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IN FOCUS

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Small Business Research Programs: Overview and Issues for Reauthorization in the 119th Congress

Small businesses are often viewed as being critical to the economy—creating jobs, improving productivity, and advancing innovation. Given the perceived importance of small businesses, Congress has a long-standing interest in federal programs that provide assistance and support to them, including the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, which fund research and development (R&D) performed by U.S. small businesses. The statutory authority for the SBIR/STTR programs is set to expire on September 30, 2025. This In Focus provides an overview of the SBIR/STTR programs and describes selected issues Congress may consider as it debates reauthorization of the programs.

Overview of SBIR/STTR Programs

Congress created the SBIR program in 1982 (P.L. 97-219), stating that, despite the role of small businesses as "the principal source of significant innovations in the Nation," the vast majority of federally funded R&D is performed by large businesses, universities, and federal laboratories. Per P.L. 97-219, the SBIR program seeks to advance four objectives: (1) stimulate innovation, (2) increase the use of small businesses in addressing federal R&D needs, (3) foster the participation of socially and economically disadvantaged individuals in innovation and entrepreneurship, and (4) increase private sector commercialization of technologies derived from federally funded R&D.

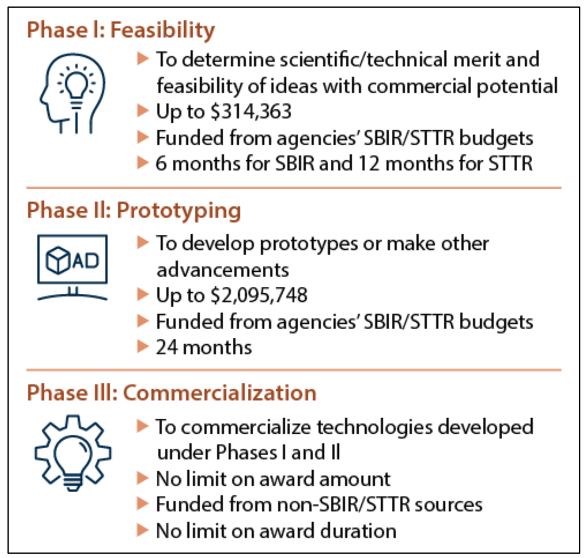
Federal agencies with extramural R&D budgets of $100 million or more are required to allocate a portion of that funding (currently 3.2%) to conduct an agency-run SBIR program. Currently, 11 federal agencies operate SBIR programs: the Departments of Agriculture (USDA), Commerce (DOC), Defense (DOD), Education (ED), Energy (DOE), Health and Human Services (HHS), Homeland Security (DHS), and Transportation (DOT); Environmental Protection Agency (EPA); National Aeronautics and Space Administration (NASA); and National Science Foundation (NSF).

A complementary program, the STTR program, was created in 1992 (P.L. 102-564) to facilitate the commercialization of university and federal R&D through support for cooperative R&D between small businesses and research institutions. Federal agencies with extramural R&D budgets of $1 billion or more are required to allocate a portion of that funding (currently 0.45%) to conduct an agency-run STTR program. Five federal agencies currently operate STTR programs: DOD, DOE, HHS, NASA, and NSF.

Each federal agency is required to administer its own SBIR/STTR programs in accordance with the statutory provisions at 15 U.S.C. §638 and the policy directive issued by the U.S. Small Business Administration (SBA). SBA is also required to provide coordination across federal agency SBIR/STTR programs, monitor implementation, and report annually to Congress.

Both the SBIR and STTR programs have three phases (see **Figure 1**).

Figure 1. Phases of the SBIR/STTR Programs



Source: Adapted from U.S. Government Accountability Office, *Small Business Research Programs: Information Regarding Subaward Use and Data Quality*, GAO-24-106399, November 28, 2023, p. 7, https://www.gao.gov/assets/d24106399.pdf.

According to the most recent SBA annual report, in FY2021, federal agencies obligated $3.5 billion in SBIR awards and $528.7 million in STTR awards to small businesses.

Issues for Consideration

Congress has sought to improve the SBIR/STTR programs over the years, and in the context of reauthorization, it may consider a number of issues, including the following.

Mitigation of Foreign Risks

Many Members of Congress are concerned about the security of the U.S. R&D enterprise, including federally funded R&D performed by small businesses. The SBIR and STTR Extension Act of 2022 (P.L. 117-183) required federal agencies to develop and implement a "due diligence program" to assess the potential security risks (e.g., foreign affiliations) of small businesses seeking SBIR and STTR awards. According to a 2024 study by the U.S. Government Accountability Office (GAO), agencies sought to refine their due diligence programs in the first year of implementation, including through acquiring tools to aid in vetting applicants, training staff, and leveraging other resources or offices within the agency (e.g., counterintelligence offices) to support due diligence reviews. GAO found, however, that DHS, EPA, and NASA did not have documented processes for requesting analytical support and sharing information. GAO noted that documenting such review processes helps to ensure that procedures remain consistent and that officials have the information needed to identify and mitigate risk in award decisions. Congress may consider modifying the requirements of and resources dedicated to agency due diligence programs.

Program Eligibility

In general, participation in the SBIR/STTR programs is limited to for-profit companies that are owned and controlled by U.S. citizens or permanent residents and have less than 500 employees. For SBIR, however, Congress authorized federal agencies to elect to award a certain percentage of their SBIR funding (either 25% or 15%, depending on the agency) to small businesses that are majority owned by multiple venture capital operating companies, hedge funds, or private equity firms. According to a 2024 GAO study, four agencies have elected to use the authority since FY2013. Potential benefits of allowing such small businesses to participate in the SBIR programs include increasing the size of the applicant pool and the potential for commercialization as the firms have already attracted private sector funds. Potential downsides include increased risk of foreign threats and misalignment with the goals of some agencies' SBIR programs, which may target less mature companies and more nascent technologies that tend to attract less interest from private funders. Congress may maintain the current authority (i.e., allow agencies to determine whether small businesses that are majority owned by multiple venture capital operating companies, hedge funds, or private equity firms are eligible for their SBIR program), eliminate the authority, or modify it (e.g., alter the amount of SBIR funds that can be awarded to such firms or require all agencies to include such firms).

In addition, some Members of Congress and other observers have expressed concern over small businesses that receive multiple SBIR and STTR awards. They suggest that such small businesses rely on SBIR/STTR programs as a continuing revenue source and that they have a poor track record of commercialization. According to the National Academies of Sciences, Engineering, and Medicine, studies examining multiple award recipients "present conflicting evidence" regarding commercialization outcomes and may not assess the role of these firms in addressing the specific procurement needs of agencies.

In 2022, Congress required increased performance standards (i.e., higher transition rates from Phase I to Phase II and from Phase II to commercialization) for small businesses receiving 50 or more awards over a 10-year period (P.L. 117-183). According to GAO, 22 small businesses received 50 or more Phase II awards from FY2011 through FY2020. These small businesses received 10% of the Phase II funding awarded during this period despite representing less than 1% of total awardees. GAO found that agencies varied in the extent to which they issued multiple awards to small businesses and that such variation was likely due to differences in agency priorities. GAO also found that "multiple awardees performed below or similarly to other awardees" in achieving the programs' goals. GAO determined that six businesses did not meet the new performance standards and that the standards, in general, "may have minimal effects" on SBIR program participation and eligibility. Depending on Congress's future goals for the programs, it may consider repealing or modifying the increased performance standards or implementing caps on the number of awards or amount of funding a small business can receive under the programs, among other options.

Commercialization-Related Activities

Congress has enacted various pilot programs and provisions to advance the commercialization of technologies resulting from SBIR/STTR awards. For example, federal agencies are authorized to provide technical and business assistance funds to SBIR/STTR awardees to support, among other activities, intellectual property protections, market research, and the development of regulatory plans. In another example, in 2018, Congress required agencies to implement a commercialization assistance pilot program that allows them to use up to 5% of their SBIR funds to award eligible small businesses a third or subsequent Phase II award for the continuation of R&D that ensures progress toward commercialization. According to a 2024 GAO report, only DOE has established the required pilot program so far, making seven awards between 2019 and 2024. GAO found that NASA and HHS applied for exceptions from implementing the pilot program, which SBA granted. GAO also found that most agencies were unable to implement the pilot program because they do not make second Phase II awards, and therefore no small businesses were eligible for a pilot program award. Congress may consider modifying the suite of commercialization-related authorities provided to federal agencies.

Program Funding

Federal agencies are required to expend a statutorily defined minimum percentage of their extramural R&D budgets on the SBIR and STTR programs annually (currently 3.2% for SBIR and 0.45% for STTR). Among the factors affecting agencies' compliance with the mandatory minimum expenditure levels are challenges in calculating the amount to be set aside and the enactment of appropriations after the start of the fiscal year. In addition to considering changes to the required set-aside, Congress may consider statutory changes that alter or clarify how agencies determine the amount to be set aside each year for SBIR and STTR, and whether those amounts must be spent in the same fiscal year; obligated, in whole or in part, for expenditure over multiple fiscal years; or expended without restriction to any given period.

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