention incentives to enable a strategic approach to leverage such flexibilities. Further, NIST takes steps to prepare for personnel changes such as tracking retirement eligibility and mentoring staff. However, NIST does not yet have an agency succession planning process and has not yet implemented the Department of Commerce's succession planning framework.

Moreover, NIST does not assess skills gaps or develop strategic workforce plans that link recruiting, succession, or human capital plans to workforce planning efforts. An agency-wide workforce planning process aligned with NIST's strategic goals would help managers ensure the agency's workforce has needed skills and avoids program disruptions that can occur when skills gaps exist.

**NIST Implementation of Selected Leading Practices for Human Capital Management**

<b>Workforce Area</b>	<b>Selected Leading Practice</b>	<b>NIST implementation of leading practices</b>
Recruiting a Specialized Workforce	Develop an agency brand or branding strategies to build credibility with employees and potential applicants.	◐
	Cultivate a diverse talent pipeline by building relationships and developing strategic partnerships with a range of institutions and organizations.	◐
Competing for a Highly Qualified Workforce	Strategically leverage available payment authorities and hiring flexibilities.	◐
	Provide employees with career development and training.	●
Fostering an Inclusive Culture	Hold management accountable for the progress of diversity initiatives.	●
	Use quantitative and qualitative measures to evaluate the effectiveness of the organization's diversity management efforts and the progress it is making in those efforts.	◐
Maintaining Institutional Knowledge	Maintain an ongoing succession planning process for identifying and developing a diverse pool of talent for an organization's potential future leaders.	◐
	Link succession planning and training efforts, such as for leadership development programs that are targeted to help address specific challenges related to diversity, leadership capacity, and retention.	◐
Workforce Planning	Develop strategies and plans to address gaps in competencies and staffing.	◐
	Establish and maintain a strategic workforce planning process.	○

Legend: ○=not implemented ◐ =partially implemented, ●=fully implemented

Source: GAO analysis of National Institute of Standards and Technology (NIST) human capital management practices. | GAO-23-105521.