Small Business Technology Coalition

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Honorable Nydia Velazquez
Chairwoman
House Small Business Committee
U.S. House of Representatives
Washington, DC 20510

Honorable Steve Chabot
Ranking Republican Member
House Small Business Committee
U.S. House of Representatives
Washington, DC 20510

7 April 2008

Dear Chairwoman Velazquez and Representative Chabot,

The Small Business Technology Council appreciates having this opportunity to comment on legislation that the House Small Business Committee is developing to reauthorize the Small Business Innovation Research (SBIR) Program. SBTC is the nation's largest association of small, technology-based companies in diverse fields. We also serve as the Technology Council of the National Small Business Association, the nation's oldest nonprofit advocacy organization for small business, reaching over 150,000 small businesses in the U.S.

SBIR has proven itself to be one of the most successful federal programs for technological innovation in U.S. history, delivering more than 55,000 patents and hundreds of valuable innovations in agriculture, defense, energy, health sciences, homeland security, space, transportation, and other fields. As the recent evaluation of the SBIR Program by the National Academy of Sciences noted, SBIR "is sound in concept and effective in practice." Reauthorization of the Program will serve the small business community, technological innovation, and the public interest.

We applaud the Committee for moving reauthorization forward. The draft Committee legislation contains a number of significant and valuable improvements to SBIR.

- It would provide further Congressional guidance to agencies on the commercialization of SBIR technologies. This is the single most important improvement that could be made in SBIR to assure that the nation receives the full benefits of technologies developed through the Program.

- It would refocus and strengthen the Federal and State Technology (FAST) outreach program. FAST and the Rural Outreach (RO) Programs are crucial in assuring that underserved populations across the country understand the SBIR Program and compete for SBIR awards on a level playing field.

- It would limit the participation of nonperforming companies in the Program. Companies that consistently fail, over a period of years and many Phase I awards, to advance a technology into Phase II, should ultimately lose their eligibility for SBIR awards.

- And it would improve the metrics and oversight of the SBIR Program, steps that the NAS study recommended. Perhaps most notably, the bill's focus on SBIR Advisory Committees within each agency is a potentially important improvement in the Program.

SBTC supports these provisions.

We do, however, have some serious concerns with the legislation, especially with respect to award sizes, award funding, participation in the Program, and the duration of the reauthorization.

I. Award sizes

SBTC agrees with the National Academy of Sciences study and the Committee that increases in the maximum sizes of SBIR Phase I and Phase III awards are overdue. As the Committee is aware, these awards have not been adjusted for inflation or other cost factors in more than fifteen years.

The new caps that the Committee proposes, $200,000 for Phase I and $1.5 million for Phase II, seem high, however. They are higher than inflation and higher than the NAS study recommended. SBTC is also concerned that the draft bill and summary gives the agencies wide discretion to exceed even these higher caps without justifying such over-the-limit awards to SBA.

In the past, when agencies frequently exceeded the statutory limit on award sizes, there has been a dramatic reduction in the number of awards made. As the table below shows, when the National Institutes of Health made a pattern of exceeding these limits, its number of SBIR awards declined significantly – Phase I awards by about one-third, and Phase II awards by about 17%. This decline has occurred during a period of rapid increase in the overall NIH budget, followed by a leveling out.

NIH Phase I and Phase II SBIR Awards, by Year[1]

Year	Phase I awards			Phase II Awards	
Year	# awards	Avg award		# awards	Avg award
2003	1043	$146,555		327	$839,603
2004	1032	$160,676		302	$922,891
2005	806	$172,589		312	$1,021,065
2006	725			355	$1,112,374
2007	696			279	

Both the NAS and SBTC, in earlier statements to Congress, have noted that significantly increasing the caps -- without increasing the allocation of federal R&D funds to SBIR -- would dramatically shrink the number of awards, and therefore the number of participants in the Program.

When the award caps were last raised in 1992, the SBIR share of extramural R&D dollars at participating federal agencies was raised by an *equivalent amount* to avoid shrinking the number of companies in the Program.

Thus far, the draft House Small Business Committee legislation does not address this problem. The SBIR portion of extramural federal R&D at participating agencies is left at 2½%.

[1] [1] Sources: number of awards, National Institutes of Health SBIR Office; dollar award size information is from the NIH website (http://grants.nih.gov/grants/Funding/award_data.htm)

SBTC has analyzed the future impact of such a squeeze on the SBIR Program. We conservatively estimate that, absent any change in the overall SBIR allocation of R&D dollars, the proposed increase in award caps would lead to 46% fewer Phase I awards and 48% fewer Phase II awards within one to two years. We say conservatively, because the bill would give agencies considerable discretion to exceed these caps, and thus the number of awards could be reduced still further. Authorizing agencies to grant multiple Phase II awards, within one award cycle, to a single technology or to a single company, which the draft legislation also contemplates, could further reduce the number of companies in the SBIR Program.

Together, these changes could create a snowballing effect, leading to a radical reduction in Phase I awards and the number of companies winning SBIR awards within three to five years.

This cannot be the Committee's intention. For one thing, it runs directly contrary to the expansion of SBIR outreach that draft legislation envisions for the FAST Program.

Phase I awards are the "seed corn" of SBIR, the real genesis of the Program's celebrated success at delivering innovations. Any set of policies that would have the effect, intended or unintended, of dramatically shrinking the number of Phase I awards (and awardees) would cause enormous and perhaps irreparable damage to SBIR's longer term output.

SBTC believes that the solution to this problem is the same now as it was in 1992 – increasing the SBIR share of federal R&D dollars to offset the increases in award sizes. In our previous testimony on SBIR reauthorization, we have recommended that the SBIR share of extramural R&D at participating agencies be gradually increased, by ½ of 1% a year, until the Program stabilizes at 5% of R&D. This is surely not much to ask when small business employs more scientists and engineers than large businesses or universities, while producing far more innovations and patents per employee and per dollar, and yet still receives less than 5% of all federal R&D dollars.

We also believe that multiple Phase II awards should only be made to a single company or technology under the most exceptional circumstances. The same is true of granting waivers from the award caps.

II. Award funding

SBTC is also concerned about the changes in SBIR award funding that the proposed legislation would create. The bill would allow agencies to:

1) Offer Phase II awards before Phase I contract work is completed.

2) Make unlimited Phase II awards simultaneously with Phase I awards.

3) Provide an unlimited number of Phase II awards to a single company for a single technology, and

4) As noted above, exceed the dollar limits on individual SBIR awards at will.

With respect to each of these changes, there may be occasional rare instances where such an action is justified. If so, the action should be approved on a case-by-case by SBA.

However, to make theses changes the *norm* for SBIR would be to fundamentally alter the Program. It would no longer be the Program that has worked so successfully for 25 years, and has recently been so lauded for its "concept" and its "practice" by the National Academy of

Sciences. It would become a Program of far greater Federal support for far fewer companies and technologies.[2]

Perhaps a new Program built along these new lines might become successful. And the Committee may wish to create one. SBTC would be happy to have a dialogue with the Committee about how such a new Program could be set up. There is precedent for this. When it became clear, after the creation of the SBIR Program, that more scope was needed for cooperation between universities and small businesses, the Small Business Technology Transfer (STTR) Program was created. SBTC has been strongly supportive of STTR, even playing a key role in its reauthorization.

But to *substitute* such a new Program for the existing SBIR Program would be a grave mistake, in SBTC's view, just as substituting STTR for SBIR would have been.

III. University, non-profit and venture capital company participation in SBIR

The role of universities, non-profits, and venture capital companies in the SBIR Program is a second major concern that SBTC has with the draft bill.

The legislative history of SBIR makes plain that the impetus for creating the Program was the extraordinary difficulty that small, technology-based companies experienced in obtaining federal R&D contracts. Small companies were obtaining less than 3% of those contract dollars. Universities and large companies, together with federal labs, were securing over 90%. The purpose of creating the small SBIR set-aside was to give the federal government access to the enormous creativity of small R&D companies by having at least a tiny allocation of R&D contracts stay off-limits to large companies and universities. Currently, even with SBIR's 2½%, small businesses receive less than 5% of total R&D expenditures while the universities, large companies and federal labs still receive over 90%.

Universities were encouraged to partner with small companies through the separate Small Business Technology Transfer (STTR) Program. In our testimony to the House Science and Technology Committee, SBTC proposed that this valuable Program be gradually tripled in size.

Large companies have always been free to partner with SBIR companies in the Phase III commercialization of SBIR technologies, and even to own controlling stakes in those Phase III companies.

In Phase I and Phase II, however, SBIR has been, and remains, the preserve of small business. Venture capital firms make a positive contribution to SBIR, are an important source of financing, and have always been eligible to participate in the SBIR program. Since the inception of SBIR, VC's have been free to obtain *non-controlling* interests in Phase I and Phase II SBIR companies (a fact that is sometimes overlooked in this discussion.) Also, VC's that are small by the SBIR statutory definition (having fewer than 500 employees, including subsidiaries and affiliates) are free to own *controlling* stakes in SBIR companies (another fact that is frequently overlooked.)

An independent analysis of the VC presence in the SBIR Program, the 2006 GAO study, found that VC-backed firms are a rising factor in the Program under current law.

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[2] Although it was surely not the intention of the Committee, the draft legislation would appear to allow an agency to allocate its entire SBIR budget to one company or one technology. This problem underscores, for us, the need for further work on the bill.

At NIH, the study found that SBIR awards to companies with VC backing rose from 15% of all awardee companies to 21%, over the 2001-2004 period. At DoD, a similar pattern prevailed. VC-backed awardees rose from 5% to 8% of all awardees over the same period.

With respect to SBIR firms that are majority controlled by multiple venture capital companies, we remain concerned about situations in which *syndicates or consortiums* of VC's that are large by SBA standards could exercise de facto control over SBIR companies. This could occur through joint ownership, control or operation agreements, or through the control of multiple VC's by third parties.

Above all, SBTC believes it is vital to maintain SBIR's focus as an early-stage "seed capital" program. Changes in the Program that would divert its funds from that early stage, where private sector capital is scarce, to later stage R&D, where it is far more plentiful, undermine SBIR's true value to small business and to the nation.

Allowing universities, non-profit organizations, or *large* venture capital firms (including syndicates and consortiums of large VC's) to control SBIR companies would violate the founding principles of the SBIR Program, and reintroduce the original problems that the Program was designed to address. The small business character of the Program would be fundamentally changed.

Today, more scientists and engineers work for small companies than for universities or large companies. And yet, 25 years after the creation of SBIR, the small business share of federal R&D remains just over 4% -- with SBIR accounting for over half of that. There is simply no room in this Program to allow universities and large businesses to annex part of it.

Still, SBTC recognizes the important role that our colleagues in the venture capital world play in small business growth. We stand ready to work with the Committee in devising channels for large VC's and small, technology-based companies to pair up with one another.

IV. DURATION OF THE REAUTHORIZATION.

Past SBIR reauthorizations have averaged about eight years. This allows time for any changes in the Program to work their way through two or three cycles of Phase I and Phase II awards and then be fully evaluated. In 2006, the Senate Small Business and Entrepreneurship Committee approved legislation that would have made the SBIR Program permanent. Last year, the full Senate approved legislation to extend SBIR for two years, with no changes in the Program, so that SBIR's evaluation and changes could be undertaken in a less politically-charged environment, without a Presidential election.

SBTC would prefer a permanent reauthorization, or, absent that, reauthorization for at least eight years.

But a program lapse, even for a short time, would create chaos at the eleven federal agency SBIR Programs, as well as among the hundreds of companies actively working on SBIR-funded projects. It would cost jobs and disrupt families. To avoid all that, the 2007 Senate approach would be acceptable.

However, combining major changes in SBIR with a short, two-year reauthorization -- an approach that the draft bill contemplates -- invites upheaval at the agencies and broad uncertainty in Congress. Two years does not allow time for even one complete cycle of Phase I and Phase II awards to occur. Meaningful evaluations of changes in the Program would be virtually impossible. For companies in the Program, the prospect of three sets of rules within four years would be extremely troubling, and would probably create disincentives to participate. Even the authorizing

Committees in Congress would likely experience “SBIR fatigue” with a whole new set of hearings looming ahead in another year or so.

SBTC strongly urges the Committee to approve a reauthorization of eight or more years, so that the changes embodied in the draft legislation have time to develop and to be properly evaluated, and so that participating agencies and companies can move forward with some degree of certainty.

Thank you for giving us this opportunity to share our views with you. We look forward to working with you. We hope to reach a point where everyone can agree on the provisions of this bill.

Sincerely,

Jere Glover
Executive Director