

Comments on Outreach from the Mathematical and Physical Sciences Advisory Committee

As the home for research in areas of compelling interest to the public, from the early history of the universe as recorded in the night sky to the chemistry and physics of global climate change to the molecular origins of life, the Mathematical and Physical Sciences Directorate at the National Science Foundation needs to take the lead in communicating that exciting science to the public. The goal is two-fold: first, to make the process of science more transparent and less mysterious, and second, to show the connections between pure science and mathematics and real-world applications. The benefits will be educating the public better to make political decisions in areas of science and technology, as well as raising the profile of science careers for Americans entering the workforce.

The range of new efforts toward public communication of science must extend from traditional placements of exciting discoveries in the print and broadcast media to the creation of compelling web sites that tell the story of science. This is needed to reduce the gap between what scientists do and the public perception and appreciation of science. The NSF is already supporting a wide variety of television shows that are designed to interest young viewers in math and science, such as "Fetch with Ruff Ruffman", "Cyberchase," and "Zoom." We applaud these efforts and encourage the agency to explore additional ideas, including:

- (1) Bring in several scientists who are excellent communicators to a series of NSF-hosted day-long programs aimed at the public in cities around the country.
- (2) Create a science quiz show to stimulate interest in the science that is taught in our schools.
- (3) Join forces with entertainers and comedy shows to make a humorous traveling exhibit or broadcast program that shows how simple scientific concepts and methods are not only broadly accessible but useful to citizens. In each case, connections to space, health, and energy could be used to attract interest, but the focus should be on the core areas of science and technology at the heart of NSF.