



The Small Business Innovation Research (SBIR) Program: Reauthorization Efforts

Wendy H. Schacht
Specialist in Science and Technology Policy

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Summary

The Small Business Innovation Development Act of 1982, P.L. 97-219, created Small Business Innovation Research (SBIR) programs within the major federal research and development (R&D) agencies. This effort was intended to increase participation of small innovative companies in federally funded R&D. Government agencies with extramural R&D budgets of \$100 million or more are required to set aside a portion of these funds to support research and development in small firms through the SBIR program.

Reauthorized several times over the years, the SBIR program was scheduled to terminate on September 30, 2008. To date, the program has not been specifically reauthorized, but instead temporarily extended by several bills including P.L. 110-235 which extended the activity through March 20, 2009. P.L. 111-10 provided an additional extension through July 31, 2009; P.L. 111-43 through September 30, 2009; and P.L. 111-66 through October 31, 2009. P.L. 111-89 once again extended the program through April 30, 2010; P.L. 111-214 through September 30, 2010; and P.L. 111-251 through January 31, 2011. H.R. 366, a bill which would provide an additional extension through May 31, 2011, passed the House on January 25, 2011, and the Senate on January 26, 2011.

During the 111th Congress, H.R. 2965, a bill which would have reauthorized and made changes to the SBIR program, passed the House, after which the Senate substituted the language of S. 1233 (amended) and approved its version of H.R. 2965. Also in the last days of the 111th Congress, the Senate passed S. 4053, a bill to “reauthorize and improve” the SBIR effort. However, the House did not take up this legislation.

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The Current Program

Congress has demonstrated an ongoing interest in the small business sector. Addressing issues related to economic growth and competitiveness, special consideration has been given to small, high-tech firms for several reasons, including some data that indicate such companies tend to be highly innovative, play a significant role in technological advancement, and contribute to the high standard of living in the United States. Such was the rationale behind legislation creating the Small Business Innovation Research (SBIR) program, an effort to increase that portion of the federal research and development (R&D) budget provided to small enterprises for work associated with the mission responsibilities of government departments and agencies. Believing that small companies were underrepresented in government R&D activities, P.L. 97-219, as amended, established agency SBIR programs to guarantee this sector a portion of the government's research and development budget to compensate for what was viewed as a federal contracting preference for large corporations.

Current law requires that every federal department with an extramural R&D budget of \$100 million or more establish and operate an SBIR program.¹ A set percentage of that agency's extramural research and development budget²—originally at 1.25%, now at 2.5%—is to be used to support mission-related work in small companies. To be eligible to compete in the program, a company must be independently owned and operated; not dominant in the field of research proposed; for profit; the employer of 500 or fewer people; the primary employer of the principal investigator; and at least 51% owned by one or more U.S. citizens or lawfully admitted permanent resident aliens. A rule change, effective January 3, 2005, permits subsidiaries of SBIR-eligible companies to participate as long as the parent company meets all SBIR requirements.

Agency SBIR efforts involve a three-phase activity. In the first phase, awards up to \$100,000 (for six months) are provided to evaluate a concept's scientific or technical merit and feasibility. The project must be of interest to and coincide with the mission of the supporting organization. Projects that demonstrate potential after the initial endeavor may compete for Phase II awards of up to \$750,000 (lasting one to two years) to perform the principal R&D. Phase III funding, directed at the commercialization of the product or process, is expected to be generated in the private sector. Federal dollars, but not SBIR funds, may be used if the government perceives that the final technology or technique will meet public needs. P.L. 102-564 directed agencies to weigh commercial potential as an additional factor in evaluating SBIR proposals.

As of FY2008, 11 departments have SBIR programs, including the Departments of Agriculture, Commerce, Defense (DOD), Education, Energy, Health and Human Services, Homeland Security, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration (NASA); and the National Science Foundation (NSF). Each agency's SBIR activity reflects that organization's management style. Individual departments select R&D interests, administer program operations, and control financial support. Funding may be disbursed in the form of contracts, grants, or cooperative agreements. Separate agency solicitations are issued at established times.

¹ For a more detailed discussion of the current SBIR program see CRS Report 96-402, *Small Business Innovation Research (SBIR) Program*, by Wendy H. Schacht.

² It should be noted that P.L. 97-219 excluded appropriated funds for defense programs in the Department of Energy from that agency's extramural R&D calculations.

The Small Business Administration (SBA) created broad policy and guidelines under which individual departments operate SBIR programs. The agency monitors and reports to Congress on the conduct of the separate departmental activities.

A pilot effort to encourage commercialization of university and federal laboratory R&D by small companies was created by P.L. 102-564 and reauthorized several times through FY2009. The Small Business Technology Transfer program (STTR) provides funding for research proposals that are developed and executed cooperatively between a small firm and a scientist in a research organization and fall under the mission requirements of the federal funding agency. Up to \$100,000 in Phase I financing is available for one year; Phase II awards of up to \$750,000 may be made for two years. Currently funded by a set-aside of 0.3% of the extramural R&D budget of departments that spend over \$1 billion per year on this effort, the Departments of Energy, Defense, and Health and Human Services, NASA, and NSF participate in the STTR program.

Reauthorization Legislation

The SBIR program has been extended several times and was scheduled to terminate on September 30, 2008. Although no specific legislation reauthorized the program, the Small Business Administration determined that P.L. 110-235 temporarily extended the SBIR activity through March 20, 2009.³ Subsequently, P.L. 111-10 provided an additional extension of the program through July 31, 2009; P.L. 111-43 extended it through September 30, 2009; and P.L. 111-66 extended the effort through October 31, 2009. P.L. 111-89 once again extended the SBIR program through April 30, 2010, after which P.L. 111-214 extended the effort through September 30, 2010. P.L. 111-251 extends the program through January 31, 2011. H.R. 366, a bill which would provide an additional extension through May 31, 2011, passed the House on January 25, 2011 and the Senate on January 26, 2011.

In the 111th Congress, H.R. 2965, the Enhancing Small Business Research and Innovation Act of 2009, passed the House, amended, on July 8, 2009. The Senate struck out all language after the Enacting Clause and substituted the language of S. 1233 (the SBIR/STTR Reauthorization Act of 2009), amended, and passed H.R. 2965 in lieu on July 13, 2009. The following table provides a summary of selected provisions of these bills by issue.

³ Letter from Peter K. Schalestock, Acting General Counsel, U.S. Small Business Administration, September 11, 2008, http://grants.nih.gov/grants/funding/sbir_small_business_admin_letter.pdf.

Table I. IIIth Congress: Comparison of H.R. 2965 (as passed by House and Senate) by Selected Issue

Issue	H.R. 2965 Passed by House	H.R. 2965 Passed by Senate
Reauthorization	The SBIR and STTR programs are extended through September 30, 2011.	The bill extends the SBIR and STTR programs through September 30, 2017.
Award Levels	Phase I SBIR and STTR awards are increased from \$100,000 to \$250,000 and Phase II SBIR and STTR awards are increased from \$750,000 to \$2,000,000. Increases the maximum allowable Phase I award to \$300,000 and Phase II award to \$2,250,000 for veteran-owned and controlled small businesses.	Phase I SBIR and STTR awards are increased from \$100,000 to \$150,000 and Phase II SBIR and STTR awards are increased from \$750,000 to \$1,000,000.
SBIR Set-Aside Amounts	No similar provision.	The set-aside is increased from 2.5% in 2009 and 2010 by 0.1% per year up to 3.5% in 2020 and beyond with the following exception: the increases in funding generated by the set-aside in excess of 2.5% at the Department of Defense and the Department of Energy are not to be used for new Phase I or II awards but for “activities that further the technology readiness levels of technologies being developed under Phase II awards.”
STTR Set-Aside Amounts	No similar provision.	The set-aside is increased from 0.3% to 0.4% for 2011 and 2012; to 0.5% for 2013 and 2014; and to 0.6% from 2015 on.
Sequential Awards	Small business that receives one Phase II award is eligible to receive additional Phase II awards. A Phase II award can be made only after a Phase I award has been completed or the small business has met the requirements set forth in 15 U.S.C. 638 subsection (e)(4)(A) re technical merit and commercial potential. Allows veteran-owned and controlled small businesses to bypass Phase I and go directly to Phase II.	A recipient of a Phase I grant from one federal agency would be permitted to apply for a Phase II award from another agency to pursue the original work. A small business would be allowed to switch between the SBIR and STTR programs.
Grant Award Priority	Priority in granting awards is to be given to small companies owned by veterans and those in areas that have lost a major source of employment	Phase III awards are to go to companies that developed the technologies in Phase I and Phase II. Grants are to be made on a competitive and merit basis.

Issue	H.R. 2965 Passed by House	H.R. 2965 Passed by Senate
Majority Venture Capital Owned Small Businesses	<p>For the SBIR and STTR programs, the bill would allow majority venture capital ownership in a small business if not more than 50% of the firm is owned by one venture capital company and the employees of the venture capital company are not a majority of the small firm's board of directors. If the venture capital company is controlled by a business with more than 500 employees, the small business is eligible only if not more than two large venture capital companies have ownership interest in the small firm and these large venture capital companies do not collectively own more than 20% of the small business.</p>	<p>The bill permits NIH to award not more than 18% of SBIR funds to majority venture capital-owned small businesses so long as "no single venture capital company owns more than 49 percent of the small business concern" upon a written determination provided to the Administrator of the SBA and the Senate Committee on Small Business and Entrepreneurship and the House Committee on Small Business. Allows other participating agencies to award not more than 8% of SBIR funds to majority venture capital-owned small businesses so long as "no single venture capital company owns more than 49 percent of the small business concern" upon a written determination provided to the Administrator of the SBA and the Senate Committee on Small Business and Entrepreneurship and the House Committee on Small Business.</p>
Outreach	<p>The bill authorizes the SBA to support outreach and other efforts to increase participation in the SBIR program, with particular emphasis on small firms in rural areas. \$10 million in funding is authorized for this activity in FY2010 and FY2011.</p> <p>Programs receiving outreach grants are to direct their activities to underperforming states and regions, women, service-disabled veterans, Native American-owned businesses, or minority-owned organizations, as well as to areas of high unemployment.</p> <p>A program of matching grants to minority institutions is created to encourage minority participation. In FY2010 and FY2011, \$4 million per year is authorized to be appropriated for this effort.</p>	<p>The bill authorizes and makes changes to the Federal and State Technology Partnership (FAST) program which provides grants to organizations to provide outreach designed to encourage increased participation in the SBIR program. Rural outreach and outreach to states with low program participation are emphasized.</p> <p>Creates an SBIR-STEM Workforce Development Grant Pilot Program. Provides for the authorization of \$1 million per year from 2010 through 2015 for this activity.</p>

Issue	H.R. 2965 Passed by House	H.R. 2965 Passed by Senate
Commercialization Activities	<p>Each SBIR agency is to create a commercialization program to facilitate “progress” to Phase III. The program may include partnerships, mentoring with prime contractors, transition assistance, and multiple Phase II awards, among other things. Funding for \$27.5 million is authorized for FY2010 and after for the SBA to transfer to the agencies for commercialization programs.</p> <p>The bill requires agencies to establish procedures to encourage SBIR awardees to develop partnerships with other organizations, including prime contractors, business incubators, venture capital companies, and large business, to assist them in moving to Phase III.</p> <p>Mandates commercialization efforts to assist small companies affected by the termination of the shuttle program.</p>	<p>The bill provides for commercialization pilot programs for Phase II SBIR and STTR technologies in DOD and the civilian agencies. Encourages SBIR and STTR awards to small businesses that work with federal laboratories or are involved in cooperative research and development agreements (CRADAs).</p>
Areas of Concentration	<p>Agencies are directed to focus on research in energy, rare diseases, transportation, nanotechnology, medical technology, water delivery systems, and renewable energy.</p>	<p>Agencies are encouraged to make SBIR and STTR awards in nanotechnology and R&D related to cures for disease.</p> <p>Research priorities are to include projects relating to security, energy, transportation, and improving the security and quality of the water supply.</p>
Oversight	<p>An interagency SBIR/STTR Policy Committee is to be established by the Director of the Office of Science and Technology Policy.</p> <p>Funding is authorized for administrative, oversight, and contract processing costs. \$27.5 million is authorized for FY2010 and for FY2011 for the SBA to transfer to the agencies for these activities.</p> <p>Oversight is required of small businesses that received multiple Phase I awards and no Phase II awards.</p> <p>Agency databases are to be created to support program evaluation and the Comptroller General is to audit agency calculation of extramural research.</p>	<p>The bill provides for the creation and maintenance of data bases collecting relevant information on the SBIR and STTR programs for use by both the government and the public sector.</p> <p>The Comptroller General is to audit agency calculation of extramural research.</p>

At the end of December 2011, the Senate passed S. 4053, the SBIR/STTR Reauthorization Act of 2010. In brief, this bill would have reauthorized the SBIR and STTR programs through September 30, 2018, increased Phase I awards to \$150,000 and Phase II awards to \$1 million;

increased the set-aside for the SBIR program to 3.5% over 10 years; and increased the set-aside for the STTR program to 0.6% over six years. The House did not take up the bill by the close of the 111th Congress.

Issues for Consideration

Perhaps the most contentious issue in the reauthorization is that of the level of small business ownership by venture capital companies and eligibility under the SBIR and STTR programs. The original legislation establishing the SBIR program required that small firms must be at least 51% owned by an individual or individuals. Venture capital investment was permitted, and encouraged, but limited to 49% ownership interest. The intent of providing federal grant money, as explained in the House Science and Technology Committee report (H.Rept. 97-349, Part IV) to accompany the House bill that became the basis for the legislation, was

to provide seed capital to small, high technology firms at the early, high risk stage of initial concept development. Funds provided ... would compensate for what has been described as a lack of investment capital for small businesses.... Funds provided under the SBIR program would be used ... to cover early development costs for small firms, providing early risk capital which is necessary for the procurement of follow-up support from the private sector.

However, the issue of venture capital ownership has come to the attention of Congress as the nature of venture capital investment and R&D performance has changed since the legislation was initially enacted in 1982. Recently, questions were raised as to whether small companies with majority ownership by venture capital companies met the eligibility requirements of the SBIR program. According to an April 2006 report by the Government Accountability Office (GAO-06-565),

in 2001, an SBA administrative law judge issued a decision clarifying that the terms “individuals” and “citizens” in the SBIR criteria meant only natural persons, not entities such as corporations.... Then in 2003, the same SBA administrative law judge issued a decision stating that venture capital firms could not be considered individuals for the purpose of satisfying the ownership criteria for the program.

In the 111th Congress, H.R. 2965, as passed by both the House and Senate, and S. 4053, as passed by the Senate, would have altered the eligibility requirements regarding majority venture capital ownership of small firms in the SBIR and STTR program, although in different ways. Proponents of this change maintain that, particularly in the biotechnology sector, the most innovative companies are not able to use these programs because they do not meet these ownership criteria. They argue that because of the high cost of biotechnology R&D, large venture capital investments are often a necessity for many of these firms. By excluding such companies from the SBIR and STTR programs, advocates maintain that the pool of applicants for participation in the effort, specifically at the National Institutes of Health, is decreasing with detrimental effects to the health and strength of the U.S. economy.

Opponents of altering the eligibility requirements argue that the program is designed to provide financial assistance where venture capital is not available. These experts assert that the program’s objective is to bring new concepts to the point where private sector investment is feasible. However, they claim that the changes in the bill associated with venture capital majority ownership take federal support away from actual small businesses and place government funds into the hands of investors while favoring the biotechnology and venture capital sectors.

The Senate-passed version of H.R. 2965, as well as S. 4053 as passed by the Senate, would have increased the set-aside amounts for both the SBIR and STTR programs while both versions would have increased the amount of individual SBIR and STTR Phase I and Phase II awards that could be made. Raising the upward limit of the permitted awards appears to reflect a recognition that the performance of research and development has become increasingly expensive over the 25 years since passage of the original legislation. However, this may result in fewer awards available to small firms through these two programs, particularly under H.R. 2965 as passed by the House, which did not increase the amount of the set-aside.

The bills provided more congressional direction to the participating agencies as to topics for inclusion in program solicitations and to the characteristics to be considered during the selection process. Outreach to specific states, rural areas, and identified groups was mandated. Increased commercialization activities would have been fostered by provisions in both versions of H.R. 2965 and S. 4053 while additional mechanisms and/or funding for oversight were included.

If the 112th Congress chooses to consider reauthorization of the SBIR and STTR programs, and any possible changes in program operation, these and other issues may continue to be explored.

Author Contact Information

Wendy H. Schacht
Specialist in Science and Technology Policy
wschacht@crs.loc.gov, 7-7066