

Submitted to: ScientificIntegrityRFI@ostp.eop.gov

Re: SI-FTAC RFI

July 28, 2021

Dear Dr. Ryan Donohue:

Thank you for the opportunity to submit comments on behalf of the Federation of Associations in Behavioral and Brain Sciences. FABBS represents 28 scientific societies and nearly 70 university departments whose scientific members and faculty share a commitment to advancing knowledge in the sciences of mind, brain, and behavior. Our members applaud this Administration's commitment to science and share the goal of developing sound, evidence-based policies guided by rigorous research and data. We also appreciate the inclusive process that OSTP has taken to solicit feedback from the community.

In addition to addressing workforce training issues and potential roadblocks to integrity, such as political interference, it is also important to recognize external forces working against the public confidence in science. It is essential to consider what behavioral and cognitive sciences have taught us about the consumers of information and the ways in which education and personal biases influence individuals' abilities to decipher fact from fiction.

1. The effectiveness of Federal scientific integrity policies in promoting trust in Federal science:

The 2010 OSTP Memo on scientific integrity policies includes the goal to 'strengthen the actual and perceived credibility of government'. Behavioral and cognitive sciences are central to understanding the experience of processing information and determining what – and who – to believe.

Central to achieving trust in Federal science is building a science literate population. Science education must instill an understanding of the scientific process and also provide learners with the tools to reflect on and assess their own judgement and biases, as well as the credibility of scientific sources. Our nation's policymakers speak frequently about the importance of STEM education. However, it is essential to include the behavioral and cognitive sciences in our definition of STEM. Building trust in science requires empowering individuals to be reliable and discriminating consumers of information; to

know how and when to check their own biases and processes. And yet, the behavioral and cognitive sciences are not consistently included in the definition of 'Science' when used in Federal policy about STEM. FABBS member society, the American Psychological Association, has a useful report on the topic.¹ Many of the recommendations from 2010 still hold true today. A few examples:

- Increase resources for the teaching of psychology as a laboratory science at the high school, community college, and college level.
- Include psychological science courses among those required for general STEM education at high school, undergraduate, and post-graduate levels. These courses may emphasize the critical role of psychology within interdisciplinary science, such as behavioral neuroscience, behavioral genetics, or behavioral economics.
- Increase the number of psychological scientists in STEM agencies (e.g., Department of Energy, Department of Transportation) on boards, review panels, and among senior staff, as well as on scientific advisory boards and commissions (such as the President's Council of Advisors on Science and Technology, the Office of Science and Technology Policy, and the upper rungs of management at federal research agencies, such as NSF, NIH, and NASA).

Behavioral research tells us that the messenger can be as important as the message. Research in *Policy Insights from the Behavioral and Brain Sciences* suggests that "children enter kindergarten well-prepared to make judgments about the credibility of their teacher... Thus, an understanding of how young children make trust-based decisions is timely and useful."² This is a humbling finding and underscores just how strong external factors are when trying to avoid bias, even for young children.

2. Effective policies and practices Federal agencies could adopt to improve the communication of scientific and technological information:

When considering how to communicate scientific and technological information most effectively, it is essential to start with insights from the behavioral and cognitive sciences that examine this very question.

¹ "Report of the American Psychological Association 2009 Presidential Task Force On the Future of Psychology as a STEM Discipline" <https://www.apa.org/pubs/info/reports/stem-discipline>

² "Trusting Your Teacher: Implications for Policy" <https://journals.sagepub.com/doi/full/10.1177/2372732219862574#>

The Administration can facilitate this across the Federal Government by reinstating the [Social and Behavioral Sciences Subcommittee](#) of the National Science and Technology Council (NSTC). This subcommittee facilitated collaboration and sharing of information among federal agencies and departments and identified cross-cutting national R&D priorities benefiting from behavioral and social science and recommended action on possible policies.

In addition, OSTP should reconstitute the [Social and Behavioral Sciences Team](#) (SBST) within the White House. Under the Obama administration, the team of applied behavioral scientists considered how people make decisions and act on them to increase effectiveness and efficiency of federal programs. communication, interface, and user experience across federal agencies. By way of example, the 2016 SBST Annual Report highlights responding to climate change, and improving the effectiveness and efficiency of Federal Government operations.

The COVID-19 pandemic has only amplified the importance of the behavioral and social sciences in policy decisions. The National Academies of Sciences, in collaboration with the National Science Foundation, launched the [Societal Experts Action Network \(SEAN\): Facilitating Rapid and Actionable Responses to Social, Behavioral, and Economic-Related COVID-19 Questions](#). This initiative brings researchers together to inform research-based, actionable policy responses. The network has focused on timely questions, such as how best to communicate vaccine efficacy and safety. This integrative approach of science communication would benefit the Administration as a whole as well as the American public.

A report by the American Academy of Arts and Sciences (AAAS)³ includes a call to action with clear opportunities for the Federal Government to support trust in science. Two of the recommendations stand out in relevance to the goal of improving communication about science.

- Connecting research and practice. Federally-funded researchers should work to better connect research and practice through partnerships. Behavioral and cognitive scientists, particularly in areas of education research, have made significant advances and serve as a model for researcher-practitioner partnerships.

³ *The Public Face of Science in America: Priorities for the Future*
<https://www.amacad.org/publication/public-face-science-america-priorities-future>

- Funding. Continued financial support for research in the behavioral and cognitive sciences is particularly critical for understanding impact and exploring how shifts in the communication and engagement landscape influence behavior.

5. Other important aspects of scientific integrity and effective approaches to improving trust in Federal science:

In order to successfully ensure scientific integrity and public trust in federal science, the Administration must prioritize filling key scientific positions within the Federal Government. FABBS members were excited to see the elevation of OSTP Director to a cabinet-level position, but other essential positions remain vacant or inactive.

The Institute of Education Sciences (IES), within the Department of Education, is the premier education research agency of the Federal Government. IES is responsible for informing federal, state, and local education policies and assessing educational progress. It is critical that IES is transparent and clear when communicating priorities to the public, lawmakers, and the scientific community. However, the fifteen-member National Board for Education Sciences (NBES), which oversees IES, has not met since November of 2016. This body is essential for guiding federal research priorities and ensuring the integrity and rigor of research conducted or funded by IES. The Board provides accountability to the American taxpayer and is central to ensuring that IES is able to remain independent and non-partisan, and disseminate the highest quality research to education policymakers around the country. It is imperative that the NBES be comprised of highly qualified candidates with diverse research expertise.

Thank you for the opportunity to respond to this important RFI to improve federal scientific integrity policies. Making progress towards achieving our shared goal, to base federal decisions on rigorous science and enhance public trust in science, requires insights from the behavioral and cognitive sciences. FABBS is eager to serve as a resource in this regard.

Sincerely,



Juliane Baron
Executive Director