



Small Business Technology Council of the
National Small Business Association
1156 15th Street NW, Suite 1100, Washington, DC 20005

2016 SBIR/STTR Reauthorization, June 2016 Strengthening a critical American high tech innovation and jobs engine

Please support the 2017 National Defense Authorization Act (NDAA), S. 2943, and the inclusion of the SBIR Reauthorization Act, S. 2812. This will make the SBIR program permanent, removing uncertainty from the innovation ecosystem, and increase the percentage invested into SBIR innovations, creating new American technology-based industry with high quality jobs. It is important to note that this is not opposed by many of the university research organizations. Small business and the university community have been working together on a variety of legislative proposals. Recently we worked together with the university community to come up with a version of the SBIR reauthorization that the universities would not oppose. The Chairman and Ranking Member of the Small Business and Entrepreneurship Committee plan to introduce a substitute version to S.2812 that includes the language small business and the universities agreed to. We urge you to support the SBEC amendment to the NDAA.

Congress has recognized the remarkable effectiveness of the Federal SBIR/STTR program in building America's high tech economy. The SBIR program is the most successful government commercialization program in the world. With only **3.4%** of Federal external research funding, the highly competitive small business-driven SBIR program and the aligned university-partnered STTR program contribute far more than their share of America's innovations, patents and quality jobs.

The number of SBIR Awards has declined by 30% since 2010 and

The number of SBIR firms at DOD has declined by over 50% since 2010

- **Innovations:** Consistently 22-25% of America's top innovations come from SBIR companies.
- **Patents:** ~5500 per year, more than all American colleges/universities put together.
- **Quality Jobs:** Success stories across America from major agencies and states. Many large tech firms had their origins with SBIR projects, others licensed out their technologies or were acquired by larger businesses seeking their technology and products, and many smaller employers thrive selling products and services developed in the SBIR program.
- **Competitive:** Merit selection: 1 in 8 Phase I proposals is selected; only 1 in 20 reaches Ph. II.
- **2015 Air Force SBIR study:**¹ The newest SBIR study, for 2000-2013, analyzing 96% of \$4 billion in Air Force Phase IIs for an average of seven years. Conclusions:
 - SBIR achieves its objective of developing new technology to support the defense mission.
 - 58% of awards led to new sales exceeding \$1 million, with 13% exceeding \$10 million.
 - Average new jobs wage was \$67,700/year.
 - \$4 billion invested (13% of the federal SBIR total) boosted U.S. GDP by at least \$25 billion.
 - Every Air Force SBIR dollar added \$1 to military sales, \$2.70 to civilian sales, and 50 cents of follow on investment, in addition to the broader multiplier effect upon the U.S. economy.
 - 10% of firms were acquired for their SBIR technology; another 7% licensed the technology or spun it off into a new startup.

The SBIR program asks our nation's smallest businesses, **employing 38% of private sector scientists and engineers**, to convert American science into useful innovations. The resulting new products and services advance agency missions, meet market and societal needs, and create new sustainable high quality, high paying jobs while raising living standards and lowering the cost of living. Multiple studies have documented the high performance of this SBIR portion of Federal R&D. Seventeen (17) National Academy of Sciences' studies have all concluded saying SBIR meets its Congressional goals. As a result, both Senate and House Small Business Committees have released current 2016 bills calling for lengthy or permanent reauthorization and strengthening the program, including increasing the proportion of Federal external R&D

¹ <https://www.sbir.gov/sites/default/files/USAF%20SBIR-STTR%20Economic%20Impact%20Study%20FY2015.pdf>

invested in this highly productive program.

SBIR fills a key gap in America's innovation economy, the often-long and risky path from fundamental science to products. America's universities are superb at developing fundamental basic science and research, using some 35% of Federal external R&D. VCs and major companies also tend to not tackle early stage innovations, seeking product opportunities with most of the technology risk removed. This leaves an innovation gap, after basic science and before a marketable product.

As a result, America's fundamental scientific advances often lie fallow, not advancing to innovation, products and American jobs. Other countries have taken advantage of our imbalance to reduce America's technology lead, driven by more directed STEM-driven economic development mandates, lower cost labor, and building on American science. For example the European Union has now increased to over 16.9% the R&D proportion provided to small businesses, about five times America's overall 3% of Federal R&D expenditures, the majority from SBIR. The Federal SBIR program seeks to release our innovation pipeline imbalance, unleashing the kind of entrepreneurially-driven innovation that our small businesses can provide. SBIR combines agency-identified mission priorities with small business entrepreneurially-driven innovation, led by risk-taking entrepreneurs and private sector research leaders (often from universities or other large research organizations), and advancing our nation's basic science into novel applications and products.

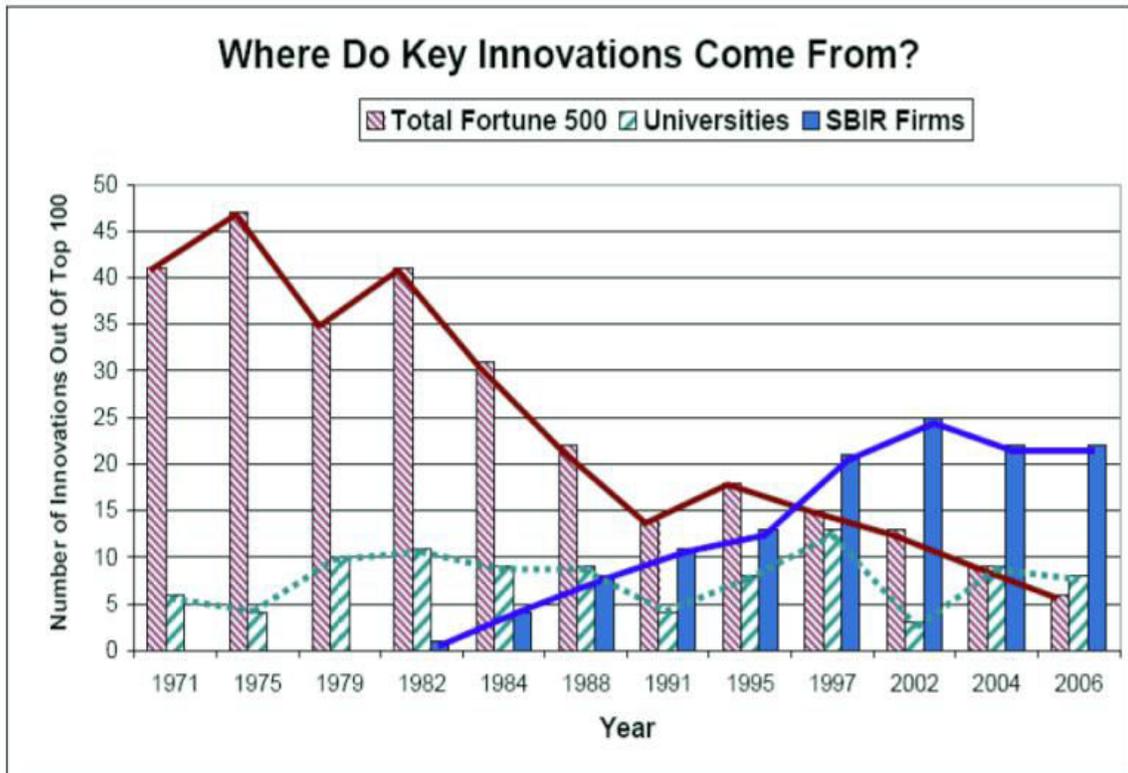
- SBIR/STTR program: 3.4% of Federal external research funding (vs ~35% to colleges/universities).
- SBIR awards lead to ~ 5500 patents/year (vs ~5145 to all colleges and universities).
- 60% of SBIR projects involve at least one founder with a university background, and formal small business-university SBIR collaborations are growing, now at 35-50% depending upon agency. All STTR projects involve collaborations between small businesses and research institutions.
- The GAO found SBIR research at least as high quality as university research
- SBIR efficiently converts science into innovation and jobs needed for our high tech economy.

The U.S. needs more small business-driven innovation to help build a stronger America that can continue to out-compete the world. Small businesses by their entrepreneurial private sector nature do this well, creating over two-thirds of the net new jobs in the past 15 years. America needs more SBIR awards to transition more science and technology to innovations, patents, products and high quality jobs.

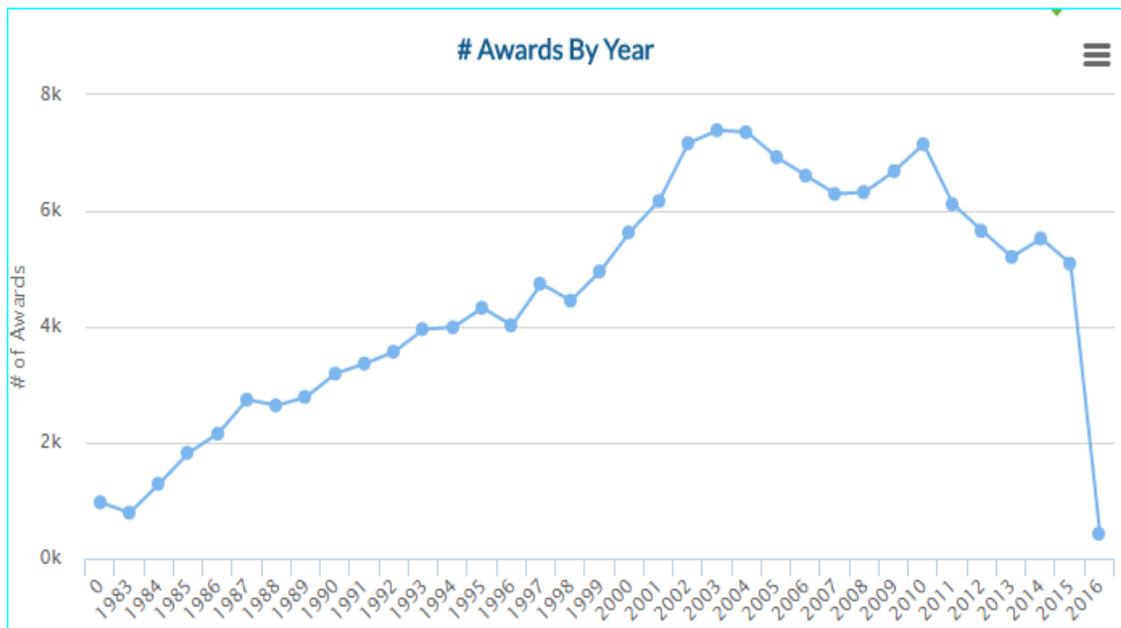
Instead of delaying, the SBTC suggests Congressional action is justified now on this jobs-boosting measure. Permanent reauthorization would help avoid the economic damage done by 14 temporary reauthorizations during 2008-2011, when business and SBIR agency uncertainty chilled long term planning and investment. The high performance of the SBIR program justifies permanently reauthorizing the program, further strengthening it, and boosting the relative share of Federal R&D invested in SBIR.

Some universities have opposed the proposed increase in the SBIR program, asking for more study and arguing that this shift to the relatively small SBIR program will lead to lowered university research funding. We suggest this is short-sighted, as the purpose of Federal R&D is not more funding but instead the development of new innovations meeting America's needs and strengthening our international competitive position. An increase in SBIR funding will lead to more university (and other) science converted to technology and products, benefiting everyone. Shifting more Federal external R&D to the SBIR program will build on America's strong fundamental science to create more innovations and more high quality job creation. This will strengthen the economy while boosting returns on Federal R&D, helping to justify long term increases in Federal R&D investment, both basic and applied, also for the benefit of all Americans. It should be noted that many University R&D organizations such as AAU, FASEB and APLU do not oppose making SBIR permanent and substantially increasing the SBIR percentage allocation.

For more information contact Alec@SBTC.org.



In part derived from: Fred Block and Matthew R. Keller, "Where Do Innovations Come From? Transformations in the U.S. National Innovation System, 1970-2006", THE INFORMATION TECHNOLOGY & INNOVATION FOUNDATION, July 2008,



Number of SBIR Awards down 30% since 2003

7392 awards in 2003 to 5080 in 2015. www.sbir.gov/analytics-dashboard