

# United States General Accounting Office Washington, DC 20548

June 4, 2001

The Honorable Christopher S. Bond Chairman The Honorable John F. Kerry Ranking Member Committee on Small Business United States Senate

The Honorable Sherwood L. Boehlert Chairman The Honorable Ralph M. Hall Ranking Minority Member Committee on Science House of Representatives

Subject: <u>Federal Research and Development: Contributions to and Results of the</u>

Small Business Technology Transfer Program

Research and development (R&D) are major factors in the growth and progress of industry and the national economy. However, basic research performed by the nation's research institutions—universities and colleges, federal laboratories, and nonprofit research centers—may not be translated into marketable technologies. Small businesses have a well-earned reputation for bringing new ideas to the marketplace but often lack the resources to carry out extensive R&D. In an effort to join the ideas and resources of the research institutions with the commercialization experience of small businesses, the Congress authorized the Small Business Technology Transfer (STTR) Pilot Program in1992 and reauthorized it in fiscal year 1997. The STTR program is scheduled to expire in September 2001.

Five agencies participate in the program, including the departments of Defense and Energy, and Health and Human Services' National Institutes of Health, the National Aeronautics and Space Administration, and the National Science Foundation. Each agency manages its own program, while the Small Business Administration plays a central administrative role, issuing policy directives and annual reports for the program. The 1992 act authorizes each agency having an external R&D budget in

excess of \$1 billion annually to set aside not less than 0.15 percent of that budget for the Program. Since the first grants became available in 1994, the STTR program has awarded approximately \$300 million to small businesses and research institutions to foster R&D.

The 1992 act established a three-phase structure for the STTR program. The first phase, not to exceed 1 year, is designed to determine the scientific, technical, and commercial merit and feasibility of a proposed idea. Upon successful completion of phase I, the second phase, not to exceed 2 years, is designed to further develop the idea. The statute established \$100,000 and \$500,000 as the general funding limits for phases I and II, respectively. The third phase, in general, is expected to result in commercialization or further continuation of R&D. However, no STTR funding is allowed for phase III. Additional developmental funding for phase III can include private-sector funds and federal, non-STTR funds.

The STTR Program is closely modeled on the Small Business Innovation Research (SBIR) Program, which was established in 1982. The two programs share the same goals and other basic features, including participation by many of the same agencies, the use of a percentage of the external budget for funding, and a three-phase approach. The key difference is that under the STTR program, a small business must partner with a nonprofit research institution. While this partnership is permitted under the SBIR program, it is not mandatory. This special STTR requirement reflects the fact that STTR was envisioned primarily as a technology transfer program, in which promising concepts originating in the nonprofit research community would move toward commercialization with the assistance of small businesses.

In preparation for the review and potential reauthorization of the STTR program, you asked us to address several issues. As agreed with your offices, we identified participating companies' views on (1) the contributions that the companies and the research institutions made to the R&D, (2) the results of the R&D, and (3) options for the future relationship between the STTR and SBIR programs.

In conducting our work, we surveyed all 166 companies that had received 201 Phase II STTR awards in fiscal years 1995 through 1997, the first 3 years when such awards were made. We chose the earliest recipients because studies by experts on technology development concluded that 5 to 9 years are needed for a company to progress from a concept to a commercial product. Our results are based on responses for 102 projects. See enclosure I for a copy of the questionnaire and the aggregate responses.

The following summarizes our findings:

• For the 102 partnerships that we reviewed, the companies reported that both the companies and the research institutions contributed significantly to the R&D. For example, the companies believed that both parties contributed significantly to the knowledge and/or expertise essential to the project. Furthermore, they generally believed that both parties contributed significantly in constructing or testing prototypes and in providing special equipment or facilities. However, the companies reported that, in aggregate, the companies played a substantially greater role in originating the key ideas for the

R&D; in their view, they originated or were primarily responsible for originating the key ideas in 72 percent of the projects.

- The companies reported a variety of results, including sales of a product, process, or service, the receipt of additional developmental funding, patents granted, and discontinuation of projects. As of April 2001, the companies reported about \$132 million in total sales and about \$53 million in additional developmental funding. About two-thirds of the projects with reported sales achieved their first sale in 1999 or 2000 and projected about \$900 million in additional sales by December 31, 2005. The companies also reported receiving 41 patents for the core technologies associated with their projects and the creation of 12 spin-off companies. Twenty-seven projects were discontinued. When asked to identify those factors that had a great role in the decision to discontinue the project, companies most frequently cited insufficient additional funding for further technical development.
- separation of the STTR and SBIR programs. For 96 percent of the projects in our survey, the companies had also won an award under the SBIR program. In this context we asked them to choose between four options for the future of the STTR program in relation to the SBIR program: (1) preserve its current separation from the SBIR program, (2) subsume it under the SBIR program with a portion of funds reserved for STTR-type partnerships, (3) subsume it under the SBIR program with no funds reserved for STTR-type partnerships, and (4) eliminate it entirely. For approximately 50 percent of their projects, the companies preferred the current separation of the STTR program from the SBIR program. Thirty-three percent favored the second option, 19 percent the third option, and only 1 percent supported the program's elimination.

### **Scope and Methodology**

We surveyed 166 companies that had received 201 Phase II STTR awards in fiscal years 1995 through 1997, the first 3 years when such awards were made. We did not include Phase II recipients from 1998 or later because, in most cases, they have not had sufficient time to demonstrate Phase III activity. We received questionnaire responses for 126 of the 201 projects. However, due to technical difficulties, we were not able to include the results from 24 of the questionnaires that we received. Thus, our results are based on 102 of the 201 projects. We did not survey the research partners of these companies. The questionnaire contained specific questions on the contributions to and results of the R&D for these awards. In addition, it identified companies that had received both STTR and SBIR awards. Participation in both programs enabled companies to choose among various options for the future of the STTR program in relation to the SBIR program. We conducted our review from July 2000 to June 2001 in accordance with generally accepted government auditing standards.

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As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this letter until 30 days after the date of this letter. At that time, we will send copies to the Honorable John D. Whitmore, Acting Administrator, Small Business Administration, and the heads of the other federal agencies participating in the Small Business Technology Transfer Program. We will also make copies available to others on request. The report will also be available on GAO's home page at <a href="http://www.gao.gov">http://www.gao.gov</a>.

If you have any questions about this letter or need additional information, please call me on (202) 512-3841 or Robin Nazzaro on (202) 512-6246. Key contributors to this report were Dennis Carroll, Vondalee Hunt, and Lynn Musser.

Jim Wells

Director, Natural Resources

ion Wells

and Environment

Enclosure

U.S. General Accounting Office

**GAO** 

Survey of Companies Receiving Small Business Technology Transfer (STTR) Phase II Awards Fiscal Years 1995 – 1997

October 2000

U.S. General Accounting Office 441 G Street, N.W. Washington, D.C. 20548-0001

#### Introduction

The Small Business Technology Transfer Program is scheduled to expire in 2001. The Committee on Science, House of Representatives, and the Committee on Small Business, United States Senate, have requested information on this program.

As part of a general review of the program, the U.S. General Accounting Office (GAO), an agency of the U.S. Congress, is conducting a study on the outcomes of STTR Phase II awards.

Your answers to this questionnaire will be combined with those of other companies and reported in summary form. A copy of GAO's final report will be made available to all participants in this survey.

#### **Instructions**

Upon completion of this questionnaire, please return it in the enclosed postage-paid envelope. If the envelope is misplaced, return your completed questionnaire to:

Mr. Dennis Carroll U.S. General Accounting Office 441 G Street, N.W., Room 6K17R Washington, D.C. 20548-0001

If you have any questions, please contact Dennis Carroll at (202) 512-6950 (email: CARROLLD.RCED@GAO.GOV) or Vondalee Hunt at (202) 512-6754 (email: HUNTV.RCED@GAO.GOV).

#### **Please Read Before Beginning**

The label on the front of this questionnaire identifies a specific STTR award and the year of the Phase II award. The questionnaire should be completed for the specific award identified in the label. If you had more than one STTR Phase II award, you may receive other questionnaires. Please complete a separate questionnaire for each award.

Note: If the information on the label is incorrect, please correct it before returning your completed questionnaire.

#### **Section I: Business-Research Institution Partnership** The STTR Program requires a partnership between a small business and a research institution. The questions in this section explore this partnership. The numbers may not add due to rounding. Part A: Background Information: Phase I Award 1. In what year was the company that 5. At the time you received this Phase I received this STTR award founded? award, had any individual(s) from your company previously worked Year company founded: Range: 1923 - 1997 Mean: 1985` with the specific researcher(s) associated with this award? (Please 2. About how many full-time equivalent check one.) employees worked for your company at the time your company received 46.5% ■ No this award? 49.5% Yes 4.0%Uncertain Number of employees at time 3 ■ Number missing of award: Range: 1-350 Mean: 44.1 3. About how many full-time equivalent employees currently work for your company? 6. Who made the first contact that led Number of employees to the partnership for this Phase I now: Range: 0 - 1000 Mean: 70.8 STTR award? (Please check one.) 78.6% Your company contacted the 4. At the time you received the Phase I research institution award, had your company previously 17.4% The research institution had any formal working arrangement contacted your company with the research institution 4.1% Other Please describe: partner? (Please check one.) Number missing 69.7% □ No ☐ Yes 28.3% □ Uncertain 2.0% □ Number 3 missing

that le origina	re did the key idea for the R&D ed to the Phase I STTR award ate? (Please check one.)	•	awar woul	ne absence of this Phase I STTR d, do you believe your company d have undertaken this project? se check one.)
52.0% 16.3% 20.4%	☐ Your company ☐ The research institution ☐ Both your company and the research institution, with your company primarily responsible		6.1% 17.4% 14.3% 31.6% 30.6%	<ul> <li>□ Definitely yes</li> <li>□ Probably yes</li> <li>□ Uncertain</li> <li>□ Probably no</li> <li>□ Definitely no</li> </ul>
3.1%	<ul> <li>Both your company and the research institution, with the research institution primarily</li> </ul>		4	□ Number missing
5.1%	responsible  Both your company and the research institution, with			Phase II Award re was the Principal Investigator
3.1% 4	both contributing equally  ☐ Other <i>Please describe</i> : ☐ Number missing			his project located at the time e Phase II award? (Please check
<u>rights,</u> institu negoti	espect to intellectual property how fair was the research ation in their Phase I ations with your company? e check one.)		78.2% 10.9% 10.9%	<ul> <li>□ Your company</li> <li>□ The research institution</li> <li>□ Your company and the research institution each had a designated Principal Investigator</li> <li>□ Number missing</li> </ul>
49.0% 41.0% 2.0% 0.0% 8.0% 2	☐ Very fair ☐ Generally fair ☐ Generally unfair ☐ Very unfair ☐ No basis to judge ☐ Number missing		to th comp	h of the following contributions e project were made by your eany? (Please check all that apply.)
	espect <u>to business</u> <u>ctions,</u> how fair was the		91.1% 67.3% 58.4%	<ul> <li>☐ Knowledge and/or expertise essential to the project</li> <li>☐ A key technology or method</li> <li>☐ Assistance in constructing or testing a prototype</li> </ul>
negoti	ch institution in their Phase I ations with your company?		43.6% 30.7%	☐ Special equipment or facilities
52.0% 36.0% 3.0% 1.0% 8.0% 2	e check one.)  Very fair Generally fair Generally unfair Very unfair No basis to judge Number missing		30.7% 5.9%	☐ Manufacturing capability☐ Other <i>Please describe</i> :
		3	÷	

	16. Have other research institutions contacted your company about submitting a proposal with them to	the STTR program? (Please check one.)	58.6% $\square$ No $\Rightarrow$ Skip to Question 18 (page 5).	41.4% $\square$ Yes $\Rightarrow$ Continue with Question 17.	3 Number missing	17. Do you expect to submit an STTR proposal as a result of contact(s) initiated by another research institution? (Please check one.)  7.3%   No	56.1%			4
	contact submitt		58.6%		3	proposa initiate institut 7.3%	36.6%  Question 1  by the 41 r			4
ich of the following	ributions to the project were by the research institution? see check all that apply.)	<ul><li>☐ Knowledge and/or expertise essential to the project</li><li>☐ A key technology</li></ul>	☐ Assistance in constructing or testing a prototype	☐ Special equipment or facilities	<ul><li>☐ Manufacturing capability</li><li>☐ Other</li></ul>	effective was your company's nership with the research tution in achieving the technical ctives of the STTR project? se check one.)	<ul> <li>□ Very effective</li> <li>□ Generally effective</li> <li>□ Generally ineffective</li> <li>□ Very ineffective</li> <li>□ No basis to judge</li> <li>□ Number missing</li> </ul>	you continue to collaborate with research institution partner in prospective Phase III activity? se check one.)	<ul> <li>□ No</li> <li>□ Yes</li> <li>□ Uncertain</li> <li>□ Not applicable – the project is unlikely to achieve Phase III activity</li> <li>□ Number missing</li> </ul>	
13. Whi	contr made (Pleas	74.0% 37.0%	42.0%	55.0%	6.0% 4.0%	partn instit objec	51.5% 40.6% 5.0% 1.0% 2.0%	your any p	20.4% 38.8% 22.5% 18.4%	

#### **Section II:**

### Additional Developmental Funding and Sales

This section asks about the overall results from your STTR Phase II award.

Note: Use the following definitions in answering Question 18.

**Additional Developmental Funding:** Funds from private sector sources, federal sources (including subsequent STTR or SBIR awards), or from your own company used for further development of the core technology associated with this Phase II award.

**Sales:** Sales of a product, process, or service, to federal or private sector customers resulting from the core technology associated with this Phase II award. A sale also includes the sale of technology or rights, etc.

The numbers in () represent the number of projects that responded to the questions.

18. Has the core technology associated with this Phase II award led to additional developmental funding and/or sales and is further work on this technology underway? (Please check the statement that best describes the status of your project.)

25.3% (25)	<ul> <li>A. Funding and/or sales have not occurred, are not expected, and this project has been dropped.</li></ul>
2.0% (2)	<ul> <li>□ B. Funding and/or sales have occurred, but this project has been dropped.</li> <li>□ Complete all questions in this section.</li> </ul>
51.5% (51)	<ul> <li>□ C. Funding and/or sales have occurred, and further work is underway.          ⇒ Skip to Question 20 (page 7).</li> </ul>
18.2% (18)	<ul> <li>□ D. Funding and/or sales have not yet occurred but are expected, and further work is underway.</li> <li>□ Skip to Question 22 (page 8).</li> </ul>
3.0% (3)	<ul> <li>□ E. Phase II is still in progress and no funding or sales have yet occurred.          ⇒ Skip to Question 22 (page 8).</li> </ul>
3	□ Number Missing

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Reminder: Question 19 should be answered only by those individuals who checked the first box (A) or second box (B) for Question 18 on the previous page, indicating that the Phase II award project has been dropped.

## 19. How much of a role did the following factors play in your company's decision to drop this Phase II award project? (For each factor, please check one box.)

Factors Influencing Decision to Drop Phase II Award Project	No Role	Little Role	Some Role	Moderate Role	Great Role	Number Missing
Project goal was achieved (e.g., a prototype was delivered for federal agency usage)	40.7% (11)	7.4% (2)	14.8% (4)	7.4% (2)	3.7% (1)	7
Market demand was small and company met existing need	18.5% (5)	11.1% (3)	3.7% (1)	11.1% (3)	29.6% (8)	7
Higher level of risk than anticipated reduced the sales potential	14.8% (4)	18.5% (5)	11.1% (3)	18.5% (5)	11.1% (3)	7
Additional funding for further technical development was insufficient	11.1% (3)	0.0%	3.7% (1)	14.8% (4)	40.7% (11)	8
Company shifted priorities to other projects	22.2% (6)	18.5% (5)	7.4% (2)	14.8% (4)	18.5% (5)	5
Principal Investigator left the research institution	59.3% (16)	7.4% (2)	3.7% (1)	3.7% (1)	3.7% (1)	6
Main collaborator left the research institution	66.7% (18)	3.7% (1)	0.0% (0)	3.7% (1)	3.7% (1)	6
Difficulties with the research institution	51.9% (14)	7.4% (2)	3.7% (1)	11.1%	0.0% (0)	7
Other: Please specify:	7.4% (2)	0.0%	3.7% (1)	0.0%	11.1% (3)	21

Reminder: If you checked the first box (A) for Question 18 on the previous page, indicating that no sales have occurred, then you should skip to Question 30 (page 11). If you checked the second box (B) for Question 18, then you should continue with the rest of the questions in this section.

Question 19 should have been answered by the 27 respondents who checked box (A) or box (B) in Question 18.

Questions 20-21 should have been answered by the 53 respondents who checked box (B) or box (C) in question 18.

20. How much of a role (if any) has this Phase II award played in achieving the following results? (Check one box for each of the listed results. If one of the results has not yet been achieved, then select "none" for it.)

		Role of Project						
Results	None	Minor	Moderate	Major	Number Missing			
	13.2%	9.4%	24.5%	50.9%	1			
Obtaining additional	(7)	(5)	(13)	(27)	İ			
developmental funding	` `	' '		` `	ŀ			
Achieving sales of a product,	11.3%	18.9%	20.8%	43.4	3			
process, service, or other sale	(6)	(10)	(11)	(23)				
(e.g., rights to technology)			1					

21. To date, what additional developmental funding has your company received for the core technology associated with this award? (Enter dollars provided by each of the following sources. If none, enter 0 (zero)).

Source of Funding	Dollars (in millions)
Your own company	\$ 10.0 m
Other private companies	\$ 11.5 m
Your research institution partner(s) for this project	\$ .4 m
Other research institution(s)	\$ 2.2 m
Other federal awards (including subsequent STTR or SBIR awards)	\$ 21.9 m
Venture capital institution(s)	\$ 1.5 m
Private investor(s)	\$ 3.9 m
State insitution(s)	\$ 1.6 m
Other Please describe:	\$ .1 m
Total amount	\$53.1 m

additio require potenti associa (Enter o	s your estimate of the onal developmental funding ed to realize the full sales ial of the core technology ated with this Phase II award? dollars. If none, enter 0.)	2	ass whi you wit in t	ociated ich of th ir comp h other the Unit	of the core technology with this Phase II award to following describes any's finalized agreement companies and investors ted States and foreign (Check all that apply.)
	d: Range: \$0 – \$60.0 million				(
22.4	Mean: \$2.9 million		8.9% 5.4% 7.6%		Licensing agreement(s) Joint venture agreement(s) Marketing/distribution
	esult of the core technology ated with this Phase II award,		- 40/	_	agreement(s)
	of the following describes		5.4% 5.4%		Manufacturing agreement(s Sale of technology or rights
	ompany's <u>ongoing discussions</u>		2.7%		Sale of partial ownership
	ther companies and investors United States and foreign		5.4%		Sale of complete ownership
countri	ies? (Check all that apply.)	5	4.1%		None of the above
46.0% 36.5% 33.8%	☐ Licensing agreement(s) ☐ Joint venture agreement(s) ☐ Marketing/distribution agreement(s)	,	6.8%		Other Please describe:
20.3% 13.5% 10.8% 6.8%	<ul> <li>□ Manufacturing agreement(s)</li> <li>□ Sale of technology or rights</li> <li>□ Sale of partial ownership</li> <li>□ Sale of complete ownership</li> </ul>	2	had pro- froi	l any accesses, m the co	ompany and/or licensee tual sales of products, services, or other sales ore technology associated
25.7%	☐ None of the above			t apply.)	hase II award? (Check al
8.1%	☐ Other <i>Please describe</i> :	5	5.4%		No sales to date⇒Skip to Question 29
		4	3.8% 4.1% 3.0%		Sales of product(s) Sales of process(es) Sales of service(s)
			1.4%		Other sales Please describe
			-		
			-		

26. For your company and/or your licensee, when did the first sale resulting from the core technology associated with this Phase II award occur?

Year when first sale occurred:

(Question 26 was answered by 29 projects)

Percent/ (frequency)	Year
3.5% (1)	1996
20.7% (6)	1997
10.3% (3)	1998
34.5% (10)	1999
31.0% (9)	2000

27. What are the approximate total sales, for your company and/or your licensee, resulting from the core technology associated with this Phase II award? (Enter dollars. If none, enter 0.)

Sales of product(s), process(es), and/or service(s):	Total dollars from sales:
To Date:	\$ 132.1 million
Expected by	
December 31, 2001:	\$ 131.6 million
Expected by	
December 31, 2005:	\$ 900.4 million
Please use this space	to provide

Please use this space to provide optional explanation for any of the above numbers.

28. To date, about what percent of total sales from the core technology associated with this Phase II award has gone to the following customers? (If none, enter 0. Round to whole percents. Percentages should total 100%)

Number of projects reporting 50% or more of total sales to the following customers:

Customers	Number of Projects
Private sector	13
Department of Defense (DOD)	4
Prime contractors for DOD	5
NASA	1
Other federal agencies	0
State or local government(s)	0
University and/or other non-profit research	
institution(s)	3
Export markets	3
Other Please specify:	0

Note: Question 28 was answered by 29 projects. One project did not have any total sales of 50% or more to one customer. One project had total sales of 50% to each of two customers (private sector and NASA).

## Enclosure I

29. Please indicate the status of marketing activities by your company and/or your licensee for the core technology associated with this Phase II award. (For each activity, check one box under status.)

	Status of Marketing Activity					
Marketing Activity	Plan to implement this but have not yet started	Currently being implemented	Completed	Have no plans to implement this activity	Number Missing	
Marketing Plan	27.0% (20)	41.9% (31)	16.2% (12)	6.8% (5)	6	
Hiring Marketing Staff	28.4% (21)	16.2% (12)	16.2% (12)	23.0% (17)	12	
Test Marketing	27.0% (20)	27.0% (20)	12.2% (9)	16.2% (12)	13	
Advertising/ Marketing	27.0% (20)	31.1% (23)	9.5% (7)	14.5% (11)	13	

#### Section III: Benefits to Your Company

This section asks about benefits to your company as a result of this STTR award.

30. About what percentage of your company's growth would you attribute to the STTR program? (Please check one.)

50.0% (49)	Less than 5%
29.6% (29)	□ 5% to 25%
13.3% (13)	□ 26% to 50%
3.1% (3)	□ 51% to 75%
4.1%(4)	☐ More than 75%
4	☐ Number missing

31. For each of the following factors, please indicate the degree to which your company has benefited from this Phase II award. (For each factor, check one box under degree of benefit.)

	Degree of Benefit						
Factors	No Benefit	Little Benefit	Some Benefit	Moderate Benefit	Great Benefit	Not Applicable	Number Missing
Increased credibility and financial stability of your company	6.0% (6)	13.0% (13)	31.0% (31)	15.0% (15)	33.0% (33)	2.0% (2)	2
Increased retention and/or aided in hiring of personnel	14.1% (14)	14.1% (14)	23.2% (23)	19.2% (19)	25.3 % (25)	4.0% (4)	3
Increased staffs' skills	1.0% (1)	7.0% (7)	21.0% (21)	30.0% (30)	41.0% (41)	0.0%	2
Increased your company's development of other products, processes, or services	3.0% (3)	9.9% (10)	19.8% (20)	32.7% (33)	33.7% (34)	1.0% (1)	1
Enabled your company to acquire valuable equipment	31.6% (31)	19.4% (19)	19.4% (19)	12.2% (12)	14.3% (14)	3.1% (3)	4
Led to additional STTR and/or SBIR awards	21.4% (21)	9.2% (9)	23.5% (23)	13.3% (13)	26.5% (26)	6.1% (6.1)	4
Increased or established your company's production capability	31.3% (31)	9.1% (9)	16.2% (16)	13.1% (13)	16.2% (16)	14.1% (14)	3

11

copyrig disclos associa Include	give the number of patents, thts, and/or invention ures for the core technology ted with this Phase II award. e all patents, copyrights, and		
your co	on disclosures generated by ompany and by the research tion. (Enter number(s). If none,		
	TOTAL NUMBER		
Number Number Number	on disclosures: 98 repatents applied for: 73 repatents received: 41 recopyrights applied for: 10 recopyrights received: 8		
as a res associa	of the following has occurred sult of the core technology ted with this Phase II award? check one.)		
0.0% (0)	☐ Made an initial public stock offering		
12.0% (12)	☐ Established a spin-off company		
0.0% (0)	☐ Both of the above		
88.0% (88)	☐ Neither of the above		
2	□ Number missing		
		12	
*			

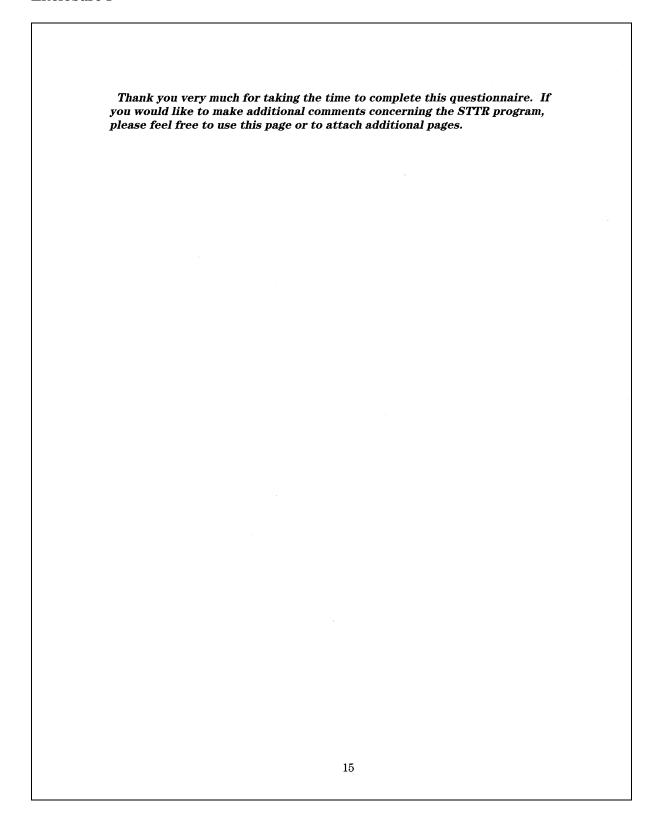
#### Section IV: Comparison of the STTR and SBIR Programs

This section asks for your views about the STTR and SBIR Programs.

		any ever submitted an ? (Please check one.)	the S	result of your experience with TTR and SBIR programs, which of the following statements best	
		No <i>⇒Skip to Section V,</i> Page 14	describes your view of the STTR program in relation to the SBIR program? (Please check one.)		
96.0% (97)	□ Yes	3			
1	□ Nui	mber missing	46.4% (45) 1.0% (1) 32.0%	<ul> <li>The STTR program should be continued as a separate program.</li> <li>The STTR program should be eliminated.</li> <li>The STTR program should</li> </ul>	
35. Has your company won an SBIR award or awards? (Please check one.)		(31)	be subsumed under the SBIR program with a portion of funds reserved for STTR-type partnerships  The STTR program should		
4.1% (4) 93.8% (91) 2		No Yes Missing	(18)	be subsumed under the SBIR program, but no funds should be reserved for STTR-type partnerships	
view o partne	f STTR's ership bet	nt best describes your mandatory tween a company and itution? ( <i>Please check</i>	2	☐ Missing	
55.7% (54)	beca colla	requirement is important ause it leads to aborations that would not ar otherwise.			
41.2% (40)	☐ The nece colla	requirement is not essary because aborations would occur	Ongo	tions 35 – 37 should have been	
3	anyway. □ Missing		questions 35 – 37 should have been answered by respondents who answered yes to Question 34.		

#### Section V: Information about Individual(s) Completing Questionnaire and Research Institution Contacts

Please provide the following information on all individuals who completed or helped to complete this questionnaire. (Attach additional sheets if necessary.) Name: Title: Phone: Email: Name: Title: Phone: Email: Name: Title: Phone: Email: Please provide the following information on the person who was your company's main point of contact at the Research Institution that was your partner. Name: Title: Research Institution: Address: Phone: Email:



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