

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

DIVISION ON ENGINEERING AND PHYSICAL SCIENCES
SPACE STUDIES BOARD

**Committee on Building a Foundation for Assessing the Health and Vitality of the Science
Mission Directorate's Research Communities**

Fifth Meeting

Thursday, August 12, 2021

All times Eastern Time Zone

OPEN SESSION

1:59 p.m.	Welcome	Charlie Bolden, Co-chair Wanda Sigur, Co-chair
2:00 p.m.	NASA and Data Collection	Louis Barbier, Chief Scientist Office
3:00 p.m.	Perspectives from Engineering Education	Norman L. Fortenberry, ASEE

CLOSED SESSION

4:00 p.m.	Discussion	Committee
5:00 p.m.	<i>Meeting Adjourns</i>	

Last updated: August 4, 6 p.m.

Next meeting:

August 27

STATEMENT OF TASK

The National Academies of Sciences, Engineering, and Medicine will appoint an ad hoc committee to address the topic of “Building a Foundation for Assessing the Health and Vitality of the Science Mission Directorate’s Research Communities.” This study will define the data that NASA needs to collect to enable each decadal survey to conduct its own analysis of its research community’s health and vitality. This committee will recommend actions to improve the health and vitality of the communities of researchers to aid in the accomplishment of the NASA research objectives.

To accomplish this task, the committee will:

1. Identify the characteristics of a healthy and vital research community.
2. Define implementable measures for assessing the health and vitality of a research community based on the above-identified characteristics, considering demographics, career-stage structure, distribution of “hard money” and “soft money” positions, relative dominance of NASA Centers in performing research in the discipline, fraction of funding for the discipline provided by NASA relative to other funding agencies, and other relevant variables.
3. Based on the above-identified measures, enumerate the types of data that NASA should be collecting to enable future assessments of the health and vitality of the scientific work force and any statutory, regulatory or policy impediments to collecting those data. Recommend practical and actionable approaches that, if implemented, would reduce the identified impediments.
4. Recommend and prioritize best practices for NASA to use to improve the health and vitality of its research communities.

As part of its work, the committee will review and consider the findings of past social science studies of SMD-supported science communities as well as any limitations in available data found by recent Decadal Surveys and any additional information they may have developed for data that NASA was unable to provide. This part of the review will be integrated into the committee’s methods of collecting information specific to NASA science communities. These methods may include commissioned papers, representative community panels, and structured interviews.

ROSTER

CO-CHAIR

Wanda A. Sigur (NAE)

Retired Vice President and General Manager Civil Space Lockheed Martin Corporation

CO-CHAIR

Charles F. Bolden, Jr. (NAE)

Founder & CEO, Emeritus

The Charles F. Bolden Group, LLC

MEMBERS

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Executive Director

American Society for Gravitational

and Space Research (ASGSR)

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Luke Blossom Professor in the School of Humanities and Sciences, and
Professor of Physics and of Particle Physics and Astrophysics Stanford
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Christopher M. Keane

Director of Geoscience Profession and Higher Education American Geosciences
Institute

Sheri Klug Boonstra

Principal Investigator of NASA's Lucy Student Pipeline and Competency
Enabler (L'SPACE) Program

Rosaly M.C. Lopes

Chief Scientist, Planetary Science Directorate Jet Propulsion Laboratory

Cora Bagley Marrett

Professor Emerita, Department of Sociology University of Wisconsin-Madison

Mark Moldwin

Arthur F. Thurnau Professor of Climate and Space Sciences and Engineering
and Applied Physics University of Michigan

Kenneth Sembach

Director

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Susan White

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