



Basic Research & Technology Transfer

Overview

Basic research conducted in federal laboratories and research institutions provide the underlying foundation for the innovation economy in the United States. Federal basic research investment has led to groundbreaking technologies such as creation of the Internet and development of lifesaving medical treatments, strengthened national security, and advanced energy technologies. Furthermore, discoveries born out of basic research can lead to more impactful applied research, new commercial products and new American companies. Investment in basic research has paid significant dividends for American innovation, job creation, and economic growth. Yet recent trends have demonstrated not only a decrease in overall R&D funding, but a decrease in the R&D funds allocated towards basic research. Studies by the National Science Foundation show the percentage of basic research activity funded by federal agencies dipped to forty-four percent in 2015, compared to seventy percent throughout the 1960s and '70s. Moreover, overall R&D funding of the federal budget dropped from ten percent in 1968 to below four percent in 2015, standing in stark contrast to countries such as China that have increased R&D investments at an average of twenty percent per year over the last decade. At the very time countries around the world have prioritized funding for basic research, stagnating investment trends in the U.S. pose a challenge to our innovation leadership position.

In addition to investment, we can make more efficient use of today's basic research dollars by improving the transition of technology from government labs to commercial activity. Commercialization programs such as the Small Business Administration's Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, as well as the National Science Foundation's Innovation Corps (I-Corps), help to bridge the commercialization divide for small businesses with the potential for commercialization. SBIR and STTR funding have contributed to major technological breakthroughs developed by venture-backed companies, including advancements in identity theft, regenerative wound healing therapies, and biometric sensor technology. I-Corps, which provides entrepreneurial training to scientists and engineers preparing to take federally-funded projects into commercialization, has helped accelerate advanced technologies such as facial recognition tools to battle human trafficking.

Position

NVCA supports increased investment in federal basic research programs, as well as greater efficiencies in the processes of commercializing new technologies. NVCA supports a return to our historical leadership position of federally funding basic research activity by ending sequestration's caps on basic research investment and committing to a sustained annual growth in funding of at least four percent. A renewed federal commitment will fuel an important process where new technological breakthroughs pave the way for venture-backed startups to grow into successful companies and advance American economic competitiveness.

NVCA supports efforts to improve the translation of federally-funded research into commercialized technology and new companies. NVCA has long been a supporter of the Small Business Innovation Research (SBIR) and Small Business Tech Transfer (STTR) programs, two commercialization programs that are vital tools in ensuring basic research dollars have an impact. We were pleased to see these critical programs reauthorized through 2022. Legislative solutions such as *The Transfer Act* would dedicate funding for proof of concept technologies that become the backbone of future innovative startups. Recently enacted into law, *The American Innovation Competitiveness Act* delivers an improved commitment to basic research funding and technology commercialization. In particular, the law's support and funding for the I-Corps program promotes entrepreneurship by providing education and mentorship for federally-funded research teams throughout diverse regional institutions.