

WHY SUPPORT RESEARCH AT THE NATIONAL SCIENCE FOUNDATION?

FOR STARTERS, TO PROMOTE DIVERSITY IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH (STEM).

The National Science Foundation (NSF) funds research that advances the frontiers of human knowledge, resulting in breakthroughs by leading researchers in areas ranging from computers to physics to economics. More specifically, through \$28.1 million in grants to Boston University, the NSF makes possible advances and discoveries like these:

■ WATCHING STEM BLOSSOM IN THE SUMMER. How can the science, technology, engineering, and mathematics (STEM) fields attract more underserved and underrepresented students? With more opportunity and better teaching. BU aims to provide both through two NSF-sponsored programs. Research Experiences for Undergraduates invites underrepresented minority undergraduates and community college students to join in cutting-edge research using the state-of-the-art facilities at our Photonics Center. The second, Research Experiences for Teachers, does the same for area teachers and community college faculty. Together, these programs could attract an influx of people from diverse backgrounds with a passion for STEM fields, leading, in turn, to a more diverse STEM workforce in the future.

■ HELPING COMPUTERS MAKE DIFFICULT (FOR THEM) CHOICES. Flying an airplane is more important than streaming a movie through its entertainment system. That's obvious to you, but not so much to the plane's computer. That could be changing. Professor Richard West, with support from the NSF, is developing a new safe, secure, and predictable operating system that distributes multiple tasks on a chip in a way that allows the system to better prioritize, while also protecting it from outside attacks. Improvements in efficiency, security, and timing could prove significant in automobiles, robotics, and health care, as well as aviation.

■ MÁS COMUNICACIÓN—UNDERSTANDING AMERICA'S HISPANOPHONES. More than 40 million Americans speak Spanish. How is the language evolving in the US and what does it mean for our society? Linguistics professor Daniel Erker is seeking answers in an NSF-funded study of who uses Spanish, how they use it, and why they use the varieties they do. There may even be a unique brand of American Spanish emerging from the many variations spoken around the world. In a nation as broad and diverse as ours, communication is critical to understanding each other and understanding how our communities work together—whether you call them neighborhoods or *barrios*.

We hope you'll give strong consideration to supporting research funding for the NSF. If you have any questions or would like to discuss further the role that NSF research plays in our daily lives, please visit [bu.edu/federal](https://www.bu.edu/federal).



THE PHOTONICS CENTER AT **BOSTON UNIVERSITY** HOSTS PROGRAMS EACH SUMMER DESIGNED TO PROMOTE DIVERSITY IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH.