



December 2020

FEDERAL RESEARCH

Agencies Need to Enhance Policies to Address Foreign Influence

Accessible Version

GAO Highlights

Highlights of [GAO-21-130](#), a report to The Chairman, Committee on Finance, United States Senate

Why GAO Did This Study

The federal government reportedly expended about \$42 billion on science and engineering research at universities in fiscal year 2018. Safeguarding the U.S. research enterprise from threats of foreign influence is of critical importance. Recent reports by GAO and others have noted challenges faced by the research community to combat undue foreign influence, while maintaining an open research environment that fosters collaboration, transparency, and the free exchange of ideas.

GAO was asked to review federal agency and university COI policies and disclosure requirements. In this report, GAO examines (1) COI policies and disclosure requirements at selected agencies and universities that address potential foreign threats, (2) mechanisms to monitor and enforce policies and requirements, and (3) the views of selected stakeholders on how to better address foreign threats to federally funded research. GAO reviewed laws, regulations, federal guidance, and agency and university COI policies and requirements. GAO also interviewed agency officials, university officials, and researchers.

What GAO Recommends

GAO is making nine recommendations to six agencies, including that grant-making agencies address non-financial conflicts of interest in their COI policies and develop written procedures for addressing cases of failure to disclose required information. Five agencies agreed with GAO's recommendations. The National Science Foundation neither agreed nor disagreed with GAO's recommendation, but identified actions it plans to take in response.

View [GAO-21-130](#). For more information, contact Candice N. Wright at (202) 512-6888 or wrightc@gao.gov

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Agencies Need to Enhance Policies to Address Foreign Influence

What GAO Found

U.S. research may be subject to undue foreign influence in cases where a researcher has a foreign conflict of interest (COI). Federal grant-making agencies can address this threat by implementing COI policies and requiring the disclosure of information that may indicate potential conflicts. GAO reviewed five agencies—which together accounted for almost 90 percent of all federal research and development expenditures at universities in fiscal year 2018—and found that three have agency-wide COI policies, while two do not (see figure). The three agencies with existing policies focus on financial interests but do not specifically address or define non-financial interests, such as multiple professional appointments. In the absence of agency-wide COI policies and definitions on non-financial interests, researchers may not fully understand what they need to report on their grant proposals, leaving agencies with incomplete information to assess the risk of foreign influence. GAO found that, regardless of whether an agency has a conflict of interest policy, all five agencies require researchers to disclose information—such as foreign support for their research—as part of the grant proposal that could be used to determine if certain conflicts exist.

Elements of Conflict of Interest (COI) Policies at Agencies with the Most Federal Research Expenditures at Universities

	National Institutes of Health	National Science Foundation	National Aeronautics and Space Administration	Department of Defense	Department of Energy
Agency-wide conflict of interest policy	Yes	Yes	Yes	No Agency-wide COI Policy	
Policy addresses financial conflicts of interest	Yes	Yes	Yes		
Policy addresses non-financial conflicts of interest	No	No	No		

Source: GAO analysis of agency documents. | GAO-21-130

Data table for Elements of Conflict of Interest (COI) Policies at Agencies with the Most Federal Research Expenditures at Universities

Agency	Agency-wide policy	Policy specified which financial interests must be reported	Policy specifically addresses foreign financial conflicts
National Institutes of Health	YES	YES	NO
National Science Foundation	YES	YES	NO
National Aeronautics and Space Administration	YES	NO	NO
Department of Defense	No agency-wide COI Policy	--	--
Department of Energy	No agency-wide COI Policy	--	--

Based on a review of university documents, GAO found that all 11 of the universities in its sample have publicly available financial and non-financial COI policies for federally funded research. These policies often align with the financial COI policies or requirements of the grant-making agencies.

All five agencies have mechanisms to monitor and enforce their policies and disclosure requirements when there is an alleged failure to disclose required information. All agencies rely on universities to monitor financial COI, and most agencies collect non-financial information such as foreign collaborations, that can help determine if conflicts exist. Agencies have also taken actions in cases where they identified researchers who failed to disclose financial or non-financial information. However, three agencies lack written procedures for handling allegations of failure to disclose required information. Written procedures for addressing alleged failure to disclose required information help agencies manage these allegations and consistently apply enforcement actions.

In interviews, stakeholders identified opportunities to improve responses to foreign threats to research, such as harmonizing grant application requirements. Agencies have begun to address such issues.

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Abbreviations

ARPA-E	Advanced Research Projects Administration – Energy
DOD	Department of Defense
DOE	Department of Energy
DOJ	Department of Justice
EERE	Office of Energy Efficiency and Renewable Energy
EOP	Executive Office of the President
HHS	Department of Health and Human Services

JCORE	Joint Committee on the Research Environment
NASA	National Aeronautics and Space Administration
NDAAs	National Defense Authorization Act
NIH	National Institutes of Health
NSF	National Science Foundation
OIG	Office of Inspector General
OSTP	Office of Science and Technology Policy

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December 17, 2020

The Honorable Chuck Grassley
Chairman
Committee on Finance
United States Senate

Dear Mr. Chairman:

The federal government reportedly expended about \$42 billion on university science and engineering research in fiscal year 2018.¹ Safeguarding U.S. taxpayers' investment in federally funded research from undue foreign influence is of critical importance. Recent reports by GAO and others have noted challenges faced by the research community to combat undue foreign influence, while maintaining an open research environment that fosters collaboration, transparency, and the free exchange of ideas.² For example, we recently reported on the risk foreign students working at U.S. research universities may pose by "exporting" sensitive knowledge they gain to their home countries.

In August 2018, one key research grant-making agency sent a letter to over 10,000 universities highlighting concerns over foreign government talent recruitment programs, noting that these programs can influence researchers receiving federal funding to divert intellectual property and

¹See National Science Foundation's "Higher Education Research and Development" survey on research and development expenditures provided to higher education institutions in the United States and outlying areas. These are the most recent data available as fiscal year 2019 data will not be published until January 2021.

²GAO, *Export Controls: State and Commerce Should Improve Guidance and Outreach to Address University-Specific Compliance Issues*, [GAO-20-394](#) (Washington, D.C.: May 12, 2020). United States Senate, Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, *Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans* (Washington, D.C.: November 2019).

federally funded research to other countries.³ The letter also highlighted concerns that some researchers with federally funded grants did not disclose financial and other resources provided by foreign governments. For example, in May 2020, a former researcher at one U.S. university pleaded guilty for not reporting hundreds of thousands of dollars in foreign income in relation to his involvement in the Thousand Talents Program, a Chinese-government talent recruitment program, on his federal tax returns.⁴ This case came to light after the agency reviewed the researcher's grant proposals and became concerned that he had failed to disclose, among other things, foreign research activity.⁵

You asked us to review issues related to foreign influence in federally funded research through conflict of interest policies and disclosure requirements. In this report, we examine (1) the extent to which selected agencies and universities have conflict of interest policies and disclosure requirements that address potential foreign influence, (2) the extent to which selected agencies have mechanisms to monitor and enforce policies and requirements, and (3) the views of selected stakeholders on options to improve agencies' and universities' ability to identify and address foreign influence in federally funded research.

³Department of Health and Human Services, National Institutes of Health, "Dear Colleague" letter to university and academic medical school officials (Bethesda, Md.: Aug. 20, 2018). According to the Office of Science and Technology Policy (OSTP), a government sponsored talent recruitment program is an effort directly or indirectly organized, managed, or funded by a foreign government to recruit science and technology professionals in targeted fields. OSTP further noted that some countries sponsor such programs for legitimate purposes, but programs sponsored by other countries include language that creates conflicts of interest for researchers, such as by transferring U.S. funded work to another country. The White House Office of Science and Technology Policy, *Enhancing the Security and Integrity of America's Research Enterprise* (Washington, D.C.: June 2020).

⁴Department of Justice press release, *Former Emory University Professor and Chinese "Thousand Talents" Participant Convicted and Sentenced for Filing a False Tax Return* (Washington, D.C.: May, 11, 2020) available at <https://www.justice.gov/opa/pr/former-emory-university-professor-and-chinese-thousand-talents-participant-convicted-and>. According to a Senate subcommittee report, the Thousand Talents Plan, launched in 2008, incentivizes individuals engaged in research and development in the United States to transmit the knowledge and research gained to China in exchange for salaries, research funding, lab space, and other incentives. United States Senate, Permanent Subcommittee on Investigations, *Threats to the U.S. Research Enterprise*.

⁵This researcher worked simultaneously at Emory University performing federally funded biomedical research, and at two Chinese universities performing similar research. The agency's review prompted the university, and later federal law enforcement, to investigate the matter, which revealed the filing of false tax returns.

For all three objectives, we selected the top five agencies with the largest amount of funding for federal research—the Department of Defense (DOD), the Department of Energy (DOE), the National Aeronautics and Space Administration (NASA), the National Institutes of Health (NIH), and the National Science Foundation (NSF). These agencies accounted for almost 90 percent of all federal research and development expenditures at universities, mostly through grants, in fiscal year 2018, based on the most recent data available. We also selected a non-generalizable sample of 11 universities, as a subset of all universities, which received over \$500 million in combined research grant funding in fiscal years 2018 and 2019 from two or more of the five selected agencies.

In order to identify the extent to which selected agencies and universities have conflict of interest policies and disclosure requirements that address foreign influence, we reviewed the relevant laws, regulations, federal guidance, and agency and university policies, among other information. To evaluate the extent to which selected agencies have mechanisms to monitor and enforce policies and requirements, we reviewed agency processes and procedures, if any, related to monitoring and enforcing conflict of interest policies and required disclosures and interviewed agency officials on monitoring conflict of interest disclosures and implementing enforcement actions. We evaluated relevant statutory provisions and compared agency policies and requirements, as well as their monitoring and enforcement procedures, against *Standards for Internal Control in the Federal Government*.⁶

Finally, to understand the views of selected stakeholders on options to improve agencies' and universities' ability to identify and address foreign threats to federally funded research, we interviewed stakeholders at agencies, selected universities, and university organizations about opportunities to strengthen conflict of interest policies and disclosure requirements. For more information on the scope and methodology, please see appendix I.

We conducted this performance audit from December 2019 to December 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe

⁶GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014).

that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Federal agencies that fund research have a strong interest in ensuring that the underlying research is scientifically rigorous and free of bias such as foreign influence. Two tools agencies may use to address foreign influence are conflict of interest policies and disclosure requirements for certain information, such as foreign affiliations and current and pending research support. Among other things, conflict of interest policies protect the integrity of the U.S. research enterprise against the influence of the researcher's financial interests on the design, conduct, and reporting of the results of federally funded research. Agencies may also require researchers to disclose information about their affiliations, associations, and activities, such as current and pending support, which may indicate potential non-financial conflicts, such as the same research being supported by the U.S. federal government and a foreign government.

In May 2019, the White House Office of Science and Technology Policy's (OSTP), National Science and Technology Council, established the Joint Committee on the Research Environment (JCORE) to address issues related to the safety, integrity, and productivity of the research environment, including balancing open research environments with security and reducing administrative burden.⁷ The Research Security Subcommittee of JCORE has sponsored ongoing efforts to protect federally funded research, including from foreign threats. This subcommittee focuses on developing (1) appropriate and effective risk management for federal agencies and research institutions; (2) consistent, coordinated, and effective outreach to and engagement with academic and research institutions; (3) coordinated guidance for federal agencies; and (4) recommendations for best practices for academic and research institutions. This committee has worked extensively with federal grant-making agencies, security agencies, and the research community

⁷Specifically, OSTP documents noted that JCORE will examine administrative burdens in federally funded research; integrity in research; safe, inclusive, and equitable research settings; and open research environments balanced with security.

as it develops guidance.⁸ The National Defense Authorization Act for Fiscal Year 2020 (FY 2020 NDAA) included a requirement for an interagency working group, chaired by the Director of OSTP.⁹ The FY 2020 NDAA requires the working group to “coordinate activities to protect federally funded research and development from foreign interference, cyber-attacks, theft, or espionage and to develop common definitions and best practices for federal science agencies and grantees.”¹⁰

In June 2020, as part of the initiative, the JCORE Research Security Subcommittee presented an informational document at a conference and posted it on their website as a resource for agencies and the research community. The document included the following two definitions related to conflicts of interest:

Conflict of interest (financial conflict of interest): is a situation in which an individual, or the individual’s spouse or dependent children, has a financial interest or financial relationship that could directly and significantly affect the design, conduct, reporting, or funding of research.¹¹

Conflict of commitment (non-financial conflict of interest): is a situation in which an individual accepts or incurs conflicting obligations

⁸OSTP officials noted that JCORE’s interagency guidance will be issued in coordination with the Executive Office of the President. For the purposes of this report, we will refer to JCORE’s interagency guidance as OSTP guidance.

⁹National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, tit. XVII, sub. A, § 1746(a), 133 Stat. 1198, 1843-45 (2019) (codified at 42 U.S.C. § 6601 note).

¹⁰Section 1746 of the FY 2020 NDAA further requires the interagency working group to develop recommendations for policy guidance to assist federal science agencies and grantees in defending against threats to federally funded research. Pub. L. No. 116-92, tit. XVII, sub. A, § 1746(a)(3)(E), 133 Stat. 1198, at 1844. In addition, the Director of OSTP, in consultation with the working group, is required to develop and issue policy guidance to federal science agencies that meet certain monetary thresholds, and encourage consistency in policies developed by federal science agencies that do not meet the monetary thresholds, to protect against threats to the United States science enterprise, including foreign interference. Pub. L. No. 116-92, tit. XVII, sub. A, § 1746(a)(4), 133 Stat. 1198 at 1844. JCORE’s Research Security Subcommittee carries out the responsibilities of the working group required by the Fiscal Year 2020 National Defense Authorization Act. For the purposes of this report, the term “grant-making agencies” includes the federal science agencies mentioned in the statute.

¹¹The White House Office of Science and Technology Policy, *Enhancing the Security and Integrity of America’s Research Enterprise* (Washington, D.C.: June 23, 2020). OSTP’s definition for conflict of interest focuses on financial conflicts of interest. Unless otherwise noted, when discussing conflicts of interest in this report, we are referring to both financial conflicts of interest and non-financial conflicts of interest (also referred to as conflicts of commitment). The OSTP definition does not include the term “financial conflict of interest.”

between or among multiple employers or other entities. Many institutional policies define conflicts of commitment as conflicting commitments of time and effort, including obligations to dedicate time in excess of institutional

obligations, including obligations to improperly share information with, or withhold information from, an employer or funding agency, can also

OSTP Examples of Foreign Conflicts of Interest in U.S. Research



In a June 2020 presentation, the White House Office of Science and Technology Policy (OSTP) highlighted incidents of researchers failing to disclose required information to grant funding agencies. The failure to disclose such information can lead to undue foreign influence on the integrity of research, national security, and economic security. These cases highlight both financial and non-financial conflicts of interest and behaviors that may violate the policies of grant-making agencies or U.S. law.

In one incident, a researcher at a university who received \$10 million in grants from the National Institutes of Health over an 11 year period failed to disclose membership in a foreign government talent recruitment program (a non-financial conflict of interest). Moreover, the researcher did not disclose to the agency that he was the founder and primary shareholder of a publicly traded foreign biotechnology company (a financial conflict of interest).

In another incident, a researcher at a university applied for Department of Energy and National Science Foundation grants to fund research at his U.S. company. The researcher did not disclose an employment agreement with a foreign university (a non-financial conflict of interest).

Source: GAO review of information provided by OSTP, Centers for Disease Control and Prevention, Public Health Image Library, Chief Petty Officer Jerrold Diederich/ U.S. Army Africa (photo) | GAO-21-130

threaten research security and integrity, and are an element of a broader concept of conflicts of commitment.¹²

In addition, this informational document also provided examples of how some individuals and foreign governments violate core principles of integrity and pose risks to the U.S. research enterprise (see sidebar). The JCORE Research Security Subcommittee is planning to issue additional guidance on various areas of concern involving foreign influence in federally funded research.

Selected Agencies and Universities Have Policies and Disclosure Requirements Addressing Conflicts of Interest

We found that three of the five agencies (NIH, NSF, and NASA) have agency-wide policies addressing conflicts of interest, and all agencies require specific disclosures as part of the grant proposal process. However, for agencies with agency-wide policies, those policies do not address or define non-financial conflicts of interests such as foreign affiliations, associations, or activities. Additionally, we found that agencies have taken steps to clarify policies and requirements to address risks of foreign influence, and that all 11 selected universities have conflict of interest policies that address both financial and non-financial conflicts.

Two of Five Agencies Do Not Have Conflict of Interest Policies, but All Have Disclosure Requirements

Based on our review of agency documents, we found that NIH, NSF, and NASA have agency-wide conflict of interest policies that require researchers to make certain disclosures, while DOD and DOE do not. We found that agency-wide conflict of interest policies require universities to develop their own policies and include specific requirements for identifying conflicts of interest.¹³ Additionally, in some cases, the agency policy also provides guidance to universities on ways to mitigate conflicts

¹²The White House Office of Science and Technology Policy, *Enhancing the Security and Integrity of America's Research Enterprise* (Washington, D.C.: June 23, 2020). The OSTP definition does not include the term "non-financial conflict of interest."

¹³NSF officials told us that, in addition to a conflict of interest policy, their Proposal and Award Policies and Procedures Guide outlines specific disclosure requirements.

of interest, among other things. In addition, agencies we reviewed have disclosure requirements that are generally found in grant funding announcements and ask the researcher to provide certain information such as their professional appointments, current and pending support (financial or in-kind support), and external collaborations, among other things.

In interviews, DOD and DOE officials told us that they are working on developing agency-wide conflict of interest policies. DOD officials agreed that an agency-wide conflict of interest policy was necessary, and both agencies plan to issue their policies after OSTP's guidance is issued to grant-making agencies on harmonizing disclosure requirements and developing best practices.¹⁴ However, OSTP officials told us that agencies can take steps to clarify their conflict of interest policies in advance of the issuance of OSTP's guidance, in part because these agencies have been involved in the interagency JCORE process to address issues surrounding conflicts of interest and have an understanding about the direction of OSTP's forthcoming guidance.

Because DOD and DOE do not have agency-wide policies, administrators from one university told us, researchers applying for grants from these agencies are exempt from disclosing their financial interests. Administrators, as well as a researcher we interviewed, provided examples of inconsistent and unclear agency requirements. For instance, administrators at one university noted that agency program officers have, at times, been inconsistent in their interpretation of agency requirements when providing guidance to different researchers; and a researcher at one university was unable to find official definitions of terms such as "significant financial interests" on the agency's web site to help them understand what information must be reported to universities as part of agency requirements.

The FY 2020 NDAA provides for the establishment of an interagency working group, chaired by the Director of OSTP, to coordinate activities to protect federally funded research and development from foreign influence and to develop common definitions and best practices for federal science

¹⁴DOD and DOE officials told us that some of their agency components (e.g. the Department of the Navy or DOE's Office of Science) may have conflict of interest policies; however neither agency has a requirement for them to do so. In addition, DOD noted that they do not track component conflict of interest policies.

agencies and grantees.¹⁵ OSTP officials told us that, for agencies to identify and mitigate undue foreign influence, it is important for them to establish policies and define terms. In addition, *Standards for Internal Control in the Federal Government* states that management should define objectives clearly and establish policies and procedures to achieve their objectives, in this case, the objective of addressing conflicts of interest.¹⁶ In the absence of DOD and DOE agency-wide policies on conflicts of interest, universities lack sufficient guidance to identify, assess, and manage conflicts appropriately when working on grants funded by these two agencies which support research with significant consequences for national security.

The agencies with conflict of interest policies (NIH, NSF, and NASA) vary in what they require from universities and researchers. For example, NIH and NSF specify which financial interests should be reported to the university, and require universities to mitigate any conflicts, whereas NASA's policy states that all conflicts must be disclosed, and NASA officials have noted this applies to grantees and includes financial interests.¹⁷ However, none of these three agencies have conflict of interest policies that specifically mention foreign financial interests—including whether such interests should be reported. NIH and NSF established their policies in the mid-1990s, when the threat of foreign influence in research was not an issue. NIH and NSF officials explained

¹⁵National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, tit. XVII, sub. A, § 1746(a), 133 Stat. 1198, 1843-45 (2019) (codified at 42 U.S.C. § 6601 note) (providing further that activities of the working group are to account “for the importance of the open exchange of ideas and international talent required for scientific progress and American leadership in science and technology”).

¹⁶[GAO-14-704G](#).

¹⁷OSTP officials told us that there is no government-wide requirement for agencies to have conflict of interest policies that include requirements similar to those in the NIH and NSF policies. Officials from NASA referenced 2 C.F.R. part 200 as the basis for developing their conflict of interest policies for federal awards, and officials from NSF noted that the agency helped develop guidance found at 2 C.F.R. part 200 and that their policy, which existed prior to this guidance, is in compliance with the guidance. Issued by the Office of Management and Budget, 2 C.F.R. part 200 is uniform administrative guidance for grant awarding agencies, commonly referred to as the Uniform Guidance. This guidance includes a requirement that federal awarding agencies establish conflict of interest policies for federal awards. 2 C.F.R. § 200.112. The Uniform Guidance, however, does not define “conflict of interest,” but it does discuss the non-federal entity's procurement procedures for procurements made in support of the federal award, and addresses the non-federal entity's requirement to maintain “written standards of conduct covering conflicts of interest and governing the actions of its employees engaged in the selection, award and administration of contracts.” 2 C.F.R. § 200.318.

that they require researchers to disclose all financial interests, which, in their view, implies both domestic and foreign interests.

We found that regardless of whether they have conflict of interest policies, all five agencies require researchers applying for grants to disclose information as part of the grant proposal process.¹⁸ Such disclosures could be used to determine if certain conflicts exist. Specifically, all agencies require grant applicants to provide biographical details for key personnel conducting the research (such as education and professional appointments), information on other research support (such as outside funding or material support), and information on foreign components of the research, such as foreign partnerships or activities outside the United States (see appendix II for details on the information agencies require). All agencies noted that they primarily use disclosures to determine the capacity of the researcher to perform the proposed research or identify redundant funding of the same research, or both. Additionally, officials from NIH and DOE said that they also use this information to assess the risk of foreign influence, while DOD and NSF officials told us they do not. NASA officials explained that, while they generally do not use this information to assess the risk of foreign influence, they use the information reported on foreign partnerships or activities outside the United States to ensure compliance with a law that prohibits the agency from bilateral participation, collaboration or coordination with China or Chinese-owned companies.¹⁹

Agency Policies Do Not Address or Define Non-Financial Conflicts of Interest

We found that existing agency-wide policies focus on financial conflicts of interest and do not define non-financial conflicts, and most do not discuss

¹⁸While some agencies we reviewed have agency-wide policies that discuss these requirements, other agencies require this information as part of the grants application process and provided sample grant announcements including these requirements.

¹⁹Department of Defense and Full-Year Continuing Appropriations Act of 2011, Pub. L. No. 112-10, § 1340(a), 125 Stat. 38, 123. In addition, NASA's grants and cooperative agreement manual requires the following assurance and representation related to this provision as part of the grant proposal: "By submission of its proposal, the proposer represents that the proposer is not China or a Chinese-owned company, and that the proposer will not participate, collaborate, or coordinate bilaterally with China or any Chinese-owned company, at the prime recipient level or at any subrecipient level, whether the bilateral involvement is funded or performed under a no- exchange of funds arrangement." NASA Grants and Cooperative Agreements Manual, at 47, 58 (2020).

such conflicts.²⁰ Such conflicts may include foreign academic appointments and in-kind support—for example, in the form of laboratory space or materials—which can be provided by foreign entities. We found that government-wide guidance governing the grants process does not specifically mention or define non-financial conflicts, nor does it mention disclosing foreign affiliations, associations or activities. Nor is there any specific requirement for agencies to have non-financial conflict of interest policies.

According to OSTP officials, it is important for agencies to define non-financial conflicts and address the issue in their policies in order to identify and mitigate undue foreign influence. As discussed in a previous section, in June 2020, OSTP released an informational document which included a definition of conflict of commitment (non-financial conflict).²¹ While the informational document serves as a reference for agencies and the research community, according to OSTP officials, it does not require agencies to adopt or incorporate the OSTP definition into their policies.

Most agencies told us that they were working with OSTP on ways to improve their conflict of interest policies—both financial and non-financial—but they are waiting for the issuance of OSTP’s guidance before updating their policies and definitions. According to *Standards for Internal Control in the Federal Government*, management should define reporting objectives clearly, in a specific and measurable way where specific terms are fully and clearly set forth so they can be easily understood.²² At a time when there is growing concern about increasing threats of foreign influence, if agencies do not define and address non-financial conflicts of interest, researchers may not fully understand what they need to report on their grant proposals. As a result, agencies may receive incomplete or inaccurate reporting on potential non-financial conflicts, which would impede agency efforts to assess such conflicts.

²⁰While NIH’s conflict of interest policies do not explicitly define non-financial conflicts, its Grants Policy Statement indicates that before an award is made, NIH staff will review disclosures of current and pending support, which the agency terms “other support,” to determine whether there is “scientific, budgetary or commitment overlap.”

²¹The White House Office of Science and Technology Policy, *Enhancing the Security and Integrity of America’s Research Enterprise*, (Washington, D.C.: June 2020).

²²[GAO-14-704G](#).

As of November 2020, OSTP officials stated that their interagency guidance to address foreign influence was undergoing review in a coordinated process with the Executive Office of the President (EOP). These officials explained that while they anticipate the guidance will be released soon, OSTP is unable to provide specific timeframes on issuing this guidance. In interviews, OSTP noted that the interagency guidance would address disclosures of non-financial interests, definitions, and best practices, among other things.²³ Officials also noted that the development of the guidance is an iterative process having many stages, but they did not indicate whether any additional guidance may be forthcoming, or provide timelines on when agencies should expect all of the guidance.

However, *Standards for Internal Control in the Federal Government* states that management should communicate information with external entities on a timely basis.²⁴ Without timely issuance of the guidance currently under review to address foreign influence and any additional forthcoming guidance by OSTP and the EOP, agencies may not have the information needed to define their own time frames for updating their policies. Such updates are needed to achieve agency objectives related to addressing growing concerns about foreign influence in federally funded research.

Agencies Have Taken Steps to Clarify Existing Policies or Requirements to Address Risks of Foreign Influence

In response to recent cases, the five agencies in our review have taken steps to clarify their existing policies or requirements regarding foreign conflicts of interest and disclosures, according to agency officials. These steps include providing additional guidance on interpreting existing policies, conducting outreach to universities on agency disclosure requirements, and issuing reports (see table 1). Agencies have also internally identified risks to federally funded research from foreign entities by establishing working groups to address concerns of foreign influence and conducting risk assessments of foreign threats to their research.

²³OSTP officials explained that because the guidance is under review by the EOP, they were unable to provide us with specific information on what was included in the guidance.

²⁴[GAO-14-704G](#).

Table 1: Agencies' Actions to Clarify Policies or Requirements to Address Risks of Foreign Influence

	Additional guidance to universities	Conducted outreach to universities	Issued public reports	Established working groups on identifying risk	Conducted risk assessments
National Institutes of Health	Yes	Yes	Yes	Yes	Yes
National Science Foundation	Yes	Yes	Yes	Yes	Yes
Department Of Defense	Yes	Yes	No	Yes	Yes
Department Of Energy	No	Yes	No	Yes	Yes
National Aeronautics and Space Administration	No	No	No	Yes	Yes

Source: Agency interviews and GAO review of agency documents. | GAO-21-130

Agencies provided several examples of how they have clarified their policies and disclosure requirements. Both NIH and NSF provided additional guidance to universities to clarify their conflict of interest policies or requirements. In particular, NIH issued a notice in March 2018 to the extramural research community, *Financial Conflict of Interest: Investigator Disclosures of Foreign Financial Interests*. In the memo, NIH reminded researchers to report financial support received from a foreign government or foreign institution of higher education. In addition, NSF held two webinars for researchers in February and April 2020 on how to meet grant proposal requirements, including discussing an NSF-approved format to submit biographical information and current and pending support documents. DOD held roundtable discussions with universities in 2019 to get feedback on an initiative to increase outreach to universities and to discuss potential threats posed by foreign talent recruitment programs. DOE officials told us that, since 2019, the agency has conducted outreach with stakeholders on the agency's science and security policies through workshops and panel discussions.

NIH and NSF also issued public reports on foreign influence and conflict of interest policies. For example, in 2018, NIH issued a report focused on complications of foreign influence in the extramural NIH research community. The report included recommendations to NIH and universities on raising awareness of foreign influence and safeguarding research integrity, among other things.²⁵ In addition, in December 2019, NSF commissioned a report examining the value and risks of openness in

²⁵National Institutes of Health Advisory Committee to the Director, *ACD Working Group for Foreign Influences on Research Integrity*, (December 2018).

research, which noted conflicts of interest can be both financial and non-financial.²⁶

Finally, all agencies have taken steps to identify the risks to federally funded research from foreign entities through working groups or internal risk assessments. We found the agencies have done the following:

- **NIH:** The agency established an advisory working group to address issues of foreign influence, including failure to disclose foreign financial interests, non-financial interests, and other financial support during the grant proposal process.²⁷
- **NSF:** The agency established a research protection working group that conducts internal risk assessments on science and security using a risk management framework to identify and mitigate risks in science and security, according to agency documents.
- **DOD:** The agency submitted a report to Congress in September 2019, in response to a statutory requirement, detailing activities conducted and progress made under an initiative to protect academic research funded by the agency.²⁸ In addition, according to DOD officials, DOD is working on identifying Chinese government-affiliated foreign talent recruitment programs. In addition, DOD established a task force—Protecting Critical Technologies Task Force—to review regulations, procedures, and policies regarding the conduct of research.
- **DOE:** The agency conducted an internal risk assessment of critical and emerging research areas, which identified countries that may present a risk to DOE-funded research.²⁹

²⁶JASON, *Fundamental Research Security*, JSR-19-21 (McLean, Virginia, December 2019).

²⁷The Advisory Committee to the Director Working Group for Foreign Influences on Research Integrity.

²⁸The John S. McCain National Defense Authorization Act for Fiscal Year 2019 directed the Secretary of Defense to establish an initiative to protect national security academic research funded by DOD. Pub. L. No. 115-232, div. A, tit. XII, sub. F, § 1286, 132 Stat. 1636, 2078-79 (2018) (codified at 10 U.S.C. § 2358 note). According to DOD officials, the agency's September 2019 report to Congress was issued in response to this provision.

²⁹As a result of this assessment, DOE developed a tool it refers to as the "S&T Risk Matrix" to identify and mitigate the exploitation of science and technology research areas.

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- **NASA:** Agency program officers and other staff meet periodically to work on matters related to research integrity as they arise, including foreign conflicts of interest, according to NASA officials.

All 11 University Conflict of Interest Policies Address Both Financial and Non-Financial Conflicts

Based on our review of university documents, we found that all 11 of the universities in our sample have publicly available financial conflict of interest policies for federally funded research. These policies often align with the policies or requirements of the granting agencies. For example:

- Nine of the 11 universities whose conflict of interest policies we reviewed defined “conflict of interest” in a substantially similar way to NIH and NSF.³⁰
- Nine of the 11 universities whose conflict of interest policies we reviewed specify that failure to disclose financial interests as required could result in disciplinary action.
- Three of the 11 universities have separate conflict of interest policies to address the different reporting requirements for NIH and NSF.

Of the 11 universities in our sample, one has a financial conflict of interest policy that specifically included foreign financial interests. This policy’s definition of a “significant financial interest” specifically includes that such an interest could be in either a “domestic or foreign” legal entity.

Similar to financial conflicts of interest, all of the universities in our sample have policies addressing non-financial conflicts of interest, although this is not specifically required by government-wide guidance or regulations. These policies characterized non-financial conflicts as “conflict of commitment,” “dual appointment,” or “outside consulting activities.”

Administrators at one university we interviewed explained that they have instituted non-financial conflict of interest policies to provide guidance to researchers for work outside the university. These administrators, as well as administrators at another university, told us that they were concerned

³⁰NIH defines financial conflicts of interest as “a significant financial interest that could directly and significantly affect the design, conduct or reporting of PHS-funded research.” 42 C.F.R. § 50.603. NSF says that a conflict exists “when the reviewer(s) reasonably determines that a significant financial interest could directly and significantly affect the design, conduct, or reporting of NSF-funded research or educational activities.” NSF Proposal and Award Policies and Procedures Guide, at IX-1 (June 2020).

that researchers with external commitments might not have enough time to perform their duties to the university, or there might be questions about the ownership of their research. Only one of the policies specifically mentioned foreign commitments as a concern. This policy required researchers to consult with the university prior to conducting business or research with foreign governments. As noted above, agency policies do not define non-financial conflicts, whether domestic or foreign.

Eight of the eleven universities in our sample have policies that define non-financial conflicts as an activity or relationship that interferes with a researcher's responsibilities to the university. The remaining three university policies do not include definitions of what constitutes a non-financial interest. Under the universities' definition, being a member of a foreign talent recruitment program might not be considered a non-financial conflict, if the membership does not interfere with the researcher's responsibilities to the university. A few university officials told us that, up until a few years ago, being a member of a foreign talent recruitment program was considered prestigious, and researchers openly disclosed their membership in publications.

Some university administrators further noted that, in light of recent concerns about foreign influence, they have added specific disclosure questions related to foreign affiliations, associations, and activities, although such disclosures are not required by government-wide guidance. For example, administrators at one university told us that, in 2019, they added a question to their annual disclosures asking faculty members if they had ever been a member of a foreign talent recruitment program. Administrators at another university said they have implemented a Global Activities Disclosure which mentions (but does not define) foreign talent recruitment programs. However, administrators from another university told us they had not updated their disclosures to ask specific disclosure questions about foreign affiliations, associations, or activities.

Selected Agencies Rely on Universities to Monitor Conflicts but Lack Clear Enforcement Procedures

The five agencies included in our review rely on universities to monitor financial conflicts of interest and collect information that could be used to determine the existence of non-financial conflicts. Additionally, all

agencies have mechanisms to ensure that disclosure requirements, which could be used to identify conflicts of interest, are met, but most do not have written procedures for addressing failures to disclose required information.

All Agencies Rely on Universities to Monitor Financial Conflicts of Interest

All agencies we reviewed stated that they rely on universities to identify and monitor financial conflicts of interest. Some agency officials explained that they make grants to universities, not to individual researchers, so universities bear the primary responsibility for addressing researchers' financial conflicts of interest. For example, NIH and NSF have written policies that require universities to have a conflict of interest policy, determine whether a financial interest constitutes a conflict, and develop mitigation plans, if the university determines that a conflict exists.³¹ In addition, NASA and DOD officials said they rely on the certification of the university that they "will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest or personal gain." DOD and DOE officials further stated that they have left the determination of financial conflicts to the universities.

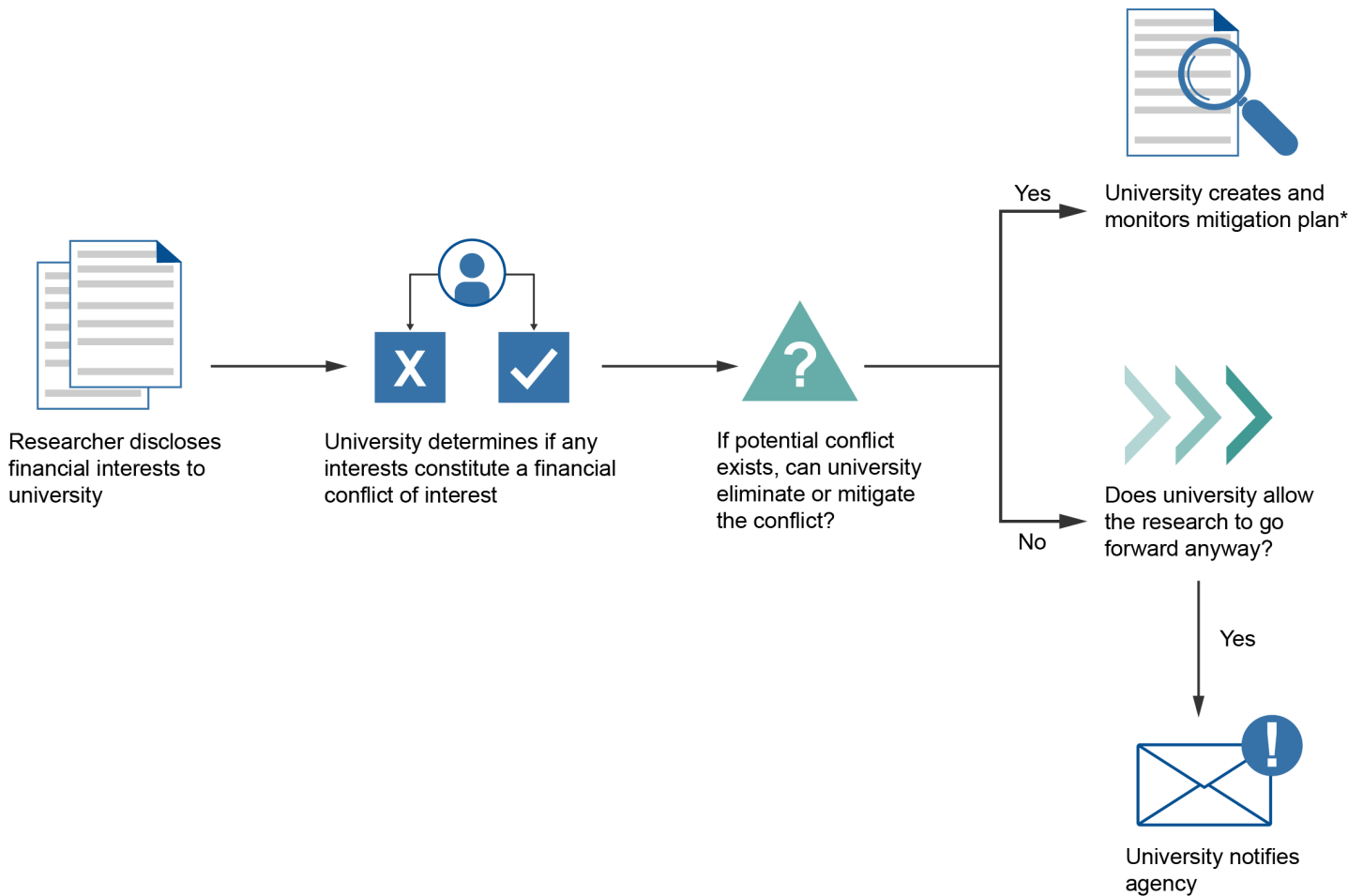
NIH regulations also require universities to provide financial conflict of interest reports to the agency, which include specified information about university mitigation plans to address the conflicts.³² According to NIH officials, the agency reviews the financial conflict of interest reports to ensure completeness and to determine whether the mitigation plan sufficiently alleviates the conflict. The remaining four agencies generally do not require universities to submit mitigation plans.³³ Figure 1 illustrates the general process for how universities manage financial conflicts of interest.

³¹DOD officials told us they may also review information to potentially identify non-financial conflicts using required disclosures or verify the accuracy of information provided.

³²42 C.F.R. § 50.605(b)(1)-(3).

³³Agency officials from DOD and DOE told us that they require universities to submit mitigation plans under certain circumstances. For example, DOE's Office of Energy Efficiency & Renewable Energy (EERE) and Advanced Research Projects Agency – Energy (ARPA-E), told us that they also may require universities to provide copies of mitigation plans and that the program offices review them.

Figure 1: Generalized University Processes for Identifying and Mitigating Potential Financial Conflicts of Interest



Source: GAO analysis of university and agency policies. | GAO-21-130

Text for Figure 1: Generalized University Processes for Identifying and Mitigating Potential Financial Conflicts of Interest

1. Investigator discloses financial interests to university
2. University determines if any interests constitutes a financial conflict of interest
3. Can university eliminate or mitigate the conflict?
 - a. Yes: University creates and monitors plan*
 - b. No: Does university allow the research to go forward anyway?
 - i. Yes: University notifies agency

*NIH regulations require universities to submit financial conflict of interest reports, including a description of the key elements of the university's mitigation plans. 42 C.F.R. § 50.605(b)(1)-(3). In

addition, DOE officials told us that some of their components also require universities to submit mitigation plans. DOD noted that they may require such information in certain circumstances.

Most Agencies Collect Information on Non-Financial Interests

Most of the agencies included in our review collect information on non-financial interests that could be used to determine potential conflicts, such as foreign collaboration with researchers or outside organizations involved in the project or new sources of support, through Research Performance Progress Reports.³⁴ Agencies we reviewed periodically collect information on funded projects through these progress reports, which provide details on the progress of and updates to the funded project, according to our review of agency documents and interviews with agency officials.

In interviews, agency officials told us they use the information in the progress reports for varying purposes. For example, NSF officials told us they use the information to determine the extent of international collaborations in agency-sponsored research, while our review of DOD documentation shows that the agency uses it to evaluate the progress of the project, among other things. On the other hand, NIH officials told us that they use this information to detect potential foreign influence by identifying discrepancies between the reported information in the progress report and other sources, such as publications.³⁵ DOD officials told us that they do not have the policies and procedures to use the progress reports in this way, and officials from DOE's Office of Science told us that the information in the progress report might not be enough to identify the risk of foreign influence.

³⁴Based on our review of agency documentation, NASA's progress reports do not include information on potential non-financial conflicts. According to DOD and DOE officials, not all of their agency components include information on potential non-financial conflicts.

³⁵According to DOE officials, one component of DOE, ARPA-E, may elevate concerns related to "foreign misappropriation of research results" that they identify through these reports.

Agencies Have Mechanisms to Enforce Requirements, But Most Do Not Have Written Procedures for Addressing Failures to Disclose

In interviews, officials from all agencies told us that there have been instances where researchers have failed to disclose financial or non-financial information, as required. According to agency documents and interviews, all agencies we reviewed have had at least one instance of a conflict of interest case involving foreign influence (see Table 2).

Table 2: Current and Past Investigations into Foreign Influence, by Agency as of September 2020

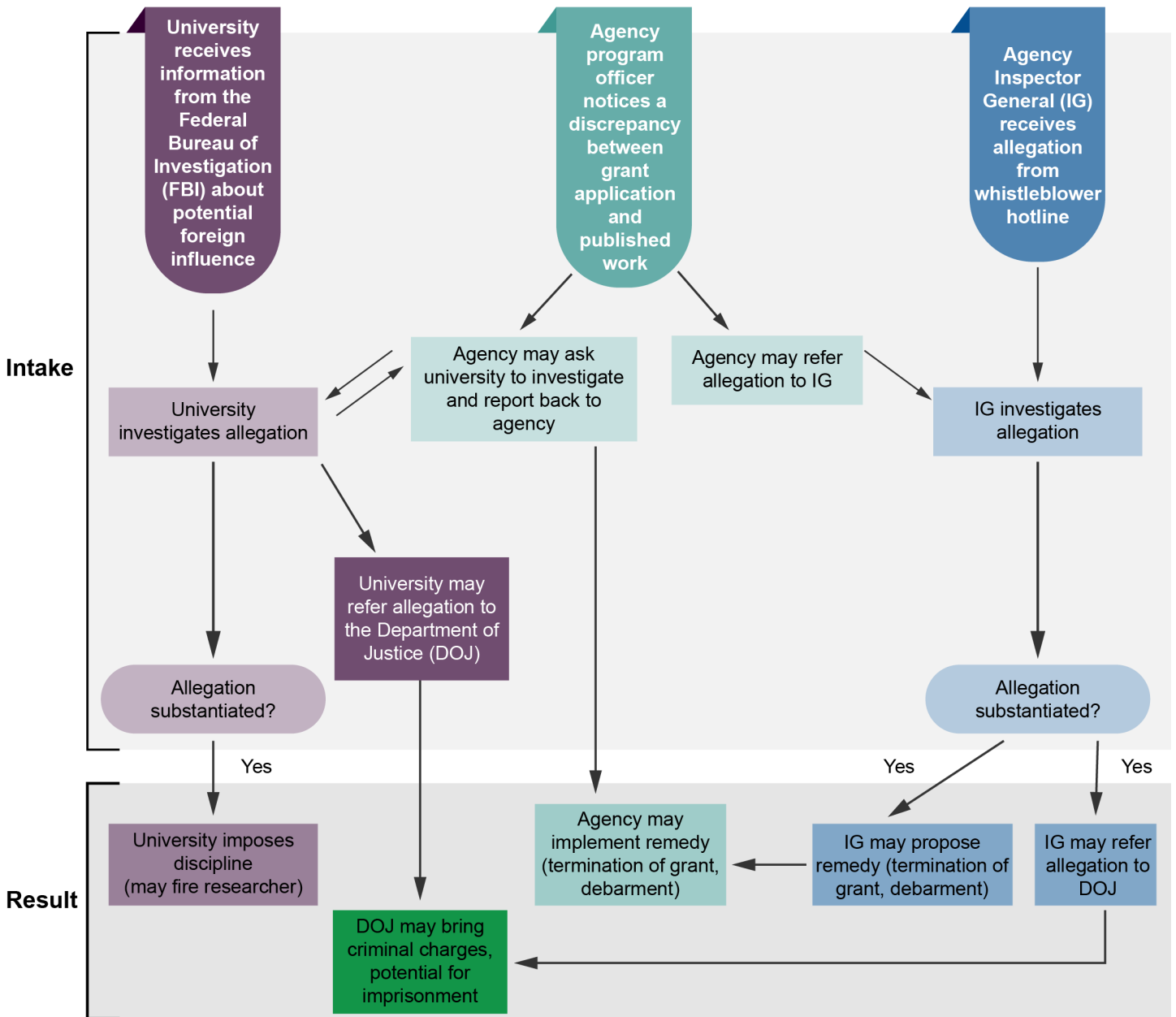
Agency	Description of Foreign Influence Caseload
National Institutes of Health (NIH)	NIH identified 455 researchers of possible concern and worked with the Department of Justice to initiate the investigation of six criminal complaints. NIH has also referred 32 cases to the Office of the Inspector General (OIG) within the Department of Health and Human Services (HHS).
National Science Foundation (NSF)	NSF estimates it has taken administrative action against nearly 20 grant recipients who failed to disclose foreign ties.
National Aeronautics and Space Administration (NASA)	NASA OIG has 14 open cases of grantee fraud with a foreign influence component. The number of such cases has approximately doubled in the last year.
Department of Defense (DOD)	One DOD investigative service noted it had 9 open cases involving foreign influence at U.S. universities.
Department of Energy (DOE)	DOE OIG has 21 active cases involving foreign influence, and most involve recipients of grants and cooperative agreements.

Source: Agency documents and interviews with agency and OIG officials | GAO-21-130

Note: This table may not represent all cases of foreign influence under investigation, in part because of pending and ongoing investigations.

Agency officials told us that they can learn about allegations of failure to disclose required information that could help identify conflicts of interest through universities, tip lines, other agencies (including the Federal Bureau of Investigation), or internal program offices. According to officials and agency documents, agencies can take a range of administrative or enforcement actions when an allegation of failure to disclose required information has been substantiated. These actions include asking the researcher’s university to open an investigation, suspending the grant, or referring the case for prosecution. Figure 2 shows some of the different ways agencies and universities can be informed of alleged foreign influence through failures to disclose required information, and some of the possible actions that can be taken if the allegations are substantiated.

Figure 2: A Composite of Agency and University Procedures for Addressing Cases of Alleged Foreign Influence



Source: GAO analysis of agency and university documents and interviews. | GAO-21-130

Text of Figure 2: A Composite of Agency and University Procedures for Addressing Cases of Alleged Foreign Influence

1. University receives information from FBI about potential foreign influence
 - a. University investigates allegation
 - i. University may refer allegation to DOJ
 - ii. Result: DOJ may bring criminal charges, potential for imprisonment
 - b. Allegation substantiated?
 - i. Yes-Result: University imposes discipline (may fire researcher)
2. Grant officer notices a discrepancy between submitted materials and the scientific record
 - a. Program officer may ask university to investigate and report back to agency
 - b. Program officer may refer allegation to IG
 - c. Result: Agency may implement discipline (return of grant, disbarment)
3. Inspector general (IG) receives allegation from whistleblower hotline
 - a. IG investigates allegation
 - b. Allegation substantiated?
 - i. Yes-Result: IG may propose discipline (return of grant, disbarment)
 - ii. Yes-Result: IG may refer allegation to DOJ

Note: Procedures for assessing cases of alleged foreign influence and sources of allegations may vary, for example, depending on the agency involved.

However, three of the five agencies we reviewed—NASA, DOD, and DOE—lack clear written processes or procedures for managing allegations of failure to disclose required information, which can identify potential conflicts of interest. We consider an agency to have a clear written procedure if that procedure explicitly addresses cases of failure to disclose required information such as foreign affiliations, assigns roles and responsibilities, and includes enforcement actions that may be taken as a result of substantiated allegations. We reviewed NASA and DOE policies and memoranda on how agency employees should manage cases of fraud, and officials at both agencies told us that failure to disclose required information, such as those that identify potential foreign influence, could be considered fraud. Officials stated that such allegations of failure to disclose should be referred to the agency’s OIG. However, these policies did not explicitly address failure to disclose required information. Moreover, OIG officials told us that they did not think a policy noting that all cases of fraud should be referred to the OIG was sufficient,

because such a policy would require employees to make an assessment that a case of failure to disclose constituted fraud, which may or may not be accurate.³⁶

In addition, during interviews, officials at some agencies were sometimes unclear on how they would manage allegations of failure to disclose required information or why a certain enforcement action would be chosen over another. In addition, some agency officials said that they could not identify which office within the agency should investigate allegations of foreign influence.

In contrast, NIH and NSF have written procedures for managing allegations of failure to disclose required information, such as foreign affiliations. Their documents outline the investigative process, establish roles and responsibilities, and allow for the nuances of each case. For example, NIH's procedures provide details on the routing of allegations to different groups within the agency, provide options for administrative actions, and note that each allegation should be evaluated individually and NIH actions should be commensurate with degree of noncompliance.

Documentation is a necessary part of an effective internal control system. *Standards for Internal Control in the Federal Government* states that management should develop and maintain documentation for organizational procedures, and document in policies for each unit its responsibility for an operational process.³⁷ Furthermore, OSTP officials told us that it is important for agencies to have such procedures, and that these procedures should be publicly available, as appropriate. Written procedures on roles and responsibilities, as well as steps for addressing alleged cases of failure to disclose required information such as foreign influence, could better position agencies to ensure that staff understand how to manage these allegations and consistently apply enforcement actions.

³⁶NASA's internal training materials indicate that the misrepresentation of and failure to disclose foreign affiliations may constitute fraud. However, the agency has not put this information into written processes or procedures.

³⁷[GAO-14-704G](#).

Stakeholders Identified Opportunities to Improve Responses to Foreign Influence in Federally Funded Research

In interviews, agency officials, university association representatives, university administrators, and principal investigators noted several opportunities to improve agency responses to foreign influence in federally funded research.³⁸ Agencies have begun to take steps to address the issue of foreign influence, and OSTP plans to address this topic in its guidance. Many of the stakeholder responses fit into five common themes, as shown in table 3 and detailed below.

Table 3: Common Themes Stakeholders Identified to Improve the Ability to Identify and Address Foreign Threats to Federally Funded Research

Stakeholder Group	Harmonize grant proposal requirements	Reduce burden on universities	Better communicate identified risks	Disclose participation in foreign talent recruitment programs	Provide training on foreign risks
Agency officials	Yes	Yes	No	Yes	No
University associations	Yes	Yes	Yes	Yes	Yes
University administrators	Yes	Yes	Yes	Yes	No
Principal investigators	Yes	No	Yes	Yes	No

Source: GAO analysis of interviews with agency officials, university association representatives, university administrators, and principal investigators. | GAO-21-130

Harmonize grant proposal requirements. University administrators told us they need additional guidance on what agencies require researchers to provide as part of grant proposals. Officials from agencies and universities also said they could benefit if agencies’ disclosure requirements, both those required to be made to the university and those required as part of a grant proposal, were harmonized, especially those related to risks of foreign influence. In particular, university administrators at six of the 11 universities we interviewed told us that if agencies provided more uniform guidance and forms, it would help clarify agencies’ expectations for researchers applying for grants from multiple agencies.

³⁸According to NIH, a principal investigator is the researcher on a grant identified as having the appropriate level of authority and responsibility to direct the project or program supported by the grant.

University administrators and principal investigators also noted that harmonizing grant requirements is important to ensure clear understanding across all parties involved in addressing the risks of foreign influence. For instance, principal investigators told us that agencies need to include specific examples of the type of information that should be reported under the “other affiliations” section in the grant proposal. The investigators added that it was unclear whether foreign affiliations, associations, and activities should be reported as “other affiliations.”

Some agencies have taken steps to harmonize some aspects of the grant proposal process, officials told us. For example, NIH and NSF collaborated with the Federal Demonstration Partnership in 2019 to develop SciENCv (Science Experts Network Curriculum Vitae), a tool that lets researchers prepare biographical information for grant proposals to either agency. In interviews, representatives from university organizations and university administrators noted they support the idea of uniformity and the shared standard format, so all users are using the same form to disclose outside support and other affiliations. In addition, as part of the JCORE initiative, OSTP plans to provide guidance to grant-making agencies on harmonizing disclosure requirements and developing best practices.

Reduce burden on universities. Stakeholders also noted that harmonizing and standardizing agency requirements for disclosing financial and non-financial interests could help reduce the burden on universities associated with ensuring researchers meet requirements for grants from multiple agencies. University administrators told us ensuring each researcher has appropriately disclosed financial and non-financial interests when applying for multiple grants from different agencies requires an extensive knowledge of various requirements and time commitment on the part of the administrator. If the federal government establishes additional requirements for universities to verify disclosures to identify potential foreign influence, this would add considerable burden, according to representatives from a university association.

In interviews, university administrators noted that many universities are already fully utilizing the administrative funds they get as part of each grant to offset expenses for the additional work needed to review current

disclosure forms and requirements.³⁹ The university administrators also said that any additional requirements for a university to assess the risk of foreign influence could result in added time, effort, manpower, and budget to comply with other policies, and university budgets are already strained. Since reducing administrative burden is a major focus area of JCORE's mission, OSTP is considering how to address this as part of their forthcoming guidance to agencies on improving their conflict of interest policies.

Better communicate identified risks. In interviews, university associations, university administrators, and principal investigators said agencies should better communicate the specific risks of foreign influence they have identified to universities. University administrators told us they would like more guidance on steps agencies recommend to identify, analyze, and mitigate threats of foreign influence. In addition, 49 of 52 principal investigators we spoke with said they were not aware of OSTP's JCORE Research Security Subcommittee's initiative aimed at strengthening the security of the U.S. research enterprise. These researchers said they would like to know more about the subcommittee's efforts, including more about JCORE's forthcoming best practices on how to address foreign influence in their research. University administrators also noted timely information on specific threats of foreign influence from law enforcement and intelligence agencies would also be helpful.

OSTP's informational document presented in June 2020 provided some examples of individuals and foreign governments posing a risks to the U.S. research enterprise. OSTP officials stated that this document is a resource for agencies and the research community to better understand these risks. NIH and NSF have also issued reports addressing the risks of foreign influence.

Disclose participation in foreign talent recruitment programs.

Agency officials, university associations, university administrators, and principal investigators, expressed a wide range of views on whether researchers should be allowed to participate in foreign talent recruitment

³⁹According to OSTP's Analysis of Facilities and Administrative Costs at Universities, approximately three-quarters of federal investment in research supports the direct costs of conducting research (e.g., costs directly attributed to specific research project such as salaries, equipment, chemicals, and other materials). The remainder of the investment reimburses indirect costs which are general expenses that are not associated with a research project but are used collectively by many research projects at the university.

programs. For example, DOE prohibits its personnel and certain contractor employees from participating in foreign talent recruitment programs.⁴⁰ However, it has not imposed the same restriction on grantees.⁴¹ In interviews, NIH officials told us NIH has observed a systematic failure to disclose by participants in certain foreign talent recruitment programs. Further, NIH officials noted they have observed that some researchers readily disclose funding from some foreign sources, such as the Wellcome Trust, which is located in the United Kingdom, while at the same time not disclosing funding from Chinese sources.⁴² NIH officials also stated that, from their review of contracts with some foreign funding sources such as talent recruitment programs, these contracts expressly prohibit the researcher from disclosing the funding or their participation in the program to NIH or any other U.S. grant-making agency.

In addition, principal investigators in six out of eight universities we interviewed did not know what these talent recruitment programs were or how to identify them. Regardless, principal investigators we spoke with unanimously agreed that participation in these programs should be disclosed. DOE has taken steps to address the issue internally, but other agency officials told us that they are waiting for OSTP to release its guidance before addressing the issue of foreign talent recruitment programs in their policies for grantees.

Provide training on foreign risks. Representatives of university associations suggested that agencies provide training to principal investigators on foreign influence in federally funded research. They said such training could improve universities' ability to identify and mitigate potential risks associated with their researchers. They further added that it could also be useful for researchers who work in areas considered by the federal government as high-risk (5G, quantum mechanics, and

⁴⁰Department of Energy, *Foreign Government Sponsored or Affiliated Activities*, DOE O 486.1A (Washington, D.C.: September 4, 2020).

⁴¹DOE officials told us that the agency is planning to extend this policy to grantees.

⁴²The Wellcome Trust is a politically and financially independent foundation in the United Kingdom supporting health and science researchers. As previously noted, The Thousand Talents Plan, launched in 2008, incentivizes individuals engaged in research and development in the United States to transmit the knowledge and research gained to China in exchange for salaries, research funding, lab space, and other incentives.

artificial intelligence).⁴³ Principal investigators who often work with foreign researchers might benefit from additional training. The training would focus on ensuring the researcher complies with the expectations of the federal agency and knows the conflict of interest disclosure requirements. As noted above, NSF held a webinar in April 2020 for researchers on meeting grant proposal requirements, which provided some training on reporting foreign influence.

Conclusions

Effectively addressing the critically important threat of foreign influence in federally funded research depends, in part, on agencies having agency-wide policies on conflicts of interest, written procedures to address alleged violations, and timely guidance on how to improve policies and address foreign threats. Two of the largest research grant-making agencies—DOD and DOE—do not have agency-wide conflict of interest policies. Amid this critical threat of foreign influence in U.S. research, it is essential that DOD and DOE—agencies which support research with significant consequences for national security—develop and implement policies that equip universities conducting federal research with the information needed to help identify and mitigate conflicts of interest appropriately.

We also found that existing conflict of interest policies do not define or address non-financial interests. As a result, NIH, NSF, and NASA may receive incomplete or inaccurate information from researchers that may identify potential non-financial conflicts, which would impede the agency's ability to assess conflicts that could lead to foreign influence.

In addition, of the five selected agencies, DOD, DOE, and NASA do not have specific, documented procedures for managing allegations of failure to disclose required information, such as foreign affiliations, whether financial or non-financial. Such written procedures on roles and responsibilities as well as steps for addressing alleged cases of failure to disclose required information, such as foreign financial or in-kind support, could help agencies identify potential conflicts and ensure that staff

⁴³NIH has defined high-risk research as research with an inherent high degree of uncertainty and the capability to produce a major impact on important problems in biomedical/behavioral research. The same concept applies to the impact that similar research would have on other topical areas, such as energy and defense.

understand how to manage allegations and consistently apply enforcement actions.

Finally, although OSTP has developed interagency guidance on addressing foreign influence, the EOP has not issued this guidance. This will be an important step to enhance and expedite agencies' efforts to address foreign influence in federally funded research as most agencies are waiting for the issuance of OSTP's guidance before they update their policies. Without timely issuance of the guidance currently under review to address foreign influence, or plans for issuing any additional guidance that may be forthcoming from OSTP and EOP, agencies may not have the timely information needed to fully address the threats of foreign influence in federally funded research.

Recommendations for Executive Action

We are making a total of nine recommendations, including one to OSTP, two to DOD, two to DOE, one to HHS (NIH), two to NASA, and one to NSF. Specifically:

- The Director of the Office of Science and Technology Policy should work with the Executive Office of the President to issue the guidance that is pending review and expedite the issuance of any additional forthcoming guidance on addressing foreign threats to federally funded research. (Recommendation 1)
- The Secretary of Defense should develop an agency-wide policy on conflict of interest for grants, to address both financial and non-financial conflicts. (Recommendation 2)
- The Secretary of Defense should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic. (Recommendation 3)
- The Secretary of Energy should develop an agency-wide policy on conflict of interest for grants, to address both financial and non-financial conflicts. (Recommendation 4)
- The Secretary of Energy should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic. (Recommendation 5)
- The Secretary of Health and Human Services should instruct the Director of the National Institutes of Health to update the agency's

conflict of interest policy to include a definition on non-financial conflicts, such as the one developed by OSTP, and address these conflicts, both foreign and domestic. (Recommendation 6)

- The Administrator of the National Aeronautics and Space Administration should update the agency's conflict of interest policy to include a definition on non-financial conflicts, such as the one developed by OSTP, and address these conflicts, both foreign and domestic. (Recommendation 7)
- The Administrator of the National Aeronautics and Space Administration should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic. (Recommendation 8)
- The Director of the National Science Foundation should include a definition on non-financial conflicts in their agency policies, such as the one developed by OSTP, and address these conflicts, both foreign and domestic. (Recommendation 9)

Agency Comments and Our Evaluation

We provided a draft of our report to DOD, DOE, DOJ, HHS (NIH), NASA, NSF, and OSTP for review and comment. We received written comments from DOD, DOE, HHS (NIH), NASA, and NSF that are reprinted in appendices III through VII and summarized below. We received comments via email from OSTP that are also summarized below. DOD, DOE, NASA, and OSTP provided technical comments, which we incorporated as appropriate. DOJ told us they had no comments on the draft report.

Five of the six agencies to which we made recommendations stated that they agreed with the recommendations. NSF neither agreed nor disagreed with our recommendation. The agencies' comments are summarized below:

- In DOD's written comments, reproduced in appendix III, the agency stated that it concurred with our recommendations and that it is developing procedures for addressing and enforcing failures to disclose required information, by both foreign and domestic parties, including roles and responsibilities. In addition, DOD noted that having a conflict of interest policy or disclosure requirement will not, in itself, prevent the misappropriation of federally funded research, and the agency is working on additional policies which will mitigate such risks.

- In DOE's written comments, reproduced in appendix IV, the agency stated that it concurred with our recommendations and that it will develop interim agency-wide financial and non-financial conflict of interest policies as it works with OSTP to develop and coordinate guidance to protect federally funded research from foreign influence. In addition, the agency will identify roles and responsibilities for addressing and enforcing disclosure requirements in its interim policy. The agency expects to complete both these activities by October 31, 2021.
- In HHS's (NIH) written comments, reproduced in appendix V, the agency stated that it concurred with our recommendation and that it will amend relevant regulations, policies, and procedures to incorporate non-financial conflicts, with the understanding that NIH currently implements HHS regulation 42 C.F.R. part 50, subpart F.
- In NASA's written comments, reproduced in appendix VI, the agency stated that it concurred with our recommendations and that it anticipates the NASA Grants Policy and Compliance Branch in the Office of the Chief Financial Officer will take the lead to expand and update the agency's policies. NASA stated that it will expand the agency's conflict of interest policy to include a definition of non-financial conflicts and expand its disclosure requirements, and have this new policy finalized by the end of June 2021. The agency also noted that it will document procedures, including roles and responsibilities, for addressing and enforcing failures to disclose required information, both foreign and domestic, and have this new policy in place by the end of August 2021.
- In NSF's written comments, reproduced in appendix VII, the agency did not specify whether it agreed or disagreed with our recommendation to include a definition and discussion of non-financial conflicts. However, the agency stated that NSF's financial conflict of interest policy and disclosure policies are for fundamentally different purposes, and should not be combined. We clarified to NSF that the recommendation does not imply that the agency should combine these two policies, but that a definition and discussion of non-financial conflicts should be included in the agency-wide policies, either for conflicts of interest, disclosure requirements, or somewhere else equally appropriate. The agency also stated that it will include the following in their outreach on research security risks: risks posed by multiple employers, obligations to dedicate time in excess of institutional or funding agency policies or commitments, and improperly sharing information with, or withhold information from, an employer or funding agency. These are important aspects of

addressing non-financial conflicts, as noted by OSTP. However, we maintain that it is important to document these risks, along with how the agency defines these conflicts, so that all researchers have access to the information and fully understand what they need to report on their grant proposals to help identify undue foreign influence.

In addition, NSF noted that a researcher having multiple professional appointments will not necessarily result in non-financial conflicts of interest. We clarified to NSF that the report does not state that all multiple professional appointments will always result in a conflict of interest, but rather that non-financial conflicts may include foreign academic appointments and in-kind support. The agency stated that it will continue to address risks to NSF-funded research through emphasis on disclosure, university responsibilities for financial conflicts of interest, and through working with the NSF OIG to take actions such as suspension, termination, and debarment when necessary. NSF will continue to develop and implement additional research security policies to address improper foreign influence on federally-funded research.

- In its emailed comments, OSTP stated that it agreed with our recommendation to work with EOP components to issue the guidance pending review and expedite any additional forthcoming guidance. The agency noted that the guidance is driven by an EOP-led process rather than OSTP, and OSTP therefore does not direct the timing of issuance.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, the Secretary of Energy, the Secretary of Health and Human Services, the Administrator of the National Aeronautics and Space Administration, the Attorney General, the Director of the National Science Foundation, the Director of the White House Office of Science and Technology Policy, and other interested parties. In addition, the report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions regarding this report, please contact me at (202) 512-6888 or wrightc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VIII.

Sincerely yours,

Letter

A handwritten signature in black ink that reads "Candice N. Wright". The signature is written in a cursive, flowing style.

Candice N. Wright
Acting Director
Science, Technology Assessment, and Analytics

Appendix I: Objectives, Scope, and Methodology

You asked us to review issues related to foreign influence in federally funded research through agency and university conflict of interest policies and disclosure requirements. This report examines (1) the extent to which selected agencies and universities have conflict of interest policies that address potential foreign influence, (2) the extent to which selected agencies have mechanisms to monitor and enforce policies and requirements, and (3) the views of selected stakeholders on options to improve agencies' and universities' ability to identify and address foreign influence in federally funded research.

For all of our objectives, we first selected the top five agencies with the largest amount of funding for federal research, which comprise 89 percent of all reported federal research and development expenditures at universities in fiscal 2018, according to the National Science Foundation's (NSF) Higher Education Research and Development (HERD) survey for 2018, the latest year available. These were the Department of Health and Human Services (HHS), NSF, the National Aeronautics and Space Administration (NASA), the Department of Defense (DOD), and the Department of Energy (DOE). Because research and development spending by the National Institutes of Health (NIH) accounted for 98 percent of all R&D expenditures by HHS and 57 percent of all federal research and development expenditures in fiscal 2017 (the latest year available), we chose to focus our review on NIH, rather than HHS as a whole.¹

We then reviewed relevant laws, regulations, and guidance, as well as agency documents, such as grant policy manuals, grant application forms, and external communications. In addition, we interviewed officials from all five agencies to obtain their perspectives on their agencies' conflict of interest policies. We also interviewed officials from the White House Office of Science and Technology Policy (OSTP) to obtain their perspectives on interagency efforts to improve research security.

To evaluate the extent to which selected agencies have conflict of interest policies that address foreign influence, we reviewed agency grant policies

¹NIH is a subagency of HHS, but for cohesion, we refer to NIH as an agency in the report.

for information on financial and non-financial conflicts of interest, as well as disclosure requirements and example grant funding announcements. We determined that the structure and responsibility component and the objectives and risk tolerances component of federal standards for internal control were significant to this objective, along with the underlying principles that (1) management should define reporting objectives clearly, in alignment with the organization's mission and goals, and (2) management should define objectives clearly, including the time frames for achieving them. We assessed whether the agencies had implemented these principles with regard to their conflict of interest policies. In addition, we reviewed statutory provisions in the National Defense Authorization Act for Fiscal Year 2020.²

To describe the extent to which selected universities have conflict of interest policies, we identified a non-generalizable sample of 11 research universities, as a subset of all universities that received over \$500 million in federal funding combined from at least two of the agencies under review in fiscal years 2018 and 2019. We selected this sample to be geographically diverse and include both public and private universities. We then reviewed the publicly available conflict of interest and conflict of commitment policies of these universities for definitions and requirements and discussion of foreign interests and commitments. Our review of these university policies is not generalizable to all universities that receive federal funding, but it provides illustrative examples.

To evaluate the extent to which selected agencies have mechanisms to monitor and enforce policies and requirements, in addition to the steps noted above, we reviewed agency policies and procedures, if any, related to monitoring and enforcing conflict of interest policies. We also interviewed officials from the Department of Justice (DOJ) to obtain their perspectives on law enforcement efforts to mitigate foreign influence in federally funded research. We also interviewed the Offices of the Inspector General at all five agencies to obtain their perspectives on recent cases of foreign influence in research funded by their agencies. We determined that the control activities component of federal standards for internal control was significant to this objective, along with the underlying principle that management should document internal controls to meet operational needs. We also determined that our previous work on interagency collaboration was significant to this objective, along with the

²National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, tit. XVII, sub. A, § 1746(a), 133 Stat. 1198, 1843-45 (2019) (codified at 42 U.S.C. § 6601 note).

underlying principle that agencies should clarify roles and responsibilities and agree on a process for making and enforcing decisions. We assessed whether the agencies had implemented these principles with regard to their monitoring and enforcement of conflict of interest policies.

To determine the views of selected stakeholders on options to improve agencies' and universities' ability to identify and address foreign influence in federally funded research, we interviewed agency officials from the agencies identified above, administrators (including vice presidents of research), and principal investigators at the universities identified above, and organizations that represent university interests. We conducted group interviews with a total of 52 principal investigators at eight of the 11 universities we identified. We chose these principal investigators because they received the largest grants from the agencies under review at the universities we contacted; we also took into account whether the researcher was a first-time researcher at the university, whether they had grants from multiple agencies, and whether there were students or postdoctoral researchers working in the researcher's laboratory. Although the results of these interviews are not generalizable to all stakeholders, they are designed to represent a range of perspectives and experiences, including university administrators and principal investigators from both public and private institutions from various parts of the nation and a range of research areas, reflecting the diversity of areas of federal research and development.

We conducted this performance audit from December 2019 to December 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Agency Disclosure Language and Requirements

All agencies require the grantee institution to disclose information on all key personnel’s biography, current and pending support, and foreign components. Table 4 shows information required by agencies on researcher biographies.

Table 4: Information Required by Agencies on Researcher Biographies

Agency	Required information
National Institutes of Health	<ul style="list-style-type: none"> Baccalaureate or other initial professional education, such as nursing. Postdoctoral, residency, and clinical fellowship training, as applicable. Relevant positions held, concluding with the present position.
National Science Foundation	<ul style="list-style-type: none"> Undergraduate and graduate education and postdoctoral training (including location). All academic/professional appointments including any titled academic, professional, or institutional position whether or not remuneration is received, and whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary).
National Aeronautics and Space Administration	<ul style="list-style-type: none"> Professional experiences and positions. Bibliography of publications, especially those relevant to the proposed investigation, as well as a description of scientific, technical and management performance on relevant prior research efforts.
Department of Defense (DOD)	<ul style="list-style-type: none"> Education and the year in which each degree was received. Relevant experience, publications, and funding received in the area of interest, and any previous involvement and experiences with the DOD. All previous DOD funding including project titles, as specified in the Funding Opportunity Announcement.
Department of Energy	<ul style="list-style-type: none"> Undergraduate, graduate and postdoctoral training. Research and professional experience. Funding Opportunity Announcements require applicants to submit resumes for key personnel.

Source: GAO presentation of information in agency documents. | GAO-21-130.

Note: The DOD information in this table is based on a sample Funding Opportunity Announcement.

Appendix II: Agency Disclosure Language and Requirements

Table 5 shows the information agencies collect on researchers' current and pending support, either financial or non-financial.

Table 5: Information Agencies Collect on Current and Pending Support

Agency	Required Information
National Institutes of Health	<ul style="list-style-type: none"> Other support to include all financial resources, whether federal, non-federal, commercial or institutional, available in direct support of an individual's research endeavors, including but not limited to research grants, cooperative agreements, contracts, and/or institutional awards.
National Science Foundation	<ul style="list-style-type: none"> Current and pending support to include all resources made available to an individual in support of and/or related to all of his/her research efforts, regardless of whether or not they have monetary value. In-kind contributions (such as office/laboratory space, equipment, supplies, employees, students).
National Aeronautics and Space Administration	<ul style="list-style-type: none"> All ongoing and pending projects and proposals (regardless of salary support) in which they are performing or will perform any part of the work. For proposals, each current and pending project: title of funded project or proposal title; name of principal investigator (PI) on award or proposal; program name (if appropriate) and sponsoring agency or organization, including a point of contact with their telephone number and email address; performance period; total amount received by that investigator (including indirect costs) or the amount per year if uniform (e.g., \$50,000/year); and time commitment by the investigator for each year of the period of performance.
Department of Defense (DOD)	<ul style="list-style-type: none"> All current projects and any future support the individual has applied to receive, regardless of the source. Information should include the title and objectives of the other research projects; the percentage per year to be devoted to the other projects; the total amount of support the individual is receiving in connection to each of the other research projects or will receive if other proposals are awarded; name and address of the agencies and/or other parties supporting the other research projects; and period of performance for the other research projects.
Department of Energy (DOE)	<ul style="list-style-type: none"> Information on other applications for a similar project or related work (i.e., work that relates directly or indirectly to the proposed research and development project pending with any federal or non-federal entity). All funding from any federal or non-federal entity that the applicant or any other members of the project team is currently receiving or has received within the last 5 years in the same technology area as the proposed research and development project.

Source: GAO presentation of information in agency documents. | GAO-21-130.

Note: The DOD information included in this table is based on a sample Funding Opportunity Announcement. For DOE, three components provided information noted in the table above (the Office of Energy Efficiency and Renewable Energy, the Advanced Research Projects Administration – Energy, and the Office of Science).

Appendix II: Agency Disclosure Language and Requirements

Table 6 shows information agencies require on foreign components of the research to be funded.

Table 6: Information Required by Agencies Related to Foreign Components of Research

Agency	Foreign component language
National Institutes of Health	<ul style="list-style-type: none"> • Activities outside the United States or partnership with international collaborators. • Applicant organization is a foreign institution, or if the project includes a foreign component, provide a justification.
National Science Foundation	<ul style="list-style-type: none"> • Funding by a foreign organization or international activities.
National Aeronautics and Space Administration	<ul style="list-style-type: none"> • Activities outside the United States or partnership with International collaborators. • Any involvement with collaborators in China or with Chinese organizations, or if the proposed work includes activities in China. • Any activity to be conducted outside the United States or its territories excluding travel for meetings or conferences.
Department of Defense (DOD)	<ul style="list-style-type: none"> • Activities outside the United States or partnerships with international collaborators.
Department of Energy (DOE)	<ul style="list-style-type: none"> • Activities outside the United States or partnerships with international collaborators.

Source: GAO presentation of information in agency documents. | GAO-21-130.

Note: For DOD, officials noted that the information noted above is required by some components, but not all. For DOE, officials noted that the Office of Science requires information on foreign activities, while the Office of Energy Efficiency and Renewable Energy and the Advanced Research Projects Agency – Energy do not permit any part of the research to be performed outside the United States without a waiver.

Appendix III: Comments from the Department of Defense



RESEARCH
AND ENGINEERING

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3080 DEFENSE PENTAGON
WASHINGTON, DC 20301-3080

Ms. Candice Wright
Acting Director, Science, Technology Assessment, and Analytics
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Wright:

Enclosed is the Department of Defense (DoD) response to the Government Accountability Office (GAO) draft report GAO-21-130, "Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence," dated December 1, 2020 (GAO Code 104016).

The DoD response takes the form of two enclosures: the first provides DoD's concurrence with the GAO's recommendations and the second provides DoD's technical comments on the body of the report. My point of contact is Dr. Bindu Nair, Director, Basic Research Office, at 703-509-6185 or bindu.r.nair.civ@mail.mil.

Sincerely,

BLAKE.DOUGLA^{Digitally signed by}
S.C.1158146602^{BLAKE.DOUGLAS.C.1158146602}
^{Date: 2020.11.15 16:21:30 -0500}

Douglas C. Blake
Acting Deputy Director
Research, Technology, and Laboratories

Enclosures:
As stated



OFFICE OF THE UNDER SECRETARY OF DEFENSE
3030 DEFENSE PENTAGON
WASHINGTON, DC 20301-3030

**GAO DRAFT REPORT DATED DECEMBER 1, 2020
GAO-21-130 (GAO CODE 104016)**

**“FEDERAL RESEARCH: AGENCIES NEED TO ENHANCE POLICIES TO ADDRESS
FOREIGN INFLUENCE”**

**DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATION**

RECOMMENDATION 2: The GAO recommends that the Secretary of Defense should develop an agency-wide policy on conflict of interest for grants, to address both financial and non-financial conflicts.

DoD RESPONSE: The Department of Defense concurs with Recommendation 2. Although DoD agrees with the recommendation, DoD notes that having a conflict of interest or financial disclosure reporting requirement for principal investigators will not, by itself, prevent the misappropriation of federally funded research data and technologies by researchers. The Department is working on additional policies which will be necessary to mitigate the risk of misappropriation.

RECOMMENDATION 3: The GAO recommends that the Secretary of Defense should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic.

DoD RESPONSE: Department of Defense concurs with Recommendation 3. DoD is developing procedures for addressing and enforcing failures to disclose required information, by both foreign and domestic parties, including roles and responsibilities within the Department.

Text of Appendix III: Comments from the Department of Defense

Page 1

Ms. Candice Wright

Acting Director, Science, Technology Assessment, and Analytics

U.S. Government Accountability Office 441 G Street, NW

Washington, DC 20548

Dear Ms. Wright:

Enclosed is the Department of Defense (DoD) response to the Government Accountability Office (GAO) draft report GAO-21-130, "Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence," dated December 1, 2020 (GAO Code 104016).

The DoD response takes the form of two enclosures: the first provides DoD's concurrence with the GAO's recommendations and the second provides DoD's technical comments on the body of the report. My point of contact is Dr. Bindu Nair, Director, Basic Research Office, at 703-509-6185 or bindu.r.nair.civ@mail.mil.

Sincerely,

Douglas C. Blake Acting Deputy Director

Research, Technology, and Laboratories

Enclosures:

As stated

Page 2

GAO DRAFT REPORT DATED DECEMBER 1, 2020 GAO-21-130 (GAO CODE 104016) "FEDERAL RESEARCH: AGENCIES NEED TO ENHANCE POLICIES TO ADDRESS FOREIGN INFLUENCE"

DEPARTMENT OF DEFENSE COMMENTS TO THE GAO
RECOMMENDATION

RECOMMENDATION 2: The GAO recommends that the Secretary of Defense should develop an agency-wide policy on conflict of interest for grants, to address both financial and non-financial conflicts.

DoD RESPONSE: The Department of Defense concurs with Recommendation 2. Although DoD agrees with the recommendation, DoD notes that having a conflict of interest or financial disclosure reporting requirement for principal investigators will not, by itself, prevent the misappropriation of federally funded research data and technologies by researchers. The Department is working on additional policies which will be necessary to mitigate the risk of misappropriation.

RECOMMENDATION 3: The GAO recommends that the Secretary of Defense should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic.

DoD RESPONSE: Department of Defense concurs with Recommendation 3. DoD is developing procedures for addressing and enforcing failures to disclose required information, by both foreign and domestic parties, including roles and responsibilities within the Department.

Appendix IV: Comments from the Department of Energy



Department of Energy
Office of Science
Washington, DC 20585

Office of the Director

November 30, 2020

Ms. Candice N. Wright
Acting Director
Science, Technology Assessments,
and Analytics
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Ms. Wright:

The Department of Energy (DOE) appreciates the opportunity to provide a response to the Government Accountability Office's (GAO) draft report titled, *Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence (GAO-21-130)*.

The draft report contained a total of nine recommendations, of which GAO directed two recommendations to the DOE. DOE concurs with GAO's recommendations.

The Department has established a working group to develop interim agency-wide policies regarding financial and non-financial conflict of interest for recipients of DOE financial assistance awards and will identify roles and responsibilities for addressing and enforcing information disclosure required for all entities.

The attached provides DOE's response to the recommendations contained in the report.

GAO should direct any questions to Mr. John LaBarge, Office of Science, at 202-586-9747 or via e-mail at john.labarge@science.doe.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "CF", written over a light blue circular stamp.

Chris Fall
Director
Office of Science

Enclosure

**DOEs Response to GAO Draft Report
Federal Research: Agencies Need to Enhance Policies to
Address Foreign Influence (GAO-21-130)**

Recommendation 4: The Secretary of Energy should develop an agency-wide policy on conflict of interest for grants, to address both financial and non-financial conflicts.

Management Response: The Department of Energy (DOE) concurs with the recommendation.

DOE has established a working group and will continue to work internally to develop interim agency-wide policy regarding financial and non-financial conflicts of interest for recipients of Departmental financial assistance awards as it works with the White House Office of Science and Technology Policy through the Joint Committee on the Research Environment to develop and coordinate guidance for federal agencies to protect federally funded research and development from foreign interference, cyber-attacks, theft or espionage and to develop common definitions and best practices for federal science agencies and grantees.

Estimated Completion Date: October 31, 2021

Recommendation 5: The Secretary of Energy should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic.

Management Response: DOE concurs with the recommendation.

As part of the interim agency-wide policy regarding financial and non-financial conflicts of interest for recipients of Departmental financial assistance awards DOE will identify roles and responsibilities for addressing and enforcing information disclosure required for all entities.

Estimated Completion Date: October 31, 2021

Text of Appendix IV: Comments from the Department of Energy

Page 1

November 30, 2020

Ms. Candice N. Wright Acting Director

Science, Technology Assessments, and Analytics

U.S. Government Accountability Office 441 G Street, N.W.

Washington, DC 20548

Dear Ms. Wright:

The Department of Energy (DOE) appreciates the opportunity to provide a response to the Government Accountability Office's (GAO) draft report titled, *Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence* (GAO-21-130).

The draft report contained a total of nine recommendations, of which GAO directed two recommendations to the DOE. DOE concurs with GAO's recommendations.

The Department has established a working group to develop interim agency-wide policies regarding financial and non-financial conflict of interest for recipients of DOE financial assistance awards and will identify roles and responsibilities for addressing and enforcing information disclosure required for all entities.

The attached provides DOE's response to the recommendations contained in the report.

GAO should direct any questions to Mr. John LaBarge, Office of Science, at 202-586-9747 or via e-mail at john.labarge@science.doe.gov.

Sincerely,

Chris Fall Director

Office of Science

Enclosure

Page 2

DOEs Response to GAO Draft Report Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence (GAO-21-130)

Recommendation 4: The Secretary of Energy should develop an agency-wide policy on conflict of interest for grants, to address both financial and non-financial conflicts.

Management Response: The Department of Energy (DOE) concurs with the recommendation.

DOE has established a working group and will continue to work internally to develop interim agency-wide policy regarding financial and non-financial conflicts of interest for recipients of Departmental financial assistance awards as it works with the White House Office of Science and Technology Policy through the Joint Committee on the Research Environment to develop and coordinate guidance for federal agencies to protect federally funded research and development from foreign interference, cyber-attacks, theft or espionage and to develop common definitions and best practices for federal science agencies and grantees.

Estimated Completion Date: October 31, 2021

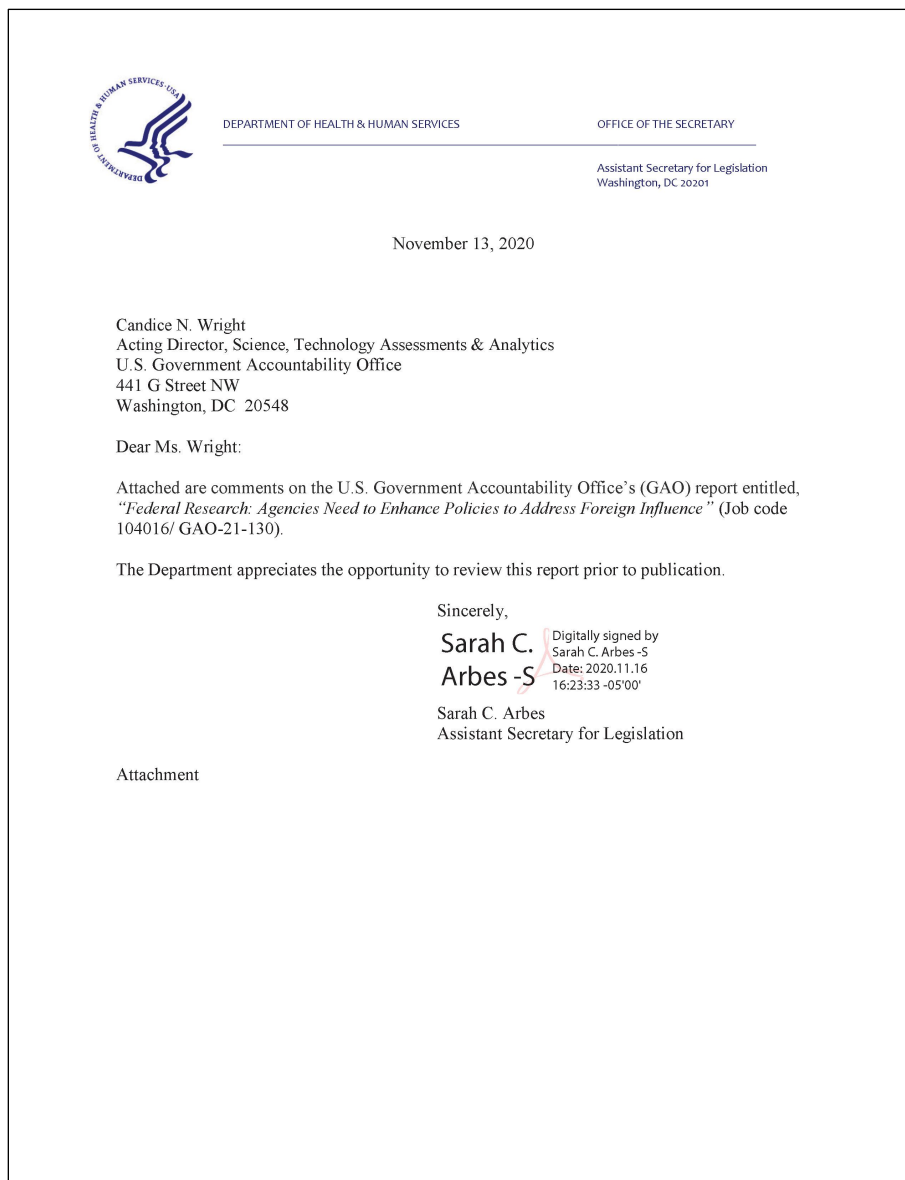
Recommendation 5: The Secretary of Energy should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic.

Management Response: DOE concurs with the recommendation.

As part of the interim agency-wide policy regarding financial and non-financial conflicts of interest for recipients of Departmental financial assistance awards DOE will identify roles and responsibilities for addressing and enforcing information disclosure required for all entities.

Estimated Completion Date: October 31, 2021

Appendix V: Comments from the Department of Health and Human Services



**Appendix V: Comments from the Department
of Health and Human Services**

**GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN
SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT
REPORT ENTITLED: FEDERAL RESEARCH: AGENCIES NEED TO ENHANCE
POLICIES TO ADDRESS FOREIGN INFLUENCE (GAO-21-130)**

The U.S. Department of Health and Human Services (HHS) appreciates the opportunity from the Government Accountability Office (GAO) to review and comment on this draft report.

Recommendation 1

The Secretary of Health and Human Services should instruct the director of the National Institutes of Health to update the agency's conflict of interest policy to include a definition on non-financial conflicts, such as the one developed by OSTP, and address these conflicts, both foreign and domestic.

HHS Response

HHS concurs with GAO's recommendation, with the understanding that the National Institutes of Health (NIH), along with other HHS Operating Divisions, currently implements an HHS regulation 42 CFR50, Subpart F. HHS will follow standard procedures to amend the relevant regulations, policies, and procedures to incorporate non-financial conflicts.

Text of Appendix V: Comments from the Department of Health and Human Services

Page 1

November 13, 2020

Candice N. Wright

Acting Director, Science, Technology Assessments & Analytics

U.S. Government Accountability Office 441 G Street NW

Washington, DC 20548 Dear Ms. Wright:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, "Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence" (Job code 104016/ GAO-21-130).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Sarah C. Arbes

Assistant Secretary for Legislation

Attachment

Page 2

GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED: FEDERAL RESEARCH: AGENCIES NEED TO ENHANCE POLICIES TO ADDRESS FOREIGN INFLUENCE (GAO-21-130)

The U.S. Department of Health and Human Services (HHS) appreciates the opportunity from the Government Accountability Office (GAO) to review and comment on this draft report.

Recommendation 1

The Secretary of Health and Human Services should instruct the director of the National Institutes of Health to update the agency's conflict of interest policy to include a definition on non-financial conflicts, such as the one developed by OSTP, and address these conflicts, both foreign and domestic.

HHS Response

HHS concurs with GAO's recommendation, with the understanding that the National Institutes of Health (NIH), along with other HHS Operating Divisions, currently implements an HHS regulation 42 CFR50, Subpart F. HHS will follow standard procedures to amend the relevant regulations, policies, and procedures to incorporate non-financial conflicts.

Appendix VI: Comments from the National Aeronautics and Space Administration

National Aeronautics and Space Administration



Headquarters
Washington, DC 20546-0001

November 19, 2020

Office of the Chief Financial Officer

Ms. Candice N. Wright
Acting Director, Science, Technology Assessments, and Analytics
United States Government Accountability Office
Washington, DC 20548

Dear Ms. Wright:

The National Aeronautics and Space Administration (NASA) appreciates the opportunity to review and comment on the Government Accountability Office (GAO) draft report entitled, "Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence" (GAO-21-130), dated November 20, 2020.

In the draft report, GAO makes two recommendations to NASA designed to address non-financial conflicts of interest.

Specifically, GAO recommends the following:

Recommendation 1: The Administrator of the National Aeronautics and Space Administration should update the agency's conflict of interest policy to include a definition on non-financial conflicts, such as the one developed by the Office of Science and Technology Policy (OSTP), and address these conflicts, both foreign and domestic.

Management's Response: NASA concurs with this recommendation, which we understand only applies to grants and cooperative agreements and excludes contracts. Consequently, the NASA Grants Policy and Compliance Branch in the Office of the Chief Financial Officer will take the lead on expanding the Agency's conflict of interest policy for grants and cooperative agreements to include a definition of non-financial conflicts. Moreover, the policy will be updated to address these conflicts by expanding conflict of interest disclosure requirements.

Estimated Completion Date: Given that the final GAO report is expected to be published in December 2020 and that extensive internal coordination and concurrence will be required prior to implementing this new policy, NASA intends to have the new policy finalized by the end of June 2021.

Recommendation 2: The Administrator of the National Aeronautics and Space Administration should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic.

Management's Response: NASA concurs with this recommendation. The NASA Grants Policy and Compliance Branch in the Office of the Chief Financial Officer will take the lead on coordinating with the relevant NASA offices to document procedures, including roles and responsibilities, for addressing and enforcing failures to disclose the required information, both foreign and domestic.

Estimated Completion Date: Given that the final GAO report is expected to be published in December 2020 and that extensive internal coordination and concurrence will be required to document procedures, including assigning roles and responsibilities, NASA intends to have enforcement procedures associated with the new policy in place by the end of August 2021.

We have reviewed the draft report for information that should not be publicly released. As a result of this review, we have not identified any information that should not be publicly released.

Once again, thank you for the opportunity to comment on the subject draft report. If you have any questions or require additional information, please contact Aliza Margolies on (202) 358-2487.

Sincerely,

STEPHEN
SHINN

Stephen Shinn
Acting Chief Financial Officer

 Digitally signed by STEPHEN SHINN
Date: 2020.11.19 17:11:37 -0500

Text of Appendix VI: Comments from the National Aeronautics and Space Administration

Page 1

November 19, 2020

Office of the Chief Financial Officer

Ms. Candice N. Wright

Acting Director, Science, Technology Assessments, and Analytics United States
Government Accountability Office

Washington, DC 20548

Dear Ms. Wright:

The National Aeronautics and Space Administration (NASA) appreciates the opportunity to review and comment on the Government Accountability Office (GAO) draft report entitled, “Federal Research: Agencies Need to Enhance Policies to Address Foreign Influence” (GAO-21-130), dated November 20, 2020.

In the draft report, GAO makes two recommendations to NASA designed to address non- financial conflicts of interest.

Specifically, GAO recommends the following:

Recommendation 1: The Administrator of the National Aeronautics and Space Administration should update the agency’s conflict of interest policy to include a definition on non-financial conflicts, such as the one developed by the Office of Science and Technology Policy (OSTP), and address these conflicts, both foreign and domestic.

Management’s Response: NASA concurs with this recommendation, which we understand only applies to grants and cooperative agreements and excludes contracts. Consequently, the NASA Grants Policy and Compliance Branch in the Office of the Chief Financial Officer will take the lead on expanding the Agency’s conflict of interest policy for grants and cooperative agreements to include a definition of non-financial conflicts. Moreover, the

policy will be updated to address these conflicts by expanding conflict of interest disclosure requirements.

Estimated Completion Date: Given that the final GAO report is expected to be published in December 2020 and that extensive internal coordination and concurrence will be required prior to implementing this new policy, NASA intends to have the new policy finalized by the end of June 2021.

Page 2

Recommendation 2: The Administrator of the National Aeronautics and Space Administration should document procedures, including roles and responsibilities for addressing and enforcing failures to disclose required information, both foreign and domestic.

Management's Response: NASA concurs with this recommendation. The NASA Grants Policy and Compliance Branch in the Office of the Chief Financial Officer will take the lead on coordinating with the relevant NASA offices to document procedures, including roles and responsibilities, for addressing and enforcing failures to disclose the required information, both foreign and domestic.

Estimated Completion Date: Given that the final GAO report is expected to be published in December 2020 and that extensive internal coordination and concurrence will be required to document procedures, including assigning roles and responsibilities, NASA intends to have enforcement procedures associated with the new policy in place by the end of August 2021.

We have reviewed the draft report for information that should not be publicly released. As a result of this review, we have not identified any information that should not be publicly released.

Once again, thank you for the opportunity to comment on the subject draft report. If you have any questions or require additional information, please contact Aliza Margolies on (202) 358-2487.

Sincerely,

Stephen Shinn

Acting Chief Financial Officer

Appendix VII: Comments from the National Science Foundation



National Science Foundation
Office of the Director

November 24, 2020

Candice N. Wright
Acting Director
Science, Technology Assessment, and Analytics
U.S. Government Accountability Office
441 G Street, NW
Washington, D.C. 20548

Dear Ms. Wright,

Thank you for the opportunity for the National Science Foundation (NSF) to respond to the U.S. Government Accountability Office (GAO) draft report, “Agencies Need to Enhance Policies to Address Foreign Influence.” NSF strongly agrees with the draft report’s statement that “Federal agencies that fund research have a strong interest in ensuring that the underlying research is scientifically rigorous and free of bias such as foreign influence.” We appreciate that the draft report acknowledged the policies NSF has in place regarding conflicts of interest and proposal disclosures and the many efforts that NSF has implemented since it became aware of concerns regarding undue foreign influence on federally-funded research in late 2017.

Background and Context for NSF’s Response

As NSF learned of concerns regarding improper foreign influence on NSF-funded research, the agency took immediate action to mitigate the risks, including:

- The creation of a new leadership position, Chief of Research Security Strategy and Policy (CRSSP) in March 2020, which is a unique position within the federal government.
- Under the CRSSP, an internal Research Security Strategy and Policy Group was formed to review, oversee, and make recommendations on all aspects of research security strategy and policy for NSF.
- NSF established a comprehensive communications and outreach campaign both within the agency, and externally with the research community to convey risks regarding foreign influence, including concerns about foreign talent recruitment plans.
- The CRSSP established a close working relationship with the NSF Office of Inspector General (OIG), which investigates incidents of potential fraud, false statements, and patterns that point to the withholding of required disclosure information.

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Appendix VII: Comments from the National Science Foundation

- As a result of these investigations, NSF has suspended and terminated grants and has debarred researchers from receiving federal grant funding. Since 2018, NSF has recovered more than \$5M in funding from these actions.

NSF Response to GAO Recommendation #9

The GAO draft report provided one recommendation for NSF. The recommendation and NSF's response are discussed below:

GAO Recommendation: "The Director of the National Science Foundation should include a definition on non-financial conflicts in their agency policies, such as the one developed by OSTP, and address these conflicts, both foreign and domestic."

NSF Response: As the financial conflict of interest policy (FCOI) and proposal disclosure policies are for fundamentally different purposes, they should not be combined. NSF will continue to address risks to NSF-funded research through emphasis on disclosure, on organizational responsibilities for FCOI, and through working with the NSF OIG to take actions such as suspension, termination, and debarment when necessary. NSF's CRSSP will continue to develop and implement additional research security policies to address the ever-changing landscape of improper foreign influence on federally-funded research. NSF will include the following in NSF's outreach on research security risks: risks posed by multiple employers, obligations to dedicate time in excess of institutional or funding agency policies or commitments, and improperly sharing information with, or withhold information from, an employer or funding agency.

Discussion

At the outset, the definitions of "conflict of interest" and "conflict of commitment" defined by the White House Joint Committee on the Research Environment (JCORE) Subcommittee on Research Security and referenced in the GAO draft report, are intended as a resource. No new requirements are imposed by the informational document from JCORE.

More broadly, as the GAO draft report acknowledged, NSF already has both an agencywide financial FCOI policy and proposal disclosure policies. NSF would like to emphasize that the agency's FCOI policy is separate and distinct from its disclosure policies, and each serves a fundamentally different purpose.

The purpose of NSF's FCOI policy is to prevent significant financial interests of the investigator from affecting the design, conduct or reporting of sponsored research. As recipients of federal funds, organizations seeking federal financial assistance from NSF must ensure that research results are not improperly influenced by the financial relationships of their employee investigators. NSF has required disclosure of all sources of current and pending research support for decades. This disclosure includes:

- All resources made available to an individual in support of and/or related to all of his/her research efforts, regardless of whether or not they have monetary value.

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- Current and pending support also includes in-kind contributions (such as office/laboratory space, equipment, supplies, employees, students).
- In-kind contributions not intended for use on the project/proposal being proposed also must be reported.

NSF provided additional clarifications of our existing policy to proposing organizations in June 2020 regarding disclosure of current and pending research support, as stated in the GAO draft report. The agency also clarified its biographical sketch coverage to ensure that all appointments (professional, academic or institutional) must be reported, regardless of whether remuneration is received, and whether full-time, part-time or honorary. NSF considers it extremely important to be as clear as possible with proposing organizations regarding how the agency assesses the disclosed information. As the GAO draft report also states, NSF specifies its requirements for organizations to develop, maintain and implement a conflict of interest policy.

The purpose of proposal disclosures of biographical information, including appointments, is to assess how well qualified the individual investigator or team is to conduct the proposed activities. The purposes of proposal disclosures on current and pending research support are to determine the capacity of the investigator to conduct the proposed research, and evaluate whether there is overlap or duplication of the proposed research.

It is NSF's strongly held opinion that the agency's FCOI policy cannot be folded into its disclosure policies because the FCOI reporting and corresponding FCOI determinations are the responsibility of the investigators' organizations. These organizations have faculty handbooks which set the policies, rules, and procedures for their employees. Investigator employees have an obligation to follow these rules.

As noted in the GAO draft report, all 11 of the universities examined had both conflicts of interest and non-financial conflicts of interest policies. NSF is not in a position to substitute its judgment for that of an individual's employer. However, NSF is in the position to make a judgment on an investigator's capacity and potential for duplication based on its required disclosure. This approach parallels the government-wide conflicts of interest approach, as set forth by the Office of Government Ethics. Employees who work for NSF owe a duty to the United States government and as a result must follow the rules of their employer, including conflicts of interest. (See Standards of Ethical Conduct for Employees of the Executive Branch, 5 CFR Part 2535.) NSF requires financial disclosure report forms from employees who have grant and contract responsibilities and reviews these forms for conflicts of interest and outside positions (non-financial conflicts).

The NSF FCOI policy and the NSF proposal disclosure policies do not use the term "non-financial interest." Based on our decades of experience with our FCOI policy, **we do not concur with the draft report's reference to multiple professional appointments as necessarily resulting in non-financial conflicts of interest for the following reasons:**

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**Appendix VII: Comments from the National
Science Foundation**

1. The mere holding of a professional appointment at an organization other than one's own organization is not per se a conflict of interest unless the investigator's organization has defined it as such.
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Finally, requiring disclosure of non-financial conflict of interest in both the NSF's FCOI process and in its proposal disclosure process is an administrative burden. NSF would be asking organizations to report the same information in two different ways: the research organization's report to NSF on unmanageable conflicts and NSF proposal submission system.

Again, we appreciated the opportunity to comment on the draft report recommendation. NSF would be pleased to provide any further information.

Sincerely,



Sethuraman Panchanathan
Director

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Text of Appendix VII: Comments from the National Science Foundation

Page 1

November 24, 2020

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Science, Technology Assessment, and Analytics

U.S. Government Accountability Office 441 G Street, NW

Washington, D.C. 20548

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Sincerely,

Sethuraman Panchanathan Director

Appendix VIII: GAO Contacts and Staff Acknowledgments

GAO Contact

Candice N. Wright, (202) 512-6888 or wrightc@gao.gov.

Staff Acknowledgments

In addition to the contact named above, Farahnaaz Khakoo-Mausel (Assistant Director), Caitlin Dardenne (Analyst-in-Charge), Jenny Chanley, Nacole King, Matthew Levie, Anika McMillon, Amy Pereira, and Ben Shouse made key contributions to this report. Drew Lindsey and Thomas Lombardi also contributed to this report.

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