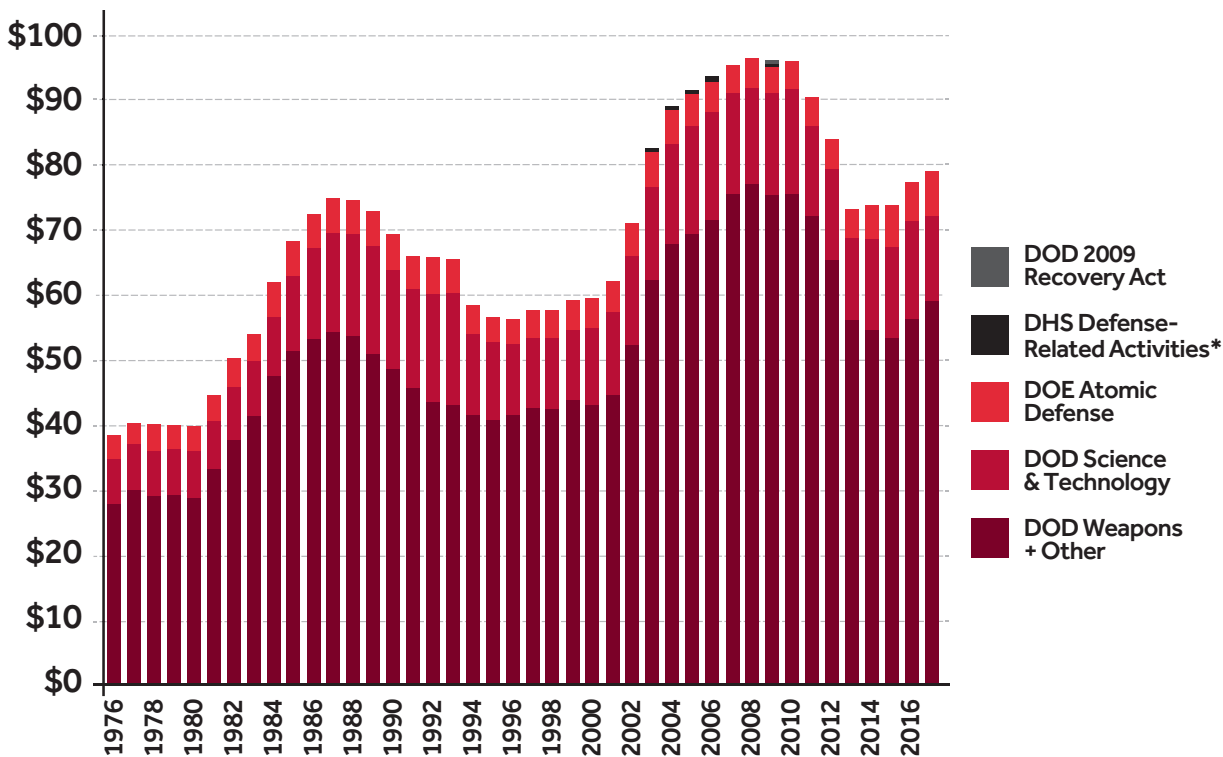


DEPARTMENT OF DEFENSE RESEARCH

STONY BROOK UNIVERSITY urges Congress to provide at least \$2.37 billion for Department of Defense (DOD) 6.1 basic research in FY19.

Department of Defense (DOD)-funded basic research has contributed significantly to our nation's economic and national security. DOD relies on technological innovation as a force multiplier, and cutting-edge advances have helped make our military the best-equipped and most effective in the world. Addressing complex military challenges requires innovation and technologies and the development of these technologies depends on sustained investments in scientific and engineering basic research performed at U.S. universities.

TRENDS IN DEFENSE R&D IN BILLIONS OF CONSTANT FY 2016 DOLLARS



*Included in Defense R&D FY 2002-FY 2006. Source: AAAS, 2017
Source: AAAS Research & Development series and agency budget documents. FY 2017 figures are latest estimates and the President's request. DID S&T figures are not comparable for all years because of changing definitions. © 2016 AAAS

6.1 basic research programs help train the next generation of U.S. scientists and engineers. Research grants and contracts support cutting-edge research and graduate research assistantships. Undergraduate scholarships & graduate fellowships funded by the National Defense Science and Engineering Graduate (NDSEG) Fellowships program help attract and retain top U.S. citizens for study in fields vital to addressing security-related challenges.

SBU recommends Congress provide the following FY19 funding levels:

- **\$74.3 million** for the National Defense Education Program (NDEP)
- **\$60.7 million** for NDEP's Science, Mathematics, and Research for Transformation (SMART) Program
- **\$3.2 billion** for the Defense Advanced Research Projects Agency (DARPA). Historically, DARPA has invested in high-risk, high-reward research that has led to extraordinary technological advances, like the Internet and global positioning system (GPS).

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Highlights from Stony Brook University's DOD Funded Research:

- Researching algorithm diversity to prevent cyberattacks—in cyberspace, as in many other domains, diversity provides resilience and a robust defense against attacks
- Developing a new super-resolution light microscopy system to enhance the study of cells, tissues and organ systems in order to better address infectious diseases and chemical agents that our American troops may encounter
- Researching the behavior of clays under the effect of various environmental impacts, which is crucial for the security of our national infrastructures such as earth dams and levees, coastal bluffs, and landslides

Basic and applied research funded by the DOD underpins the innovative health treatments and technologies that help save lives on the battlefield and speed recovery from injuries.



Stony Brook
University