

June 1989

# SMALL BUSINESS

## Proposed Amendments to the Small Business Innovation Research Program



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Resources, Community, and  
Economic Development Division

B-209790

June 30, 1989

The Honorable Dale Bumpers  
Chairman, Committee on Small Business  
United States Senate

The Honorable John D. Dingell  
Chairman, Committee on Energy and Commerce  
House of Representatives

The Honorable Robert A. Roe  
Chairman, Committee on Science,  
Space, and Technology  
House of Representatives

The Honorable John J. LaFalce  
Chairman, Committee on Small Business  
House of Representatives

The Omnibus Trade and Competitiveness Act of 1988 (P.L. 100-418) requires us to report to the appropriate committees our views on the advisability of amending the Small Business Innovation Research program (SBIR). The four proposed amendments described in the act would (1) gradually increase SBIR's formula from the current 1.25 percent of agency extramural (external) research and development funds to 3 percent, (2) make SBIR permanent with a formal congressional review every 10 years, (3) allocate a share of SBIR funds for administrative purposes, and (4) lower the threshold for federal agency participation in SBIR from \$100 million to \$20 million.

SBIR was established by the Small Business Innovation Development Act of 1982 (P.L. 97-219). The program requires all agencies with yearly extramural research obligations of more than \$100 million to solicit research proposals from small businesses and provide funds for those proposals judged most qualified. The program is funded by setting aside a percentage of these extramural funds, the current figure being 1.25 percent. Since its establishment, SBIR awards to small businesses have totaled over \$1.35 billion through fiscal year 1988. One of the main goals of SBIR, according to officials at the Small Business Administration (the agency charged with monitoring it), is to increase private sector

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commercialization of federally funded research and development.<sup>1</sup> Eleven federal agencies are presently participating in the program.

We obtained the views of federal program managers and other officials at each of the participating agencies. We also discussed the amendments with officials in four additional federal agencies regarding their agencies' potential inclusion in the program. We further discussed the amendments with officials in the Small Business Administration and the private sector.

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## Results in Brief

On the basis of information available at this time and discussions with government and private sector officials knowledgeable about SBIR, we do not advise altering SBIR as proposed by the four amendments. Consideration of an increase in the funding percentage, proposed by the first amendment, should be deferred at least until solid evidence is available regarding the commercialization of SBIR-funded research and development activities. In addition, none of the 11 agencies supported the proposed increase to 3 percent. The second amendment, to make the program permanent, would diminish the oversight authority of congressional committees by eliminating the reauthorization review process; since SBIR does not receive a specific appropriations review, the reauthorization process for SBIR assumes greater importance and should be preserved. The use of program funds for administrative purposes, as proposed by the third amendment, would mix these two sets of funds and create problems of budgetary control and oversight. In this regard, agency efforts to determine and provide adequate administrative support from non-SBIR funds would be preferable to the method proposed by the amendment. The fourth amendment's proposed lowering of the threshold to \$20 million would establish two extremely small programs; these programs would be somewhat difficult to administer efficiently and would have little chance to make a significant contribution to meeting the SBIR goal of commercializing its research and development activities.

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<sup>1</sup>Other program goals are to stimulate technological innovation, use small businesses to meet federal research and development needs, and foster participation by minority and disadvantaged persons in technological innovation.

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## Proposed Increase in the Funding Percentage

Consideration of an increase in the funding percentage should be deferred at least until solid evidence is available showing the commercialization of SBIR-funded research and development activities, one of the main goals of SBIR. We are required by legislation reauthorizing SBIR in 1986 (P.L. 99-443) to report to the Congress on this subject in December 1991. Our report may help to provide a better basis for considering a higher funding percentage. In addition, although many of the agencies' SBIR managers would like to see the program expanded, almost all of them expressed considerable caution about increasing the percentage now. None of them supported an increase to 3 percent, and only two recommended any increase at all in the level of funding at this time.

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## Permanence and Congressional Review for SBIR

The amendment to make the program permanent would diminish the authority of congressional committees in the oversight process. The set-aside funds for SBIR are not now subject to a specific appropriations review; only the agencies' overall extramural research and development funds from which the set-aside is taken receive such a review. Because SBIR does not have a specific appropriations review, the role of the authorization committees assumes greater importance. However, the proposal to establish the program on a permanent basis would also eliminate a reauthorization review process for the program, thus reducing congressional oversight even further. Since a specific appropriations review for SBIR is absent, the 10-year "formal review" period proposed by the amendment may be too long. The current arrangement, by which SBIR is considered for periodic reauthorization once every 5 or 6 years, provides an opportunity for agencies to justify the program's continuation on the basis of its quality.

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## Set-Aside for Program Administration

The allocation of a share of SBIR funds for administrative purposes would mix programmatic and administrative funds, thereby posing problems of budgetary control and oversight. However, this amendment proposing an administrative set-aside may reflect an underlying concern about the adequacy of administrative support for SBIR. Program managers at 6 of the 11 agencies expressed concern about this issue. Moreover, many of them are concerned about the additional strain on their administrative resources if the program grows in size as a result of any increase in the funding percentage. To the extent that administrative problems exist (or emerge) in SBIR programs because of a shortage of resources, agency efforts to determine and provide adequate support from non-SBIR funds would be preferable to the proposed amendment.

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## Lowering of the Threshold for Agency Participation

In general, the lowering of the threshold for agency participation to \$20 million would establish extremely small SBIR programs that would be difficult to administer efficiently and would not contribute significantly to meeting the SBIR goal of commercializing research and development activities. At present, the reduced threshold would establish two small programs in the Departments of the Interior and Justice. Interior would have only about \$621,000 and Justice \$500,000 for making SBIR awards. They would be able to make only a small number of awards and create a very limited pool from which to develop commercial products and services.

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Appendixes I through IV provide a detailed discussion of our views and comments by agency officials on each of the proposed amendments to the law.

We obtained information from the 11 agencies actively involved in SBIR. These agencies included the Departments of Defense, Health and Human Services, Energy, Transportation, Agriculture, Education, and Commerce; the National Aeronautics and Space Administration; the National Science Foundation; the Environmental Protection Agency; and the Nuclear Regulatory Commission.

We sent letters to and received responses from officials associated with these 11 agency SBIR programs. The letters requested their views and additional data regarding the proposed increase in the funding percentage and the administrative set-aside. We met with the SBIR program coordinator and SBIR program managers in the Department of Defense and with 6 of the 10 program managers in the other agencies to obtain further information. These officials emphasized that their responses did not represent official agency policy. However, we believe that their responses are important because they (1) provide the views of those closest to the daily operations and needs of the program, (2) have been developed in most cases in consultation with higher-level officials, and (3) are the best sources of information in view of the general absence of hard data elsewhere for making decisions about the future structure of SBIR.

We further discussed the amendments with officials from the Small Business Administration and private sector experts on SBIR. We analyzed the proposed permanence and congressional review for SBIR and the administrative set-aside with reference to previously developed GAO positions

in these areas. On the basis of information provided by the Small Business Administration, we identified and contacted four agencies (the Departments of the Interior, Justice, and the Treasury, and the Tennessee Valley Authority) that might be added to SBIR if the threshold was lowered to \$20 million. However, we found that only Interior and Justice have extramural research and development budgets greater than \$20 million and, as a result, would be affected by the amendment. We acquired more detailed information from these two agencies to evaluate the impact of the proposed lowering of the threshold. Our review was conducted between February and May 1989.

We obtained informal agency comments on our report. Program managers and other officials at 9 of the 11 agencies generally agreed with our findings and conclusions. However, program managers at the Department of Energy and the National Aeronautics and Space Administration reiterated their concerns about the current and future adequacy of administrative funds for the SBIR program. They strongly supported the third amendment that would enable them to use program funds for administrative purposes. They believed that it would not be improper or difficult to manage the mixing of these funds in part because the administrative set-aside taken from program funds could be "capped" at a very low percentage (with estimates for the amount taken out of program funds ranging from 3 to 5 percent for the National Aeronautics and Space Administration's SBIR and about 1 percent for the Department of Energy's SBIR). They stated that this limited use of program funds for administration would play a major role in ensuring the adequacy of administrative support for their programs. We have identified and discussed these issues in appendix III. On the basis of our concerns about budgetary control and oversight, we continue to believe that agency efforts to ensure adequate administrative support from non-SBIR funds would be preferable to the proposed amendment.

This review was performed under the direction of John M. Ols, Jr., Director, Housing and Community Development Issues, (202) 275-5525. Appendix V lists the other major contributors to this report.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 3 days from

the date of this letter. At that time, we will send copies to the Administrator, Small Business Administration, and the heads of the other agencies participating in the SBIR program. We will make copies available to others upon request.

*for Neal S. Custer*  
J. Dexter Peach  
Assistant Comptroller General





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**Abbreviations**

DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
ED	Department of Education
EPA	Environmental Protection Agency
HHS	Department of Health and Human Services
NASA	National Aeronautics and Space Administration
NRC	Nuclear Regulatory Commission
NSF	National Science Foundation
R&D	research and development
SBA	Small Business Administration
SBIR	Small Business Innovation Research
USDA	U.S. Department of Agriculture

# Proposed Increase in the Funding Percentage

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One proposed SBIR amendment would "increase each agency's share of research and development expenditures devoted to it [SBIR] by 0.25 percent per year, until it is 3 percent of the total extramural research and development funds, and targeting [sic] a portion of the increment at products with commercialization or export potential."

We believe that consideration of an increase in the funding percentage should be deferred at least until solid evidence is available regarding the commercialization of SBIR-funded research and development (R&D) activities. Our views are based on the following:

- Data regarding SBIR's commercialization of its R&D activities need to be developed and analyzed more thoroughly. Our congressionally mandated report, scheduled for release in December 1991, will address commercialization in detail.
- Almost all of the agencies' SBIR managers expressed considerable caution about increasing the percentage at present. None of them supported an increase to 3 percent, and only two recommended any increase in the level of funding at this time.

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## The Need to Wait for More Conclusive Data on Commercialization

One of the principal goals of SBIR, as expressed in its original legislation, is commercialization resulting from its R&D activities. The program itself, which first made awards in 1983, so far has had only 6 years to begin commercializing its products. According to an expert, studies on the time required to develop a concept into a commercial product state that 5 to 9 years is the approximate range of time for this process to occur. Most of the SBIR projects, however, have not yet had even the minimal amount of time to commercialize their R&D activities.

Similarly, the data reflecting commercialization are limited and incomplete. Our January 1989 report on SBIR provided only preliminary information on this subject. Officials at the Small Business Administration (SBA) are compiling and analyzing more detailed information in this area; they told us that more time is needed to complete their work. In general, we believe that additional time and data, including our mandated report in 1991, are needed before any increase in the percentage should be considered.

## Comments by SBIR Managers and Other Agency Officials

We asked SBIR managers to provide their views on the proposal to increase the program set-aside to 3 percent. We also asked them whether a smaller percentage, between the current 1.25 percent and 3 percent, would be more appropriate. The responses of program managers and, in some instances, more senior officials reflect considerable caution about increasing the percentage.

Program managers and other officials at seven agencies—including the Departments of Defense (DOD), Education (ED), Health and Human Services (HHS), and Energy (DOE), the National Science Foundation (NSF), Nuclear Regulatory Commission (NRC), and Environmental Protection Agency (EPA)—do not support any increase at present. A senior official at the Department of Agriculture (USDA) is also opposed to an increase unless it is accompanied by a substantial rise in overall extramural R&D funding. The Department of Transportation's (DOT) program manager stated that he had no basis for supporting or opposing an increase and considered it a policy question requiring the attention of senior management; he noted, however, that DOT is spending more than 1.25 percent of its extramural R&D on SBIR.

Agency officials provided various reasons for remaining at the current level. According to DOD and ED officials, for example, a decision to increase the percentage should be deferred until the issuance of our report in 1991. HHS' program manager expressed concerns about a decline in quality that might result from the funding of any additional projects because the number of unequivocally meritorious SBIR applications is not large enough to absorb such an increase. According to the Division Director, Industrial Science and Technological Innovation, NSF, a "3-percent set-aside . . . would significantly reduce the flexibility needed by the Foundation to fulfill its basic mission." The Division Director also cited an expected increase in NSF's budget that will enable NSF to fully achieve the objectives of the act and therefore opposed increasing the set-aside above 1.25 percent. Officials at four agencies expressed their satisfaction with the current set-aside in terms of the quality of projects that they are able to support.

The National Aeronautics and Space Administration's (NASA) program manager, however, stated as his personal view that an increase to 2 percent, accomplished over a period of 2 to 3 years, could probably be assimilated by NASA. He added that with the very tight agency funding constraints, a higher set-aside level might not even be manageable unless other basic changes accompanied the increase. These additional

changes would require (1) increases both in NASA's administrative funding of SBIR activities and in the staffing level and (2) a careful determination of whether the additional set-aside might adversely affect NASA's ability to accomplish its projected missions.

The Department of Commerce's (DOC) Director, Office of Small and Disadvantaged Business Utilization, stated that "the Department of Commerce recommends a slow increase (0.25 percent a year) to a maximum of 2 percent." DOC's SBIR program coordinator considers an increase in the percentage of the set-aside to be a means of strengthening DOC's SBIR.

# Permanence and Congressional Review for SBIR

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A second proposed SBIR amendment would “make the SBIR program permanent with a formal congressional review every 10 years, beginning in 1993.”

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## Permanence

In general, we believe that SBIR should be subject to periodic reauthorization rather than established on a permanent basis. The reauthorization process allows for more comprehensive congressional oversight. This amendment to make the program permanent, however, would diminish the authority of congressional committees in the oversight process.

The Congress typically conducts its general oversight activities through its appropriation and authorization committees. SBIR, which depends on a set-aside for funding, raises special questions about the role of the appropriations committees. Although the Congress reviews the general R&D appropriations of the various agencies participating in SBIR, the program as a set-aside taken from these funds is not subject to a specific appropriations review process. In this regard, SBA officials told us that SBA—which is required to monitor, evaluate, and report the results of SBIR to the Congress—has never testified before an appropriations committee concerning SBIR.

Because there is no specific appropriations review for SBIR, the role of the authorization committees assumes greater importance. Thus far, congressional reauthorization of the program has occurred once since its establishment in 1982. The program was scheduled to expire in 1988, but 2 years before its expiration it was extended until September 30, 1993. Thus, in its original legislation, the Congress authorized the program for a period of 6 years and reauthorized it for a period of 5 more years beyond its previously scheduled expiration in 1988.

We believe that SBIR should remain subject to reauthorization. If the program is not subject to either a specific appropriations review or a periodic reauthorization, we believe that congressional oversight would be diminished to a greater extent than advisable. In addition, reauthorization puts the burden on agencies to defend their programs. This was the rationale for the use of “sunset” provisions in legislation; such provisions were designed to make agencies prove the merit of their programs or have them automatically discontinued. In general, the reauthorization process provides an opportunity for agencies to justify a program’s continuation on the basis of its quality.

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## Periodic Congressional Review

In suggesting a periodic reauthorization, we are also supporting a congressional review that would occur 1 or 2 years prior to the scheduled expiration of SBIR. As indicated above, the previous reauthorization hearings occurred 2 years prior to the program's scheduled expiration. Given the existing sunset provision for 1993, a reauthorization hearing in 1992 will provide an opportunity to review the program.

The time frame for periodic congressional review is difficult to determine precisely. Because a specific appropriations review process for SBIR is absent, the 10-year period proposed by the amendment may be too long. As noted above, congressional reviews of SBIR have been scheduled to occur somewhat more frequently. A continuation of this policy would seem advisable in view of the absence of a specific appropriations review for the program.



# Set-Aside for Program Administration

A third proposed SBIR amendment would “allocate a modest but appropriate share of each agency’s Small Business Innovation Research fund for administrative purposes for effective management, quality maintenance, and the elimination of program delays.”

This amendment would mix programmatic and administrative funds, thereby posing problems of budget control and oversight. However, we also believe that the amendment reflects an underlying concern among program managers about the adequacy of administrative funds for SBIR. Program managers at 6 of the 11 agencies expressed concern about this issue. Moreover, many of them are concerned about the additional strain on their resources that would result from any increase in the funding percentage. To the extent that administrative problems exist (or emerge) in SBIR because of a shortage of resources, agency efforts to determine and provide adequate support from non-SBIR funds would be preferable to the proposed amendment.

## Difficulties With Mixing Programmatic and Administrative Funds

The amendment would establish a new policy for SBIR of mixing programmatic and administrative funds. The effect would be to diminish oversight of the program and create potential problems of budget control. At present, the law establishing SBIR does not authorize this practice; funds for administering SBIR are taken from accounts other than the program itself. Administrative expenses may not be counted to make up the required 1.25-percent program set-aside. We support the present law because it preserves a sharp distinction between the funds to be used for the program and funds to be used for administrative purposes.

We believe that the amendment, in effect, would lead to a “set-aside of a set-aside.” As stated in our discussion of the second amendment above, SBIR does not receive a specific appropriations review, which raises questions about the adequacy of budget oversight and control. The same questions recur here. A “set-aside of a set-aside” would even further diminish congressional oversight. In addition, if the funding percentage is raised above the current 1.25-percent level, the problem of control would be correspondingly increased, because the amount of money going into the administrative set-aside would be increased.

Various officials also advised against the amendment. For example, the Assistant Administrator, Office of Innovation, Research, and Technology, SBA, told us that the proposal would break administrative ground throughout the federal government. He stated that SBIR is a procurement

program and that its contracting officers are logically paid from a "salary and expenses" pool, not from the program itself. He added that technical evaluations and peer reviews are normal activities for other R&D programs and are not funded from special set-asides for administration.

Similarly, the Washington, D.C., Director of the Small Business High Technology Institute, a trade association representing the interests of small businesses, criticized the proposal as "a radical departure" from the general way of conducting government business. He believes that program funds should be kept separate from administrative funds because the separation gives management more control over the balancing of a program and its administrative support.

In addition, the coordinator of the DOD SBIR told us that, although he initially supported the amendment, his concerns about setting an unfavorable precedent have led him to oppose it. He indicated that a special set-aside would create additional tracking and reporting requirements that would translate into additional personnel costs to DOD and the contractor. He believes that the extra personnel costs would not ensure any measurable improvement in SBIR operations.

By contrast, we also heard arguments in favor of the amendment. These arguments were based on two lines of thought. First, according to a private sector expert on SBIR who serves as the President of the Innovation Development Institute, a small business consulting firm, a set-aside taken from program funds would be a way of resolving the administrative overload connected with SBIR. Second, according to one program manager, the chance of problems resulting from a special set-aside fund would be minimal. He noted that the amounts of money would be relatively small and almost entirely "locked in" to meet the demands of the program. Although these arguments have merits, we do not believe that they should outweigh concerns about mixing programmatic and administrative funds.

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## Comments by SBIR Managers and Other Agency Officials

We asked program managers for their views on two questions regarding the amendment: If the current 1.25-percent level for SBIR funds remains unchanged, is a set-aside for administrative purposes needed? Would an increase in the percentage of the SBIR set-aside strengthen the need for a special administrative fund?

Comments from program managers and other officials at seven agencies indicate a general lack of support for the amendment if the 1.25-percent

funding level remains unchanged. Officials at these agencies—DOD, NSF, NRC, EPA, DOT, HHS, and DOC—basically see no need for the set-aside at present, although officials at HHS and DOC said that an increase in the size of the program would lead them to reverse their views and endorse a limited use of program funds for administrative purposes.

Officials at four agencies, however, believe that a set-aside would be desirable or acceptable even at the current 1.25-percent funding level. DOE's program manager stated that "... the administrative support for SBIR is vulnerable to pressures from other programs competing for the same program direction funds. A reduction in the SBIR administrative support would cause severe deterioration in the quality of the SBIR program. For this reason, even if the current SBIR set-aside of 1.25 percent remains unchanged, there is a strong need to establish a set-aside for administrative purposes."

NASA's program director stated that "permission to utilize a reasonable amount of the set-aside would permit us to run a better SBIR program." He regards the proposed use of program funds for administrative purposes as a means of resolving the shortage of administrative resources for SBIR in NASA.

ED's SBIR program coordinator supported the limited use of a set-aside for administrative costs, including travel and consultants.

The Administrator, Cooperative State Research Service, USDA, stated that he could support the concept of using SBIR set-aside funds to cover administrative costs. However, he also indicated that USDA's current method of supporting the program from non-SBIR funds is working satisfactorily.

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## Concerns About the Adequacy of Administrative Funds for SBIR

We believe that the proposed amendment reflects an underlying concern about the adequacy of administrative funds for SBIR. We discussed this issue with officials in the private sector and with SBIR managers. They expressed concerns about the adequacy of funds in this area and the additional strains on administrative resources that would result from any increase in the funding percentage.

The President of the Innovation Development Institute said that problems due to a shortage of administrative resources exist in some agencies. She added that some of the "overload" is built into the very nature of the program: it is directed to small businesses with relatively small

awards, so the efficiency of managing fewer, larger awards is lost. One of the largest single administrative burdens, the task of reviewing 17,000 applications this year, poses a substantial challenge to the agencies. She stated that a solution to SBIR's administrative problems will become imperative if the funding percentage is increased above 1.25 percent.

The official from the Small Business High Technology Institute mentioned earlier also believes that the administrative side of SBIR is not being adequately supported in some agencies. He said that officials at several agencies have found the number of awards rising without a proportional increase of staff. He also mentioned the "peakloading" aspect of the program, in which SBIR staff can handle the work load for part of the year but then are overloaded with certain phases of the work, such as processing proposals.

Program managers at 6 of the 11 agencies also expressed concerns about these issues. For example, DOD's program coordinator stated that the program is stretching the available administrative resources to the limit at present. He added that any increase in the level of program funding above the current 1.25 percent would create further administrative difficulties and may require additional assistance. NASA's program director stated that SBIR administrative costs have been held to levels that for most of NASA's R&D programs would be considered seriously inadequate. He indicated specific problems resulting from the current level of administrative funding; they included inadequate support for travel, on-site project monitoring, outreach, publication of documents, clerical support, and recordkeeping. Program managers at four other agencies expressed various degrees of concern and noted specific effects of tight administrative resources, such as difficulty in reviewing large numbers of proposals or inability to accept SBIR-related speaking engagements because of a lack of travel funds. In addition, a majority of the program managers expressed strong concerns about the need for additional administrative resources if the program percentage is increased even slightly.

As the comments by private sector officials and agency program managers indicate, administrative problems due to a shortage of resources may exist in some agencies. In addition, in these agencies, any expansion of the program will strain available resources. As indicated above, however, we do not believe that a special set-aside from SBIR funds is the best way to address these concerns. Instead, to the extent that administrative problems exist (or emerge) in SBIR because of a shortage of

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resources, agency efforts to determine and provide adequate support from non-SBIR funds would be preferable to the proposed amendment.

# Lowering of the Threshold for Agency Participation

A fourth proposed SBIR amendment would “include within the Small Business Innovation Research program all agencies expending between \$20,000,000 and \$100,000,000 in extramural research and development funds annually.”

In general, the lowering of the threshold to \$20 million would establish extremely small SBIR programs that would be difficult to administer efficiently and would not be able to contribute significantly to meeting the SBIR goal of commercializing R&D activities.

At present, the amendment would establish two small programs in the Departments of the Interior and Justice.<sup>1</sup> According to officials in the Departments of the Interior and Justice, extramural R&D budgets for Interior and Justice in fiscal year 1988 were \$49.7 million and \$39.9 million, respectively. With the current 1.25-percent funding level applied, Interior would have only about \$621,000 and Justice only about \$500,000 for SBIR. These funds would enable them to make only a very small number of awards. SBIR allows an average of \$50,000 for a Phase I award to explore the scientific merit and feasibility of a project; it allows up to \$500,000 for a Phase II award for further development. Even if one assumed that these awards were kept as small as possible—i.e., about \$30,000 for Phase I and \$150,000 for Phase II—Interior could make only about six Phase I and three Phase II awards. Justice would be able to provide only about six Phase I and two Phase II awards.

The small size of these two programs would make them difficult to administer efficiently. To meet their SBIR responsibilities, agencies perform numerous administrative duties: determine categories of projects to be in the agency's SBIR, issue SBIR solicitations, receive and evaluate proposals resulting from SBIR solicitations, select awardees for SBIR funding agreements, administer an agency's SBIR funding agreements, make payments to SBIR award recipients, and submit an annual report to SBA and the Office of Science and Technology Policy. We believe that the cost of these administrative duties would outweigh the benefits to be gained from participating in the program.

In addition, these two programs would be too small to meet one of the major goals of SBIR, the commercialization of R&D activities. A total of two or three Phase II awards per agency would provide a very small

<sup>1</sup> We also contacted two additional agencies, the Department of the Treasury and the Tennessee Valley Authority, because budgetary data indicated that they might be affected by the amendment. However, officials at these two agencies said that their extramural R&D budgets fall below the minimum criterion of \$20 million.

pool from which to develop commercial products or services. It would be virtually impossible to make a significant contribution to commercializing R&D activities when perhaps only one project, or even none, was moving beyond Phase II into commercial development.

Various officials were also unwilling to support the amendment. For example, the Assistant Administrator, Office of Innovation, Research, and Technology, SBA, told us that the amendment would not lead to viable programs; he added that their "efficiency would be zero." Interior officials told us that Interior, which had developed an SBIR program beginning in 1983, had withdrawn from the program in 1986 partially because administrative support for the program was inadequate; they believed that such support would continue to be inadequate if they were to reenter the program. The President of the Innovation Development Institute said that as much as she would like to see the program strengthened and expanded, she would not be willing to support the amendment because of the small size of the programs that would result from it.

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