



OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Request for Information on the American Research Environment

AGENCY: Office of Science and Technology Policy (OSTP).

ACTION: Notice of Request for Information (RFI) on the American Research Environment

SUMMARY: On behalf of the National Science and Technology Council's (NSTC's) Joint Committee on the Research Environment (JCORE), the OSTP requests input on actions that Federal agencies can take, working in partnership with private industry, academic institutions, and non-profit/philanthropic organizations, to maximize the quality and effectiveness of the American research environment. Specific emphasis is placed on ensuring that the research environment is welcoming to all individuals and enables them to work safely, efficiently, ethically, and with mutual respect, consistent with the values of free inquiry, competition, openness, and fairness.

DATES: Interested persons are invited to submit comments on or before 11:59 p.m. ET on December 23, 2019.

ADDRESSES: Comments submitted in response to this notice may be submitted online to: the NSTC Executive Director, Chloe Kontos, JCORE@ostp.eop.gov. Email submissions should be machine-readable [pdf, word] and not copy-protected. Submissions should include "RFI Response: JCORE" in the subject line of the message.

Instructions: Response to this RFI is voluntary. Each individual or institution is requested to submit only one response. Submission must not exceed 10 pages in 12 point or larger font, with a page number provided on each page. Responses should include the name of the person(s) or organization(s) filing the comment. Comments containing references, studies, research, and other

empirical data that are not widely published should include copies or electronic links of the referenced materials.

It is suggested that no business proprietary information, copyrighted information, or personally identifiable information be submitted in response to this RFI.

In accordance with FAR 15.202(3), responses to this notice are not offers and cannot be accepted by the Federal Government to form a binding contract. Additionally, those submitting responses are solely responsible for all expenses associated with response preparation.

FOR FURTHER INFORMATION CONTACT: For additional information, please direct your questions to the NSTC Executive Director, Chloe Kontos, JCORE@ostp.eop.gov

SUPPLEMENTARY INFORMATION: NSTC established JCORE in May 2019. JCORE is working to address key areas that impact the U.S. research enterprise; enabling a culture supportive of the values and ethical norms critical to world-leading science and technology. This includes the need to improve safety and inclusivity, integrity, and security of research settings while balancing accountability and productivity.

Specifically, JCORE is working to:

- **Ensure rigor and integrity in research:** This subcommittee is identifying cross-agency principles, priorities, and actions to enhance research integrity, rigor, reproducibility, and replicability. This includes exploring how Federal government agencies and stakeholder groups, including research institutions, publishers, researchers, industry, non-profit and philanthropic organizations, and others, can work collaboratively to support activities that facilitate research rigor and integrity through efforts to address transparency, incentives, communication, training and other areas.

- **Coordinate administrative requirements for Federally-funded research:** This subcommittee is identifying and assessing opportunities to coordinate agency policies and requirements related to Federal grant processes and conflicts of interest disclosure. Additionally, this subcommittee is also exploring how persistent digital identifiers and researcher profile databases can be used to reduce administrative work and track agency investments.
- **Strengthen the security of America’s S&T research enterprise:** This subcommittee is working to enhance risk assessment and management, coordinate outreach and engagement across the research enterprise, strengthen disclosure requirements and policies, enhance oversight and vigilance, and work with organizations that perform research to develop best practices that can be applied across all sectors. The subcommittee is taking a risk-based approach to strengthening the security of our research enterprise balanced with maintaining appropriate levels of openness that underpins American global leadership in science and technology.
- **Foster safe, inclusive, and equitable research environments:** This subcommittee is convening the multi-sector research community to identify challenges and opportunities, share best practices, utilize case studies, and share lessons learned in order to promote practices and cultures that build safe, inclusive, and equitable research environments.

Research Rigor and Integrity

The National Academies and others have in recent reports on rigor, reproducibility and replicability¹ and integrity,² identified a number of areas that Federal agencies and non-Federal

¹ National Academy of Sciences. Reproducibility and Replicability in Science (2019)

² National Academy of Sciences. Fostering Integrity in Research (2017)

stakeholders should consider to foster rigorous research. The subcommittee on Rigor and Integrity in Research is seeking perspectives on actions Federal agencies can take, working in partnership with the broader research community, to strengthen the rigor and integrity of research while recognizing the need for discipline-specific flexibilities.

1. What actions can Federal agencies take to facilitate the reproducibility, replicability, and quality of research? What incentives currently exist to (1) conduct and report research so that it can be reproduced, replicated, or generalized more readily, and (2) reproduce and replicate or otherwise confirm or generalize publicly reported research findings?
2. How can Federal agencies best work with the academic community, professional societies, and the private sector to enhance research quality, reproducibility, and replicability? What are current impediments and how can institutions, other stakeholders, and Federal agencies collaboratively address them?
3. How do we ensure that researchers, including students, are aware of the ethical principles of integrity that are fundamental to research?
4. What incentives can Federal agencies provide to encourage reporting of null or negative research findings? How can agencies best work with publishers to facilitate reporting of null or negative results and refutations, constraints on reporting experimental methods, failure to fully report caveats and limitations of published research, and other issues that compromise reproducibility and replicability?
5. How can the U.S. government best align its efforts to foster research rigor, reproducibility, and replicability with those of international partners?

Coordinating Administrative Requirements for Research

Numerous reports and recommendations, including from the National Academies³, the National Science Board⁴, and the Government Accountability Office⁵, have highlighted concerns about increasing administrative work for Federally-funded researchers. Congress has directed Federal agencies to reduce the administrative burden associated with Federal awards through the 21st Century Cures Act (Pub. L. 114-25) and the American Innovation and Competitiveness Act (Pub. L. 114-329). Despite these efforts, preliminary reports from the Federal Demonstration Partnership indicate that the time university faculty spend administering Federal awards, rather than on research, has continued to increase.

Taking into consideration the current Federal landscape with respect to individual Federal agency financial conflict of interest (FCOI) regulations and policies, including definitions, disclosure or reporting requirements and thresholds, training requirements, and timing for disclosure, please comment on the following:

1. What actions can the Federal government take to reduce administrative work associated with FCOI requirements for researchers, institutions, and Federal agency staff?
2. How can Federal agencies best achieve the appropriate balance between reporting and administrative requirements and the potential risk of unreported or managed financial conflicts that could compromise the research?
3. From the perspective of institutions, describe the impact of the 2011 revisions to the Public Health Services FCOI regulations. What were the implications with respect to the

³ National Academies report *Optimizing the Nation's Investment in Academic Research* (2016)

⁴ National Science Board report *Reducing Investigators' Administrative Workload for Federally Funded Research* (2014)

⁵ Government Accountability Office report *Federal Research Grants: Opportunities Remain for Agencies to Streamline Administrative Requirements* (2016)

balance between burden and risk? Did the revisions result in fewer significant unresolved or unreported financial conflicts?

4. Please comment on whether and how a streamlined, harmonized, Federal-wide policy for FCOI would provide benefits with respect to reducing administrative work and whether there would be anticipated challenges.
5. How can agencies best reduce workload associated with submitting and reviewing applications for Federal research funding? What information is necessary to assess the merit of the proposed research, and what information can be delayed until after the merit determination is made (“just-in-time”)?

Research Security

The open and internationally collaborative nature of the U.S. science and technology research enterprise underpins America’s innovation, science and technology leadership, economic competitiveness, and national security. However, over the past several years, some nations have exhibited increasingly sophisticated efforts to exploit, influence, our research activities and environments. Some of these recent efforts have come through foreign government-sponsored talent recruitment programs. Breaches of research ethics, both within talent programs and more generally, include the failure to disclose required information such as foreign funding, unapproved parallel foreign laboratories (so-called shadow labs), affiliations and appointments, and conflicting financial interests. Other inappropriate behaviors include conducting undisclosed research for foreign governments or companies on United States agency time or with United States agency funding, diversion of intellectual property or other legal rights, and breaches of contract and confidentiality in or surreptitious gaming of the peer-review process.

In light of these concerns, we seek public input on the following questions:

1. How can the U.S. Government work with organizations that perform research to manage and mitigate the risk of misappropriation of taxpayer or other funds through unethical behaviors in the research enterprise? Please consider:
 - a. Disclosure requirements and policies. Who within the research enterprise should disclose financial as well as nonfinancial support and affiliations (e.g., faculty, senior researchers, postdoctoral researchers, students, visitors)? What information should be disclosed, and to whom? What period of time should the disclosure cover? How should the disclosures be validated especially since they are made voluntarily? What are appropriate consequences for nondisclosure?
 - b. Disclosure of sources of support for participants in the research enterprise. What additional sources of support should be disclosed, and should they include current or pending participation in foreign government-sponsored talent recruitment programs?
 - c. What information can the government provide to organizations that perform research to help them assess risks to research security and integrity?
2. How can the U.S. government best partner across the research enterprise to enhance research security? Please consider:
 - a. Appropriate roles and responsibilities for government agencies, institutions, and individuals;
 - b. Discovery of and communication of information regarding activities that threaten the security and integrity of the research enterprise; and
 - c. Establishment and operation of research security programs at organizations that perform research.

3. What other practices should organizations that perform research adopt and follow to help protect the security and integrity of the research enterprise? Please consider:
 - a. Organization measures to protect emerging and potentially critical early-stage research and technology.
 - b. How can Federal agencies and research institutions measure and balance the benefits and risks associated with international research cooperation?

Safe and Inclusive Research Environments

JCORE is focused on identifying actions that will ensure research environments in America are free from harassment of any kind, and from any conditions that encourage or tolerate harassment or other forms of behavior that are inconsistent with the ethical norms of research. The aim is to foster an American research enterprise, which epitomizes our values and those of research itself, namely, where researchers feel welcome and are encouraged to join, wish to remain, and subsequently thrive. To achieve this, leaders must create a research environment that welcomes all individuals, values their ideas, treats individuals as equals, and promotes bold thinking, rigorous and civil debate, and collegiality. With this focus in mind, we seek the public's input on the following questions:

1. What policies and practices are most beneficial in fostering a culture of safe and inclusive research environments? Where applicable, please provide information on:
 - a. Organizational leadership actions that create a culture of inclusivity;
 - b. Best practices for preventing harassment from beginning;
 - c. Best practices for prohibiting retaliation against those who report harassment;

- d. Best practices for re-integrating those who have been accused of harassment but found to be innocent;
 - e. Whether your organization has a common code of ethics applicable to researchers, and whether that code is highlighted and actively promoted in training, research practice, etc;
 - f. How institution-based procedures for reporting cases of sexual harassment and non-sexual harassment (or toxic climate) differ, and if there are aspects of one set of policies that would be beneficial for broader inclusion.
2. What barriers does your organization face in the recruitment and retention of diverse researchers? Where applicable, please provide information on:
- a. The setting to which it applies (i.e., academic, industry, etc.);
 - b. Whether your organization has best practices or challenges specific to recruitment and retention of global talent;
 - c. Solutions your organization has used to successfully increase recruitment or retention of diverse and/or international researchers;
 - d. Best practices to promote bold thinking and enable collegiality in debate.
3. Are Federal agency policies on harassment complimentary or conflicting with regard to state or organizational policies? Where applicable, please provide information on:
- a. What aspects are in conflict, along with the associated agency policy;
 - b. What aspects are most protective and make policy reasonable to implement;

- c. What processes have effectively streamlined the administrative workload associated with implementation, compliance, or reporting.
4. What metrics can the Federal government use to assess progress in promoting safer and more inclusive research environments? Where applicable, please provide information on:
 - a. What methods your organization uses to assess workplace climate;
 - b. What systems within your organization were developed to enforce and/or report back to agencies;
 - c. What metrics does your organization uses to assess effectiveness of safe and inclusive practices;
 - d. What actions does your organization take communicate climate survey results, both within your organization and to external stakeholders?

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