

# Management Challenges for the National Science Foundation in Fiscal Year 2024





**NATIONAL SCIENCE FOUNDATION**  
**Office of Inspector General**

**MEMORANDUM**

**DATE:** October 13, 2023

**TO:** Dr. Dan Reed  
Chair  
National Science Board

Dr. Sethuraman Panchanathan  
Director  
National Science Foundation

**FROM:** Allison C. Lerner *Allison C. Lerner*  
Inspector General

**SUBJECT:** Management Challenges for the National Science Foundation in Fiscal Year 2024

Attached for your information is our report, *Management Challenges for the National Science Foundation in Fiscal Year 2024*. The *Reports Consolidation Act of 2000* (Pub. L. No. 106-531) requires us to annually update our assessment of the “most serious management and performance challenges facing the agency ... and the agency’s progress in addressing those challenges.” A summary of the report will be included in the National Science Foundation Agency Financial Report.

We appreciate the courtesies and assistance NSF staff provided during the completion of this report.

If you have questions, please contact me at 703-292-7100.

Attachment

# At a Glance

## Management Challenges for the National Science Foundation in Fiscal Year 2024

October 13, 2023



### WHY WE ISSUED THIS REPORT

The *Reports Consolidation Act of 2000* (Pub. L. No. 106-531) requires us to annually update our assessment of the National Science Foundation's "most serious management and performance challenges facing the agency ... and the agency's progress in addressing those challenges."



### WHAT WE FOUND

Each year, we identify NSF's most serious challenges based on our audit and investigative work, knowledge of NSF's operations, independent sources such as U.S. Government Accountability Office reports and NSF's advisory committees, and discussions with NSF senior staff and contractors. This year, we identified eight areas representing the most serious management and performance challenges facing NSF:

- Challenge 1: Overseeing and Managing Risks of Sexual Assault/Harassment in Antarctica
- Challenge 2: Addressing Sexual Harassment in the Scientific Enterprise
- Challenge 3: Increasing Diversity in Science & Engineering Education and Employment
- Challenge 4: Overseeing the United States Antarctic Program (USAP)
- Challenge 5: Overseeing NSF's Funding Portfolio in a Changing Environment
- Challenge 6: Managing Human Capital
- Challenge 7: Mitigating Threats to Research Security
- Challenge 8: Mitigating Threats Posed by the Risk of Cyberattacks

We are encouraged by NSF's progress in its efforts to address critical management and performance challenges. Effective responses to these challenges will promote the integrity of NSF-funded projects, help ensure research funds are spent effectively and efficiently, and help maintain the highest level of accountability over taxpayer dollars.



### AGENCY RESPONSE TO MANAGEMENT CHALLENGES FOR FISCAL YEAR 2023

Following the issuance of this report, NSF will include its Management Challenges Progress Report and its response to *Management Challenges for the National Science Foundation in Fiscal Year 2023* in its Agency Financial Report.

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# Introduction

The National Science Foundation is an independent federal agency that supports fundamental research and education in all the non-medical fields of science and engineering. With a budget of approximately \$8.8 billion (FY 2022), NSF funds about 25 percent of all federally supported basic research at the Nation's colleges and universities, and supports about 200,000 scientists, engineers, educators, and students each year. NSF's goals include advancing the frontiers of knowledge, cultivating a broadly inclusive science and engineering workforce, expanding the scientific literacy of all citizens, building the nation's research capability through investments in advanced instrumentation and facilities, and supporting excellence in science and engineering research and education.

The *Reports Consolidation Act of 2000* (Pub. L. No. 106-531) requires us annually to update our assessment of NSF's "most serious management and performance challenges ... and the agency's progress in addressing those challenges." Each year, we identify these challenges based on our audit and investigative work, knowledge of the Foundation's operations, independent sources such as U.S. Government Accountability Office reports and NSF's advisory committees, and discussions with NSF senior staff and contractors. We identify management challenges as those that meet at least one of the following criteria:

- The issue involves an operation that is critical to an NSF core mission.<sup>1</sup>
- The issue presents a risk of fraud, waste, or abuse to NSF or other government assets.
- The issue involves strategic alliances with other agencies, the Office of Management and Budget, the Administration, Congress, or the public.
- The issue is related to key initiatives of the President.

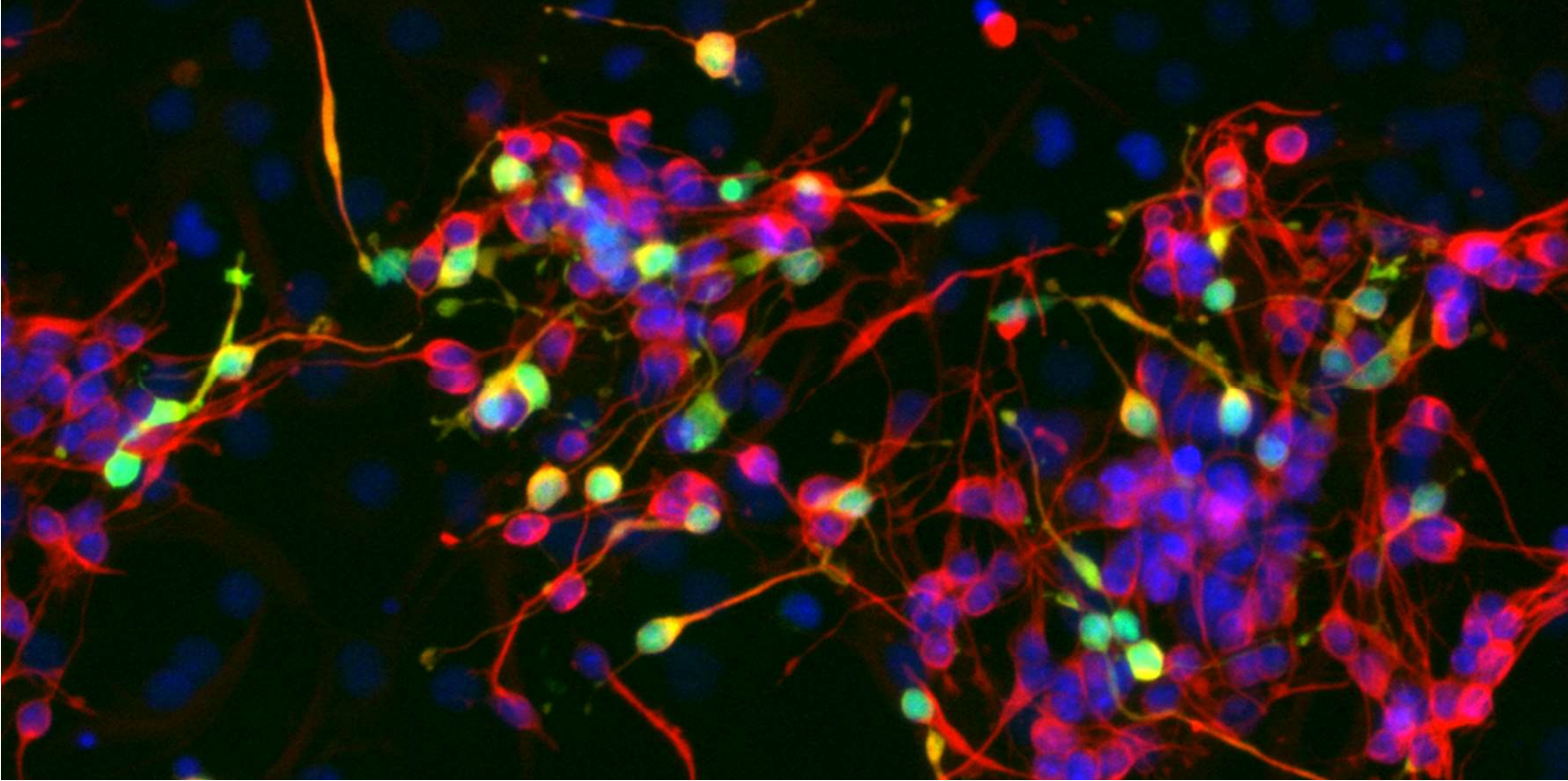
It is important to note that identifying an issue as a "management challenge" does not necessarily mean NSF is having difficulty addressing it; instead, it means we identify the issue as one of the top challenges facing NSF and report on NSF's progress in addressing it, as required by the Act.

This year, we have identified eight areas representing the most serious management and performance challenges facing NSF:

- Overseeing and Managing Risks of Sexual Assault/Harassment in Antarctica
- Addressing Sexual Harassment in the Scientific Enterprise
- Increasing Diversity in Science & Engineering Education and Employment
- Overseeing the United States Antarctic Program (USAP)
- Overseeing NSF's Funding Portfolio in a Changing Environment
- Managing Human Capital
- Mitigating Threats to Research Security
- Mitigating Threats Posed by the Risk of Cyberattacks

This year, we are introducing two new challenge areas. We removed our prior challenge focused on managing the Intergovernmental Personnel Act Program; we instead discuss challenges NSF may face

<sup>1</sup> The *National Science Foundation Act of 1950* (Pub. L. No. 81-507) sets forth the mission: "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes."



Discovery of noncoding ribonucleic acid (RNA) molecule made in a lab, including, among others, an NSF Graduate Research Fellowship recipient. *Credit: Rebecca Andersen, Developmental and Stem Cell Biology Graduate Program, University of California, San Francisco*

with the program in a new challenge, “Managing Human Capital.” We added a new challenge area, “Overseeing and Managing Risks of Sexual Assault/Harassment in Antarctica,” to address issues previously described within other challenge areas and give NSF leadership a fuller picture of the challenges in this area.

In addition, we renamed two prior challenge areas to better reflect the challenges they describe: “Overseeing NSF’s Funding Portfolio in a Changing Environment” expands upon the prior challenge “Overseeing Grants in a Changing Environment,” and “Addressing Sexual Harassment in the Scientific Enterprise” expands upon the prior challenge “Addressing Sexual Harassment in the Academic Community.”

Finally, we have removed the prior-year challenge of “Overseeing NSF-Funded Research Infrastructure.” NSF is developing its capacity to oversee mid-scale research infrastructure projects, drawing upon its experience in the management of major multi-user research facility projects to develop appropriate approaches. However, major facilities and mid-scale projects are inherently risky because the infrastructure is one-of-a-kind and technically complex, and construction and operating costs are high. Accordingly, this area might again prove to be a management challenge for the agency in the future.

NSF has continued to demonstrate its ability to achieve its mission in an ever-changing environment. As the agency moves into FY 2024 and beyond, it is well positioned to address both familiar and new challenges it may face with acuity, agility, and adaptability.



# Challenge 1: Overseeing and Managing Risks of Sexual Assault/Harassment in Antarctica

In August 2022, NSF publicly released the Sexual Assault/Harassment Prevention and Response Final Report (SAHPR report), which it commissioned to examine sexual harassment and sexual assault in the United States Antarctic Program (USAP) community and identify corrective actions.<sup>2</sup> The review determined that “sexual harassment, stalking, and sexual assault are ongoing, continuing problems in the USAP community.” The report highlights a concern that providing effective oversight of awardee compliance may be particularly difficult for NSF in Antarctica and its associated research vessels and field sites due to lack of trust and reporting mechanisms.

Following the release of the SAHPR report, we initiated our ongoing inspection of USAP’s sexual harassment and assault prevention and response. Separately, in March 2023, our office provided NSF with a white paper detailing considerations for an effective reporting and response capability when presented with allegations of sexual assault and stalking.<sup>3</sup> Sexual assault cases present law enforcement challenges even under ordinary circumstances; those challenges are compounded by Antarctica’s distant and sometimes inaccessible location.

NSF has acted to address issues described in the SAHPR report and concerns we identified during our ongoing inspection, including during our joint audit/investigative site visit to McMurdo Station in February 2023. In the 2022-2023 austral summer season, NSF stationed an on-ice victim advocate to support sexual assault victims. In April 2023, NSF established a 24/7 helpline to provide support to members of the USAP community who experience sexual assault or sexual harassment. NSF established a Sexual Assault and Harassment Prevention and Response (SAHPR) Office to provide these resources and others, remove barriers, and provide an independent line of reporting for victims in the USAP. NSF made changes to the Antarctic Support Contract to require additional reporting on SAHPR complaints as well as imposing new requirements on prospective employees. NSF has also planned multiple actions for the 2023-2024 season.

Work remains, however, to ensure USAP participants have access to necessary reporting channels. NSF is coordinating with our Office of Investigations, which will investigate alleged criminal violations covered under the Special Maritime and Territorial Jurisdiction of the United States, including aggravated sexual abuse, sexual abuse, abusive sexual contact, and stalking. OIG special agents began responding, remotely, to concerns raised by individuals in Antarctica in July 2023, and our office is working toward having an on-site presence during future austral summer seasons.

## KEY FACTS

- This issue involves an operation that is critical to an NSF core mission.
- NSF commissioned a report highlighting concerns about providing effective oversight of awardee compliance in the USAP due to lack of trust and reporting mechanisms.
- NSF has taken additional action, such as stationing an on-ice victim advocate, establishing a 24/7 NSF Antarctic Helpline, and making changes to the Antarctic Support Contract to require additional reporting.
- NSF has multiple actions planned for the 2023-2024 austral summer season.
- NSF is coordinating with our office, which will investigate criminal violations covered under the Special Maritime and Territorial Jurisdiction of the United States.

<sup>2</sup> Department of the Interior’s Federal Consulting Group, [NSF/OPP/USAP Sexual Assault/Harassment Prevention and Response \(SAHPR\) Final Report](#), June 22, 2022

<sup>3</sup> NSF OIG, [Law Enforcement Perspectives on Sexual Assault and Stalking Issues Pertaining to the United States Antarctic Program](#), March 7, 2023

## Key Completed Actions

- Issued NSF Director Statement on USAP SAHPR Report and Follow-on Actions.
- Initiated NSF Action Plan in response to SAHPR report.
- Issued NSF OD-22-18, *Establishment of a Director's Task Force for Implementation of Measures to Combat Sexual Assault and Harassment in the United States Antarctic Program (USAP)* to implement the Action Plan.
- Hosted a series of listening sessions at McMurdo and virtually for current and former USAP participants to get community feedback on sexual assault/harassment prevention and reporting.
- Established SAHPR Office to provide access to resources and guidance to help prevent and address sexual assault and harassment.
- Stationed an on-ice victim advocate to support sexual assault victims in the 2022-2023 austral summer season.
- Established an NSF Antarctic Helpline to provide support to members of the USAP community who experience sexual assault or sexual harassment.
- Collaborated with NSF OIG on outreach materials for upcoming site visits to McMurdo Station.
- Met with U.S. Equal Employment Opportunity Commission and Office of Federal Contract Compliance Programs.
- Made changes to the Antarctic Support Contract to require more frequent and additional reporting on complaints, and to improve vetting procedures for potential employees.
- Formed joint NSF/NSF OIG working group to coordinate on law enforcement response.

## Key Planned and Ongoing Actions

- Planning USAP Climate Survey to establish baseline data on sexual assault/sexual harassment incidence rate and culture/environment measures.
- Enacting USAP Accountability Framework, including meetings/coordination with federal and academic partners as well as contractors.
- Enhancing training including new training resources for supervisors and staff, prevention toolkit, safety planning resources, and training on how to receive and respond to a disclosure.
- Conducting on-ice, in-person outreach and education.
- Coordinating with NSF OIG on law enforcement response.





## Challenge 2: Addressing Sexual Harassment in the Scientific Enterprise

A 2018 National Academies of Sciences, Engineering, and Medicine report identified that “... more rapid and sustained progress in closing the gender gap in science, engineering, and medicine is jeopardized by the persistence of sexual harassment and its adverse impact on women’s careers in our nation’s colleges and universities.”<sup>4</sup> The report identified that more than 50 percent of women faculty and staff and 20–50 percent of women students encounter or experience sexual harassment in academia.<sup>5</sup> The *CHIPS and Science Act of 2022*, which includes findings from the 2018 National Academies report, requires NSF to examine “factors contributing to, and consequences of, sex-based and sexual harassment affecting individuals in the STEM workforce” and “approaches to reduce the incidence and negative consequences of such harassment.”<sup>6</sup>

NSF has acted to combat harassment anywhere NSF-funded science or education is conducted, including in remote sites such as Antarctica, as previously described. NSF issued statements to the academic community that harassment will not be tolerated. It also implemented an award term and condition, effective in October 2018, requiring awardee organizations to notify NSF of findings or determinations of sexual harassment, other forms of harassment, or sexual assault by an NSF-funded Principal Investigator (PI) or any co-PI.<sup>7</sup>

According to its *Proposal & Awards Policies & Procedures Guide*, NSF expects all research organizations to establish and maintain clear and unambiguous standards of behavior to ensure harassment-free workplaces wherever science is conducted.

Effective January 2023, for each proposal that includes research off-campus or off site, the proposing organization must complete a certification that the organization has a plan in place that describes how harassment and other abusive or unwelcome behavior at that site will be addressed. As previously

### KEY FACTS

- This issue involves an operation that is critical to an NSF core mission.
- Recent reports and legislation indicate harassment is pervasive in institutions of higher education and jeopardizes more rapid and sustained progress in closing the gender gap in STEM.
- NSF has taken action, such as implementing an award term and condition about reporting harassment or sexual assault and setting expectations that research organizations establish and maintain clear and unambiguous standards of behavior.
- Harassment and sexual assault are still prevalent challenges facing the research community, and additional steps remain.
- An independent accounting firm, under a contract with our office, is evaluating whether recipient institutions’ policies about harassment comply with relevant NSF policies.

<sup>4</sup> National Academies of Sciences, Engineering, and Medicine, [Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine](#). Benya FF, Widnall SE, Johnson PA, editors. Washington, DC: National Academies Press (US), June 2018.

<sup>5</sup> Ibid.

<sup>6</sup> Pub. L. No. 117-167

<sup>7</sup> Specifically, the term and condition requires notification of (1) any findings/determinations regarding the PI or any co-PI that demonstrates a violation of organizational policies or codes of conduct, statutes, regulations, or executive orders relating to sexual harassment, other forms of harassment, or sexual assault, and/or (2) if the PI or any co-PI is placed on administrative leave or if any administrative action has been imposed on the PI or any co-PI by the organization relating to any finding/determination of an investigation of an alleged violation of grantee policies or codes of conduct, statutes, regulations, or executive orders relating to sexual harassment, other forms of harassment, or sexual assault.

discussed, NSF also established a SAHPR Office to provide access to resources and guidance to help prevent and address sexual assault and harassment.

However, harassment and sexual assault are still prevalent challenges facing the research community, and additional steps remain. In a 2023 report about NSF's vetting of individuals hired under the *Intergovernmental Personnel Act* (IPAs), we shared that only 6 of the 21 NSF-funded organizations we surveyed had policies or procedures for notifying NSF of employment status changes, such as administrative leave due to sexual harassment, as NSF requires.<sup>8</sup> We also reported NSF did not have a separate step in the IPA vetting process to address harassment-related issues. As a result of our audit, in October 2023, NSF will begin requiring IPAs' home organizations to notify NSF of any harassment-related findings or determinations. In September 2023, an independent public accounting firm, under a contract with us, began an engagement to evaluate whether recipient organizations' policies about harassment and/or sexual assault comply with relevant NSF terms, conditions, and policies.

As the primary source of federal academic support in many science and engineering fields, it is imperative that NSF continue working to address harassment and undertake prevention and response efforts. In addition, as outlined in its Equity Action Plan, NSF's commitment to creating a safe and inclusive environment will help advance its strategic goal of increasing participation in the STEM enterprise.<sup>9</sup>

### **Key Completed Actions**

- Implemented a term and condition requiring the awardee organization to notify NSF of findings or determinations of sexual harassment, other harassment, or sexual assault.
- Established a SAHPR Office to coordinate communication, ensure matters are appropriately referred, and provide access to resources and guidance to help prevent and address sexual assault and harassment.
- Established [saferscience@nsf.gov](mailto:saferscience@nsf.gov) as the single point of communication on reports, complaints, or questions for the community.
- Updated the *Proposal & Awards Policies & Procedures Guide* (NSF 23-1) to require the proposing organization complete a certification that the organization has a plan for creating and maintaining safe and inclusive working environments for off-campus and off-site research for that project.
- Issued *Office of Equity and Civil Rights Bulletin No. 23-02: Sexual Harassment Reporting* to reiterate the responsibility of all NSF employees to swiftly report sexual harassment.
- Added a certification requirement that proposals that include off-campus or off-site research must also have a plan in place to address harassment and abusive behavior.
- Developed resources focused on preventing harassment, establishing effective means for reporting, and promising practices for the recipient community.
- Issued a Request for Information (RFI) to identify contract vendors for SAHPR prevention/reporting/consulting/education; conducting market research meetings with contract vendors in field of sexual misconduct prevention and response.
- Issued a "Dear Colleague Letter" (an announcement to the research community) that explicitly encourages proposals that address harassment.

<sup>8</sup> NSF OIG Report No. 23-2-003, [Audit of NSF's Vetting Process for Individuals Assigned Under the Intergovernmental Personnel Act](#), January 9, 2023

<sup>9</sup> Ibid, and U.S. National Science Foundation, [2022-2026 Strategic Plan](#), [Agency Equity Action Plan](#)

## **Key Planned and Ongoing Actions**

- Evaluating existing support services for the USAP, such as the Helpline and victim advocate, for broader use.
- Implementing a requirement for IPAs' home institutions to notify NSF of any harassment-related findings or determinations.
- Collaborating with awardees, federal agencies, and international organizations that support the research enterprise.
- Engaging with students, staff, and faculty at academic institutions on current gaps and promising practices in field research.



## Challenge 3: Increasing Diversity in Science & Engineering Education and Employment

NSF, the National Science Board (NSB), the President, and Congress have prioritized increasing diversity in science, technology, engineering, and mathematics (STEM) education and employment.<sup>10</sup> NSF's January 2023 report, *Women, Minorities, and Persons with Disabilities 2023*, indicates that these groups remain underrepresented in STEM.<sup>11</sup>

The NSB issued a statement<sup>12</sup> on racism in science and engineering and approved an NSB-NSF commission on merit review to determine, among other things, if the existing criteria fully empowered diverse talent participation in STEM. A report from the commission is due in 2024. In June 2023, it issued a digest with trends in proposals, awards, and funding rates by self-reported information on gender, ethnicity, race, and disability.<sup>13</sup> Such statistics help track outcomes.

NSF posts its Broadening Participating Portfolio on its website to inform stakeholders of applicable research opportunities. It appointed a Chief Diversity and Inclusion Officer in January 2023. NSF also tracks progress in achieving its Agency Priority Goal to improve representation in the scientific enterprise.<sup>14</sup> In 2024, NSF is to provide to the NSB the results of two pilots to foster diversity.

In February 2023, the White House issued Executive Order (EO) 14091, which requires agencies to create an Agency Equity Team, submit an Equity Action Plan to the Office of Management and Budget, and update the plan annually.<sup>15</sup> NSF had already created its agency equity team and developed an Agency Equity Action Plan in response to 2021's EO 13985.<sup>16</sup> The Plan has five focus areas and includes methods to track progress, long-term success characteristics, and accountability procedures.

The CHIPS and Science Act also requires outreach to underserved populations and broadened participation in major research awards. The Act established targets for NSF funding to institutions in its

### KEY FACTS

- This challenge involves an operation that is critical to an NSF core mission.
- Increasing diversity in STEM is a top priority of NSF, the NSB, the President, and Congress.
- Greater participation in STEM by underrepresented groups is key to U.S. economic competitiveness worldwide and to national security.
- Women, minorities, and persons with disabilities remain underrepresented in STEM.
- The CHIPS and Science Act requires NSF to address underrepresentation in STEM.
- NSF has created an Equity Ecosystem framework to broaden participation in STEM, ensure equity in NSF program delivery, and promote diversity, equity, inclusion, and access in the NSF workforce.

<sup>10</sup> See National Science Foundation, [2022-2026 Strategic Plan](#) and [NSF Diversity, Equity, Inclusion and Accessibility \(DEIA\) Strategic Plan 2022-2024](#); National Science Board, [Vision 2030](#), May 2020; [Biden-Harris, Management Agenda Vision](#); Relevant Executive Orders: [13985](#), [13988](#), [14020](#), [14035](#), [14091](#); [Pub. L. No. 117-167](#)

<sup>11</sup> National Center for Science and Engineering Statistics (NCSES), 2023. [Diversity and STEM: Women, Minorities, and Persons with Disabilities 2023](#). Special Report NSF 23-315. Alexandria, VA: National Science Foundation.

<sup>12</sup> [NSB 20-22](#)

<sup>13</sup> [NSB 2023-14](#)

<sup>14</sup> See [quarterly progress reports](#).

<sup>15</sup> [Executive Order 14091](#), *Further Advancing Racial Equity and Support for Underserved Communities through the Federal Government*

<sup>16</sup> National Science Foundation, [Agency Equity Action Plan](#)

Established Program to Stimulate Competitive Research (EPSCoR) jurisdictions of 15.5 percent in FY 2023 increasing to 20 percent in FY 2029.

NSF has continued to prioritize its commitment to stakeholder engagement in its efforts to promote opportunities everywhere, by identifying and addressing individual, institutional, and geographic barriers to innovation, partnerships, and opportunities in STEM. NSF held listening sessions and roundtables with Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Tribal Colleges and Universities (TCUs). Such outreach has helped NSF engage the scientific community on equity issues at all academic levels, including students, senior scientists and engineers, educators, and administrators — all critical steps in its efforts to increase participation in the STEM enterprise.

### **Key Completed Actions**

- Appointed a Chief Diversity and Inclusion Officer.
- Held listening sessions and roundtables with HBCUs, HSIs, and TCUs.
- Held listening sessions with Tribal Leaders.
- Included Indigenous community acknowledgments as part of its programmatic agreements for some facilities.
- Issued NSF Diversity, Equity, Inclusion and Accessibility (DEIA) Strategic Plan 2022-2024.
- Issued a Study of Anti-Harassment Policies, Guidelines, and Communications.
- Issued an EPSCoR Study.
- Initiated the Growing Research Areas for Nationally Transformative Equity and Diversity (GRANTED) program to support STEM at emerging and underserved research entities.
- Piloted Analytics for Equity Initiative.
- Submitted an Agency Equity Action Plan to the Domestic Policy Council and the Office of Management and Budget.

### **Key Planned and Ongoing Actions**

- Implementing NSF's DEIA Strategic Plan.
- Implementing the Agency Equity Action Plan.
- Addressing recommendations in the staff-led Racial Equity Task Force Report.
- Addressing recommendations in EPSCoR reports.
- Tracking quarterly progress in achieving the Agency Priority Goal to improve representation in the scientific enterprise.
- Continuing to host listening sessions and roundtables, including on campuses of Minority Serving Institutions.
- Continuing to fund programs to increase diversity, such as the Louis Stokes Alliances for Minority Participation, Hispanic-Serving Institutions Program, Historically Black Colleges and Universities Excellence in Research, Tribal Colleges and Universities Program, and Organizational Change for Gender Equality in STEM Academic Professions (ADVANCE).
- Implementing CHIPS and Science Act requirements.
- Evaluating Merit Review as a factor in increasing diversity.



## Challenge 4: Overseeing the United States Antarctic Program (USAP)

NSF, through the USAP, manages U.S. scientific research in Antarctica. Antarctica's remote location, extreme environment, and the short period of time each year during which the continent is accessible present challenges above and beyond those typically encountered for domestic science operations.<sup>17</sup>

### Closeout and Recompetition of the Antarctic Support Contract

Leidos Innovations Corporation holds the Antarctic Support Contract (ASC) for USAP logistical support. It is NSF's largest and most visible contract, valued at \$2.3 billion over 13 years. Through this and other contracting vehicles, NSF is also conducting a long-range infrastructure investment program across the program, including the three U.S. Antarctic stations (McMurdo, Palmer, and South Pole). The Office of Polar Programs (OPP) monitors performance of the ASC, with several other NSF offices collaborating to manage the USAP more broadly. Managing the ASC is complex and requires a strong cost monitoring program, oversight of deliverables and deadline requirements, and appropriate consideration of risks.

The contract with Leidos Innovations Corporation as the prime contractor for logistical support expires in March 2025. Staffing changes, hiring challenges, and design errors related to the Antarctic Infrastructure Modernization for Science (AIMS) project have affected the timeline and will push some components of the project beyond March 2025. NSF has also discovered issues with Leidos' Earned Value Management System (EVMS),<sup>18</sup> and cannot accept its EVMS data for the AIMS project until Leidos makes necessary adjustments. These issues will need to be resolved prior to the contract closeout process. It is also imperative that NSF obtain timely audits of the ASC costs claimed to NSF by Leidos to ensure the costs claimed are allowable, allocable, and reasonable. These audits are an important part of the contract closeout process. When the contract is recomputed, NSF will need to ensure prospective audit contractors are qualified and their proposed costs are reasonable. Having sufficient, knowledgeable procurement staff to manage a procurement of this magnitude will also help NSF undertake this large procurement effort.

### Construction Delays and Deferred Science

NSF paused on-site construction work for the AIMS project at McMurdo in March 2020 due to the COVID-19 pandemic, and construction personnel were not deployed to McMurdo for the 2020–2021 and 2021–

### KEY FACTS

- This challenge involves an operation that is critical to an NSF core mission.
- Antarctica's environment presents unique operating and contract monitoring challenges.
- The ASC is NSF's largest and most visible contract, valued at \$2.3 billion over 13 years. It expires in March 2025.
- NSF is undertaking a long-range infrastructure modernization project.
- Construction was delayed and science deferred due to the onset of the pandemic and other factors. NSF will prioritize already-funded science projects as much as possible to address the backlog.
- Ensuring seasonal employees are appropriately vetted prior to deployment remains a challenge.

<sup>17</sup> Please see Management Challenge 1: Overseeing and Managing Risks of Sexual Assault/Harassment in Antarctica for more details on managing this challenge facing the USAP community.

<sup>18</sup> EVMS is a project management tool to measure the value of work accomplished in a given period and compare it with the planned value of work scheduled for that period and the actual cost of work accomplished. Its purpose is to integrate a project's cost, schedule, and technical efforts for management purposes and provide reliable data to decision makers.



An aurora australis over the IceCube Neutrino Observatory at the South Pole. IceCube is supported by NSF.  
Credit: Yuya Makino, IceCube/NSF

2022 seasons. Construction of the Lodging Building, Vehicle Equipment and Operations Center (VEOC), and the Information Technology and Communications (IT&C) primary addition resumed in McMurdo this past 2022-2023 season. On-ice construction will continue in the 2023-2024 season with a focus on meeting near-term needs and improving critical infrastructure at McMurdo. Unfunded parts of AIMS will be considered for incorporation into the longer-term Antarctic Infrastructure Recapitalization (AIR) program portfolio of USAP infrastructure projects.

For the 2022-2023 season, delays in early-season cargo and passenger movements as well as COVID management protocols affected OPP's ability to support as much of the already-deferred projects as anticipated. For the next three field seasons (August 2023 through March 2026), NSF will prioritize already-funded science projects to the greatest extent possible to address the backlog of funded projects.

### **Information Security and Vetting of Contractors**

NSF also continues to address recent USAP information security audit findings. These findings,<sup>19</sup> first identified in FY 2019, demonstrate the extended time needed to fully enact security measures for the USAP network<sup>20</sup> consistent with those of NSF. OPP is working to address audit recommendations related to incident logging and monitoring, as well as implementation of Personal Identity Verification (PIV) and multifactor authentication (MFA) for USAP contractors. However, due to the challenges of operating in

<sup>19</sup> NSF OIG Report No. 21-2-002, *Audit of NSF's Information Security Program for FY 2020*, November 20, 2020

<sup>20</sup> The USAP network is a government-owned, contractor-operated network that is independent and separate from the NSF headquarters network, merit review systems, and data.

this remote environment and the time necessary to implement improvements resulting from changes to USAP contracts, the USAP remains at an increased risk of negative impacts to USAP personnel, systems, and data.

In 2022, we reported that NSF did not ensure all ASC contractors were onboarded and vetted in accordance with NSF requirements; instead, NSF relied on the contractor's internal vetting processes, which are less rigorous than the minimum level of investigation.<sup>21</sup> Since this report, OPP has modified its process to follow federal requirements for vetting and credentialing contractors that require elevated access to USAP systems and data. NSF also issued ASC contract modifications to require the contractor's compliance with NSF vetting process. Though OPP is submitting seasonal contractors to NSF for vetting, ensuring seasonal employees are appropriately vetted prior to deployment remains a challenge.

## **Occupational Health and Safety**

As we previously reported, Antarctica's extreme environment and relative isolation challenge human health and wellness.<sup>22</sup> In August 2023, we began an inspection of NSF's oversight of USAP occupational health and safety. As part of our inspection, we will assess Leidos' performance for ensuring the overall occupational health and safety for the USAP, and review policies and procedures related to food safety, fire safety, and waste management.

## **Key Completed Actions**

- Determined the award type (contract) for the ASC replacement award.
- Corrected the VEOC design.
- Added additional resources to support the increased vetting workload.
- Implemented a Security Information and Event Monitoring capability for USAP.
- Implemented PIV credentials and enforcement for ASC contractors in the USAP Denver-based office.
- Established a more robust Acceptance of Risk program for the USAP.

## **Key Planned and Ongoing Actions**

- Hiring a Program Manager to coordinate efforts related to entering into an agreement for Antarctic Science and Engineering Support as a follow-on arrangement to the ASC.
- Obtaining incurred cost audits of the Leidos ASC contract.
- Assessing the impacts of the VEOC construction delay.
- Monitoring AIMS via the NSF Office of the Director's Watch List.
- Prioritizing already-funded science projects to address the backlog of funded projects.
- Continuing prioritization of PIV card issuance and alternative MFA solution when PIV credentials cannot be issued.
- Ongoing monthly cybersecurity risk discussion with USAP leadership.
- Continuing efforts to meet NSF vetting requirements for contractors.

<sup>21</sup> NSF OIG Report No. 22-6-004, [NSF Vetting of United States Antarctic Program Contractors](#), March 18, 2022

<sup>22</sup> NSF OIG Report No. 15-2-009, [Audit of Health and Safety in the U.S. Antarctic Program](#), July 2, 2015





## Challenge 5: Overseeing NSF's Funding Portfolio in a Changing Environment

The CHIPS and Science Act, enacted August 9, 2022, formally established the Technology, Innovation, and Partnerships (TIP) directorate — NSF's first new directorate in more than 3 decades — and created several new requirements for NSF related to research security, broadening participation in the research enterprise, and strengthening STEM education. It also provided NSF with the authority to use new types of award instruments.

NSF is managing these new requirements while facing an uncertain fiscal environment. The CHIPS and Science Act authorized NSF's budget to more than double within 5 years, to nearly \$19 billion. The actual funding environment has been more constrained, with NSF receiving an overall budget of \$9.9 billion in FY 2023 (20 percent less than what was authorized) and NSF requesting an overall budget of \$11.4 billion in FY 2024 (37 percent less than what was authorized). As total appropriated funding may continue to fall short of authorized amounts, NSF will have to continue to overcome uncertainty and fiscal challenges to accomplish the various requirements of the CHIPS and Science Act.

In addition, TIP represents a transformational change to NSF's traditional mission by expanding its emphasis on applied and use-inspired research and establishing partnerships across a broad array of stakeholders, such as through its Regional Innovation Engines program (NSF Engines), which aims to grow and sustain regional innovation. Each NSF Engine can receive up to \$160 million over a 10-year period to support the development of diverse regional coalitions of researchers, institutions, companies, and civil society to conduct research and development with economic and societal impacts. New award instruments, an expanded mission, and an increase — even if less than anticipated — in funding will bring inherent challenges in ensuring proper stewardship and accountability of award funds.

NSF has long been successful in achieving its mission by funding promising scientific research through grants and cooperative agreements. However, with the newly granted authority to use other transaction agreements, NSF is reevaluating its processes for ensuring the consistent and proper selection of award instruments. Available award instruments include — as appropriate and consistent with law — not only grants, cooperative agreements, and other transaction agreements, but also contracts and other arrangements. The risks and challenges associated with expanding the use of alternative funding vehicles are further heightened by an increase in the expected number of award recipients without prior NSF funding history.

NSF has taken action to prepare for these challenges and position itself to manage the associated risks in an effective manner. For example, NSF's Enterprise Risk Management program provides NSF with a

### KEY FACTS

- This challenge involves an operation that is critical to an NSF core mission. It also presents a risk of fraud, waste, or abuse of NSF or other government assets.
- The CHIPS and Science Act formally established the TIP Directorate, created new requirements related to increasing diversity in STEM, and authorized NSF to use new funding instruments.
- The Act authorized NSF's budget to more than double within 5 years, to nearly \$19 billion, but to date the actual funding environment has been more constrained.
- TIP expands NSF's emphasis on applied and use-inspired research.
- NSF's Enterprise Risk Management gives NSF a way to monitor expanded risks associated with these changes.



Collection of a coral sample as part of a first-time study on the genetics of corals from the Northern Mariana Islands, supported in part by an NSF EPSCoR award.

*Credit: Photo courtesy University of Guam*

mechanism to monitor risks related to the increasing number of award recipients without prior NSF funding history and NSF's increased use of partnerships. Additionally, NSF has developed coalitions and partnerships both internally and externally to help ensure efficient and effective use of new award instruments. Managing these broad and wide-ranging risks will be critical for NSF to execute its mission effectively and continue to ensure proper stewardship and accountability of award funds.

### **Key Completed Actions**

- NSF established the Strategy, Engagement, and Consultation Group to help meet increased funding targets for EPSCoR jurisdictions.
- NSF conducted pre-award accounting and financial capability reviews of potential Type-1 NSF Engines Development Awards recipients.
- NSF implemented new *Selection of Award Instrument* Standard Operating Guidance (SOG) to facilitate the proper selection of award instruments based on guiding authorities.
- NSF established a CHIPS and Science Executive Steering Group to focus the agency strategy and near-term implementation activities for CHIPS and Science, facilitate knowledge sharing, coordinate legislative requirements, and develop strategies for implementing CHIPS and Science Act requirements within appropriated resources.

### **Key Planned and Ongoing Actions**

- NSF is evaluating current risk assessment and advanced monitoring site visit and desk review practices and assessing potential changes.
- NSF is using the Enterprise Risk Management process to evaluate current monitoring and oversight of award recipients, to include new awardee types.
- NSF is continuing to monitor portfolio composition and potential increases of small and mid-size award recipients, as well as emerging new partnerships.



## Challenge 6: Managing Human Capital

One of the priorities of the President's Management Agenda is strengthening and empowering the federal workforce.<sup>23</sup> The Agenda Vision notes that to do so, federal agencies must have "high employee engagement, a commitment to respect workers' right to organize and bargain collectively, and strong systems to hire, retain, and develop the people needed to deliver agency missions."<sup>24</sup>

NSF has demonstrated its ability to engage its employees. Federal Employee Viewpoint Survey (FEVS) results indicate NSF continues to maintain progress in employee engagement and employee satisfaction, and according to the Partnership for Public Service, NSF is a top-five place to work in the federal government.<sup>25</sup>

NSF continues to evaluate how best to modernize how it works while strengthening relationships and personal interactions. In September 2023, the Office of the Director and AFGE Local 3403 jointly announced the launch of NSF's *Workspace Management Policy* and *Telework and Remote Work Policy* and expressed a joint commitment to learning and continuing dialogue as the work of implementing the new hybrid work model continues.

Another defining characteristic of NSF's human capital management strategy continues to be its use of temporary staff, which includes both those brought on through authority provided by the *Intergovernmental Personnel Act*, known as IPAs, and those employed through NSF's own Visiting Scientist, Engineer, and Educator (VSEE) program. These individuals — referred to as IPAs or rotators — bring fresh perspectives from all fields of science and engineering to support NSF's mission.

NSF has taken action to respond to the findings and recommendations that we identified in our 2023 report titled *Audit of NSF's Vetting Process for Individuals Assigned Under the Intergovernmental Personnel Act*.<sup>26</sup> We reported that NSF did not always ensure IPA candidates met all program eligibility requirements or verify IPAs' salary and employment history prior to assignment, and did not update its personnel security and suitability review process to address risks associated with foreign influence. NSF has taken, and continues to take, corrective action to address the report's recommendations. Appropriately administering and monitoring its rotating workforce remains an ongoing risk within NSF's broader human capital management plan, given the program's size and complexity.

In addition, NSF updated its policy on administratively determined (AD) pay bands in September 2023 after confirming with the Office of Personnel Management and the U.S. Department of Justice that NSF's

### KEY FACTS

- This issue is related to key initiatives of the President.
- NSF continues to maintain progress in the areas of employee engagement and employee satisfaction.
- NSF, along with AFGE Local 3403, announced NSF's Workspace Management Policy and Telework and Remote Work Policy.
- NSF has strengthened its management of rotators, but risks remain given the IPA program's size and complexity.
- Significant growth in staffing levels, including in its IPA program, may challenge NSF's ability to hire, vet, and onboard staff efficiently and effectively.

<sup>23</sup> [Workforce Priority | President's Management Agenda | Performance.gov](#)

<sup>24</sup> See [President's Management Agenda](#) and [Strengthening and Empowering the Federal Workforce](#)

<sup>25</sup> National Science Foundation, [Federal Employee Viewpoint Survey \(FEVS\) Results](#)

<sup>26</sup> [OIG Report No. 23-2-003](#), January 9, 2023

AD pay bands are subject to the pay limitations contained in 5 U.S.C. § 5373, and that NSF's pay levels exceeded the statutory cap on basic pay with locality. In January 2024, NSF will make adjustments for any position over the Executive Level III max, and no new hires as of September 2023 will be above the statutory cap.

Lastly, NSF has established systems for hiring, retaining, and developing people; however, it is experiencing growth in staffing levels, which may challenge its ability to hire, vet, and onboard staff in an effective, efficient manner. In NSF's FY 2024 Budget Request to Congress, the total number of federal employees was expected to increase from 1,516 in FY 2022 to 1,651 in FY 2023, a 9 percent increase.<sup>27</sup> NSF also estimated an increase in IPAs from 214 full-time equivalents to 267, a 25 percent increase, between FY 2022 and FY 2023. NSF will have to adeptly manage the operational and managerial challenges such growth can introduce.



NSF Headquarters in Alexandria, VA.  
Credit: Maria B. Barnes/NSF

### **Key Completed Actions**

- Issued Workspace Management Policy and Telework and Remote Work Policy.
- Held virtual office hours to inform and engage staff to discuss new hybrid model of work.
- Initiated corrective actions related to NSF OIG audit report on vetting of IPAs.
- Issued OD 23-17, *Update on Administratively Determined Pay Bands*.

### **Key Planned and Ongoing Actions**

- Continuing to engage with AFGE Local 3403 and employees on the hybrid work environment and related policies.
- Continuing to complete corrective actions related to NSF OIG audit report on the vetting of IPAs.

<sup>27</sup> National Science Foundation, [NSF FY 2024 Budget Request to Congress](#)



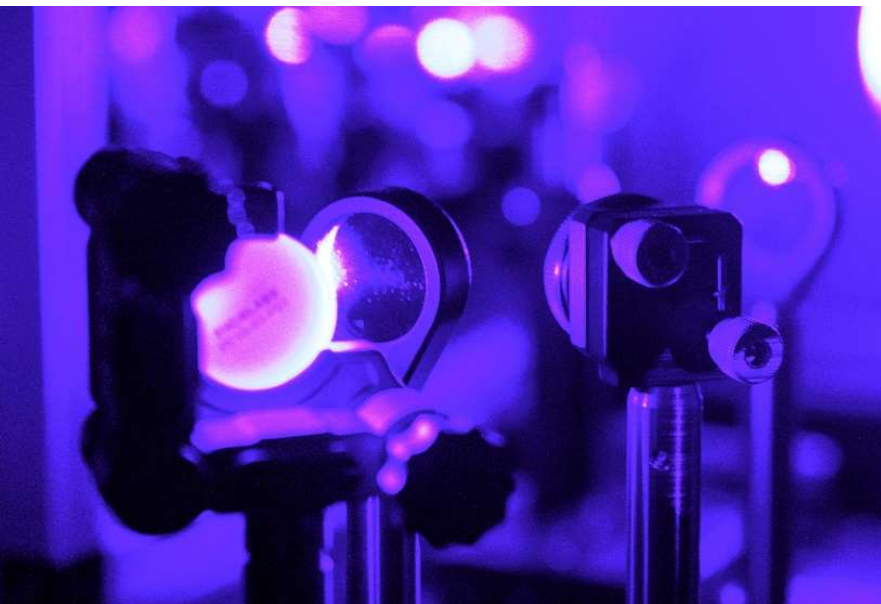
## Challenge 7: Mitigating Threats to Research Security

Safeguarding the U.S. research enterprise from threats of inappropriate foreign influence continues to be of critical importance. Although significant challenges remain, U.S. funding agencies and academia have made progress in combating malign foreign influence, while maintaining an open research environment that fosters collaboration, transparency, and the free exchange of ideas.

NSF, and other agencies that fund research, continue to face challenges from foreign talent recruitment programs. According to the Office of Science and Technology Policy, a foreign government-sponsored talent program is an effort directly or indirectly organized, managed, or funded by a foreign government to recruit science and technology professionals in targeted fields. Nondisclosure of relationships with any such program adversely affects NSF decision-making on proposals. Although some of these programs are legitimate, many encourage or direct unethical and criminal behaviors, including the deliberate nondisclosure of the recruit's foreign position and associated foreign scientific funding. Agreements for participation in some programs include language that creates conflicts of commitment and/or conflicts of interest for researchers, such as requirements to attribute U.S.-funded work to a foreign institution; recruit or train other talent recruitment program members; circumvent merit-based processes; and replicate or transfer U.S.-funded work to another country.

### KEY FACTS

- The issue presents risk of fraud, waste, and abuse of NSF or other government assets.
- Federal agencies and academia have made progress in combating malign foreign influence on the U.S. research enterprise.
- NSF has worked to mitigate these threats, such as by releasing guidelines for strengthening research security and creating an Office of the Chief of Research Security Strategy and Policy.
- NSF also has expanded research security training and educated the research community.



A visible laser used to study semiconductor properties close-up.  
*Credit: Georgia Tech/Rob Felt*

Over the past 5 years, NSF has taken meaningful action to mitigate threats posed by these programs. It strengthened disclosure requirements and provided compliance recommendations to U.S. academic institutions to ensure accurate disclosures to U.S. funding agencies. Further, NSF created an Office of the Chief of Research Security Strategy and Policy, which has taken a leading role in federal government efforts to combat this threat. It has expanded research security training and educated the research community through domestic and international outreach. NSF should continue to assess and refine its controls in this area and ensure that it has sufficient staff and resources to address this challenge.

## Key Completed Actions

- Created a Chief of Research Security Strategy and Policy position, later codified in the CHIPS and Science Act.
- Created a Chief Data Officer position.
- Launched the Research Security Strategy and Policy Group; developed and implemented research security data analytics capability that captures nondisclosure of foreign affiliations, sources of funding, and collaborations that present conflicts of commitment or capacity.
- Communicated an express prohibition of Foreign Talent Plan membership for all NSF staff, including rotators, and contributed to the process of vetting incoming rotators.
- Developed and implemented mandatory research security training for staff and rotators in direct communication with recipient organizations and principal investigators.
- Educated the research community about risks and compliance with NSF's policies and procedures.
- Strengthened disclosure requirements and processes, including implementing two new vehicles for submitting post-award information.
- Revised term and condition for foreign collaboration considerations in major facilities.
- Developed and implemented an award term and condition for previously undisclosed information.
- Served as steward of the development of harmonized disclosure requirements for proposers and grantees that have been adopted by the U.S. government interagency community.
- Increased collaboration with NSF OIG, U.S. government agencies, and other relevant stakeholders.
- Solicited input on the Research Security and Integrity Information Sharing Analysis Organization (RSI-ISA), as required by the CHIPS and Science Act.
- Developed internal guidance and public-facing guidelines on research security data-related practices.

## Key Planned and Ongoing Actions

- Stand up the Research Security Liaison group, which will oversee many of the issues previously assigned to the Research Security Strategy and Policy Group.
- Establishing the statutorily mandated SECURE Center (also known as RSI-ISA) as a clearinghouse for information to empower the research community to identify and mitigate foreign risks to the U.S.-funded research enterprise.
- Capturing nondisclosure of foreign affiliations, sources of funding, and collaborations that present conflicts of commitment or capacity.
- Continuing to conduct and monitor mandatory research security training for staff and rotators in direct communication with recipient organizations and principal investigators.
- Continuing education of the research community about risks presented by foreign talent recruitment programs and the importance of compliance with NSF policies and procedures.
- Implementing harmonized disclosure requirements for proposers and grantees that have been adopted by the U.S. government interagency community.
- Maintaining collaborative relationships with NSF OIG, U.S. government agencies, and other relevant stakeholders.
- Developing guidelines for strengthening research security, including those required by the CHIPS and Science Act and National Security Presidential Memorandum 33.
- Developing online research security training modules that will be made publicly available through awards made in partnership with National Institutes of Health, the Department of Energy, and the Department of Defense.
- Developing the Research-on-Research Security Program with international partners.



## Challenge 8: Mitigating Threats Posed by the Risk of Cyberattacks

Federal agencies need information technology (IT) systems and electronic data to carry out operations and to process, maintain, and report essential information. The security of these systems and data is vital to public confidence and national security, prosperity, and well-being.

NSF continues to make progress on improving the security of its data and systems and implementing a Zero Trust Architecture (ZTA) in response to EO 14028.<sup>28</sup> ZTA is an approach to cyber security which seeks the vigorous use of modern technology and security practices to defend against the current threat environment. Malicious actors target federal technology infrastructure, threatening public safety and privacy, damaging the American economy, and weakening trust in government.

In July 2023, two federal agencies were the target of an attack against their Microsoft 365 email cloud environments. Microsoft found approximately 25 organizations, including multiple government agencies, were affected by this targeted attack against cloud-based email accounts. In response, the U.S. Department of Homeland Security's Cybersecurity & Infrastructure Security Agency (CISA) and the Federal Bureau of Investigation strongly urged agencies to implement the logging recommendations in a July 2023 CISA alert to enhance their cybersecurity posture and position themselves to detect similar malicious activity.

Our *Federal Information System Modernization Act of 2014* (FISMA) audits have found that NSF has an effective information security program under current standards.<sup>29</sup> NSF could enhance its cybersecurity defenses by fully implementing the use of PIV or alternative MFA cards; implementing security controls related to untrusted removable media devices; ensuring all contractors adhere to the NSF screening process; and completing the annual recertification process for its service accounts. Finally, the Microsoft attack highlights the importance of NSF's audit logging, log retention, and log management as part of its Security Information and Event Management capabilities.<sup>30</sup>

In addition, new cybersecurity risks remain on the horizon. For example, recent developments in quantum computing have created threats to long-trusted public key cryptography. Decryption that used to take traditional supercomputers more than 2 days can now be accomplished by quantum computers in about 3 minutes. The U.S. Department of Homeland Security has provided guidance to agencies to begin preparing for a transition to post-quantum cryptography, and federal guidance from the National Institute of Standards and Technology is forthcoming.<sup>31</sup> The quantum transition will take place over the

### KEY FACTS

- This issue involves an operation that is critical to an NSF core mission.
- The security of IT systems and data is vital to NSF's mission and continued funding of scientific research.
- NSF continues to make progress on improving IT security and implementing ZTA, but new cybersecurity risks remain.
- Growing use of personal devices that connect to the NSF network may increase security risks.

<sup>28</sup> [Improving the Nation's Cybersecurity](#), May 12, 2021

<sup>29</sup> Pub. L. No. 113-283

<sup>30</sup> OMB M-21-31, [Improving the Federal Government's Investigative and Remediation Capabilities Related to Cybersecurity Incidents](#), August 27, 2021

<sup>31</sup> See [Policy Directive 140-15](#), September 17, 2021, and National Institute of Standards and Technology, Preliminary Draft NIST SP 1800-38A, [Migration to Post-Quantum Cryptography](#), April 24, 2023

next 10 to 15 years, and the federal government is working towards the future of post-quantum cryptography. NSF could further prepare for this transition by identifying critical data and cryptographic technologies, and prioritizing systems for replacement based on mission requirements.

With the large-scale increase in NSF's resources and staffing authorized by the CHIPS and Science Act, as well as more personal devices are accessing NSF resources due to the post-pandemic shift to hybrid workspaces, NSF will need increasingly effective measures to protect its data. As its workforce grows and workplace environments change, NSF should determine if changes or enhancements are needed to its VPN and Virtual Desktop Infrastructure capabilities to improve the availability, integrity, and confidentiality of NSF data. In anticipation of significant growth, NSF is creating a new office led by a new executive who will serve as NSF's Chief Information Officer and Chief Technology Officer. NSF seeks to position its IT functions to work even more effectively and efficiently throughout the agency. However, the structure of the new office is not yet finalized, and future challenges may be associated with staffing changes, reorganization, and growth.

### **Key Completed Actions**

- Worked with the U.S. Department of Justice's Cybersecurity Shared Services Program to obtain Security Information and Event Management capability for the USAP network.
- Updated password policy to align with ZTA; continues to use the principles of ZTA in cloud planning efforts to strengthen data protection, access controls, and application boundaries.
- Made significant strides in moving IT systems and services to the cloud to modernize legacy technology, improve capacity and uptime, enable standardization of services, and leverage the security benefits of cloud-based infrastructure.
- Automated the annual recertification process for its Active Directory service accounts to help mitigate the risk that unnecessary service accounts remain within IT environments.
- Completed an inventory of high value assets and systems critical to its mission that use cryptographic algorithms; NSF will transition to post-quantum cryptography for standardization, implementation, and testing of replacement products where vulnerable cryptographic algorithms are identified.
- Implemented a solution to block all removable media and only allow authorized removable media after security review and confirmation for the USAP network.

### **Key Planned and Ongoing Actions**

- Updating password enforcement to align with ZTA to implement enterprise tools to check passwords against known-breached data and dictionary words.
- Implementing an endpoint management platform to only allow authorized removeable media to be used on NSF managed devices and will update the rules of behavior to inform staff to use only authorized NSF storage devices.
- Prioritizing PIV card implementation for USAP users and deploy necessary resources to fully implement PIV authentication for privileged or administrator level access to the USAP network.
- Implementing an MFA smart card solution for USAP contractors who do not receive a PIV card.
- Continuing to implement procedures and a formal monitoring program to screen USAP's full-time and seasonal staff before access is granted to the USAP network.
- Enhancing its monitoring and alerting tools as part of its incident response capabilities for the USAP network.



## Staff Acknowledgments

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- For general inquiries about reporting fraud, waste, and abuse: Email [oig@nsf.gov](mailto:oig@nsf.gov)

### Contact the NSF Antarctic Helpline

The NSF Antarctic Helpline provides 24/7 crisis intervention and emotional support as well as information about support resources for members of the USAP community who experience sexual assault and/or sexual harassment.

- Confidential Helpline: 1-833-673-1733
- Learn more: <https://www.nsfantarctichelpline.org/>

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Pursuant to Pub. L. No. 117-263 § 5274, business entities and non-governmental organizations specifically identified in this report have 30 days from the date of report publication to review this report and submit a written response to NSF OIG that clarifies or provides additional context for each instance within the report in which the business entity or non-governmental organizations is specifically identified. Responses that conform to the requirements set forth in the statute will be attached to the final, published report.

If you find your business entity or non-governmental organization was specifically identified in this report and wish to submit comments under the above-referenced statute, please send your response within 30 days of the publication date of this report to [OIGPL117-263@nsf.gov](mailto:OIGPL117-263@nsf.gov), no later than December 15, 2023. We request that comments be in .pdf format, be free from any proprietary or otherwise sensitive information, and not exceed two pages. Please note, a response that does not satisfy the purpose set forth by the statute will not be attached to the final report.