NSB-2025-17
February 25, 2026

APPROVED MINUTES
OPEN PLENARY SESSION
495th MEETING
NATIONAL SCIENCE BOARD

National Science Foundation (NSF)
In-person and via Videoconference
July 23, 2025

Key Points

Acting Chair's Opening Remarks

- **Meeting Agenda**
  - Acting Chair Victor McCrary welcomed National Science Board (NSB) members, NSF staff, and guests to the Board's 495th meeting and reviewed the agenda

- **Thank yous**
  - On behalf of the Board, McCrary thanked Brian Stone, who is acting the capacity of the Director, NSF leadership, and agency staff for their dedication to NSF's mission and their work to keep the agency and U.S. science on the leading edge.

- **Staff Transitions**
  - McCrary thanked the numerous NSF staff members who had recently retired or left the Foundation.
  - He thanked the National Science Board Office (NSBO)'s DeMonica Fooks and Michelle McCrackin, both of whom took the deferred resignation program.
  - McCrary also recognized American Institute of Physics Mather intern Zhane Yamin and thanked him for his contributions during his summer internship at the National Science Board Office.

- **NSB Statement**
  - McCrary highlighted the NSB's May 16th statement "Winning the Race for the Future with the National Science Foundation," which addresses what it is needed to make a next generation NSF a reality and reinvigorate the American S&T enterprise to ensure U.S. security and prosperity for the next 75 years.

Panel: The Power of S&T Basic Research: Driving American Innovation

NSB member Ryan Panchadsaram introduced the industry leaders speaking about federal scientific investments and their role in driving innovation. The panelists were:

- A.N. Sreeram, Chief Technology Officer and Senior Vice President of Research & Development, Dow
- Bill Dally, Chief Scientist and Senior Vice President of Research, NVIDIA
- Wen Hsieh, Founding Managing Partner, Matter Venture Partners

In their brief remarks, panelists highlighted the complementary and essential partnership between the federal government and the private sector to produce and use the basic research that spurs innovation.

Sreeram and Dally noted the importance of federally-funded research to their respective companies and to U.S. industrial success and S&T leadership. Sreeram stated that R&D work with the government underpinned Dow's transformations throughout its 128-year history and Dally traced NVIDIA's roots to government-funded university research. Both also stressed that federal S&T investment complements industry R&D investment, funding research that industry will not fund, often because it is unclear whether such research has a path to commercialization. Dally and Hsieh also noted that federal support of university research creates the STEM workforce industry needs.

Dally urged action to ensure continued U.S. S&E leadership at a time of increased global competition. Sreeram observed that today's multinational companies have options in terms of where they carry out their R&D and will go where "there is red carpet" not "red tape." Hsieh observed that technological strength is the foundation of our political and economic strength and that our technological strength is a product of a research ecosystem that includes government-funded research and researchers at universities.

During the Q&A session, panelists and the Board noted the importance of federally-funded basic research for laying the groundwork for the next, next big things in S&E and the need to do more to raise awareness of the academic origins of many technologies. Panelists and the Board also discussed the challenge of recruiting and retaining domestic STEM talent and how industry and government might make common cause in this effort. Panelists also expressed concern that university-based research is under-resourced in some key areas such as artificial intelligence compute and data access.

NSB Honorary Awards: Award Presentation & Panel Discussion

NSB presented the 2025 Science and Society Award to Rocco Mennella and Jane Hemelt, two life-long STEM educators, and the 2025 Vannevar Bush award to fusion engineering pioneer and founding president of the Kavli Foundation Robert Conn. Mannella, Hemelt, and Conn then engaged in a discussion led by NSB Honorary Awards Chair Dorota Grejner-Brzezinska that covered their respective journeys in STEM, what surprised them along the way, and what they plan to do next.

NSB 2026 Meeting Dates

The Board voted unanimously to approve its 2026 meeting dates. Staff will circulate those dates to all members.

***Indicators 2026*: Discovery Report, Brief, and Fact Sheet**

Julia Phillips, chair of NSB's Science and Engineering Policy Committee, provided the following updates on the 2026 *Science & Engineering Indicators* cycle:

- On July 23, 2025, the NSB released the first of the 2026 cycle's thematic reports "Discovery: R&D Activity and Publications." The report quantifies how the global and U.S. R&D landscape is changing, including the rapid growth of R&D expenditures in the People's Republic of China since 2000.
- On July 23, 2025, the NSB released "Winning the Race for the Future", a companion piece to the Discovery report, that highlights that U.S. competitiveness and national security hinge on funding bold, curiosity-driven research and growing domestic STEM talent via direct support for the next generation of scientists & engineers.
- In addition, NSB has released a 1-pager on NSF's indispensable and unique contribution to U.S. leadership in Artificial Intelligence and Quantum.
- NSB is in the early stages of developing an index for international and state-by-state comparisons that would permit NSB to look at multiple indicators and normalize and weigh them to create a ranking.

Phillips thanked the National Center for Science and Engineering Statistics (NCSES) for its partnership on *Indicators* and its efforts to unearth new data sources. She also recognized Zhane Yamin's contributions to the 1-pager and Andrew Czeidinski's leadership on the index.

Graduate Research Fellowships Update

NSB Member Joan Ferrini-Mundy highlighted NSB's ongoing interest in the Graduate Research Fellowship (GRF), noting how important investing in domestic STEM students is for U.S. global competitiveness. In 2025, NSF funded 1500 GRFs from a poll of 15,000 applicants. NSB is eager to collaborate with NSF to build partnerships across sectors to fund additional well-qualified students. To that end, NSB has been connecting potential partners to NSF to help shape what a cross-sectoral funding model could look like for future competitions.

Gold Standard Science Update

NSF's Chief Science Officer Simon Malcomber gave an update on the Gold Standard Science (GSS) Executive Order (EO) and NSF's implementation plan, which will be released on August 22. Malcomber shared the EO's nine tenets, observing that NSF is well aligned to implement since existing dear colleague letters, requirements, and solicitations address many of them. McCrary echoed this sentiment, noting that GSS tenets like reproducibility and transparency are expressed in the Merit Review Commission report and have long been central to NSF-supported research. Malcomber clarified that not all NSF-funded science needs to involve all nine tenets and that the implementation plan will be suited to NSF's mission. Implementing a few of the tenets – such as publishing negative results – will require more engagement with the research community, interagency groups, and the publishing community. In closing, Malcomber noted that the GSS implementation plan will be updated annually in September. He invited NSB comments and requested that members share ideas on performance measures.

Merit Review Digest Overview

Committee on Oversight (CO) Chair Wanda Ward presented the Fiscal Year 2022 and 2023 Merit Review Digests to the Board for its review and approval. The digests convey NSB messages about Board priorities related to Merit Review and make strategic data requests. Looking ahead, CO expects to consider

whether new data should be included in future digests in light of the findings and recommendations of the forthcoming Merit Review Report and whether any currently reported data can be retired in an effort to reduce administrative burden.

Motions / Votes

NSB voted unanimously to approve the Board's 2026 meeting schedule.

NSB voted unanimously approve the Merit Review Digest overviews.

Attendance on July 23, 2025

Members Present	Members Present	Members Absent
Victor McCrary, *Acting NSB Chair*	Marvi Matos Rodriguez	Roger Beachy
Sudarsanam Babu	Julia Phillips	
Aaron Dominguez	Sarah O'Donnell	
Joan Ferrini-Mundy	Ryan Panchadsaram	
Yolanda Gil	Scott Stanley	
Juan Gilbert	Keivan Stassun	
Dorota Grejner-Brzezinska	Merlin Theodore	
Melvyn Huff	Wanda Ward	
Jeffrey Isaacson	Bevlee Watford	
Matthew Malkan	Heather Wilson	
Willie May		

There being a quorum, the National Science Board convened in person and via videoconference with NSB Acting Chair Victor McCrary, presiding in Open Plenary Session on July 23, 2025 beginning at 11:01 a.m. and adjourning at 2:48 p.m. EDT.

Approval status of previous meeting minutes

Date of Meeting(s):

- May 2025, Open Plenary Session Approved: _X_ Yes __No

/s/ Elise Lipkowitz
Acting Executive Secretary to the National Science Board