

## $S_{\text {maLl }} B_{\text {usiness }}$

## 1 ECHNOLOGY

## — RANSFER D ROGRAM (STTR)

## ANNUAL REPORT - FY 2005

Office of Technology
U.S. Small Business Administration

## Table of Contents

Introduction ..... 1
Summary of Legislation ..... 1
Technology Resources Network ..... 1
Summary of Data ..... 2
HUBZone Small Business Concerns ..... 2
Executive Order 13329 ..... 3
Federal and State Technology Partnership ..... 3
STTR Program Data - Fiscal Year 2005 ..... 4

The SBA is currently developing the government database which will maintain information on all Phase II awards funded under the STTR program. This database will not be accessible by the public; therefore, any confidential information that is provided by the STTR Phase II awardees will not be disclosed to the public. A username and password will be required to access the database. The SBA will control the issuance of the username and passwords. The database is being designed to allow the SBA, each participating agency, Government Accountability Office, the National Academy of Science and the Congress to effectively measure the impact and success of the program.

The Office of Management and Budget has recently approved the SBA's survey form for STTR applicants, which request information regarding the commercialization of work completed under past Phase II STTR awards. The survey form is part of SBA's current enhancement of its Tech-Net data system. This reporting system will be required for STTR applicants as well as SBIR applicants.

> \#

## Summary of Data

During FY 2005, small businesses submitted 3,380 proposals under the STTR program, including 2,931 Phase I proposals and 449 Phase II proposals. A total of 832 awards were made to 662 different small businesses including 611 Phase I awards and 221 Phase II awards. In FY 2005, total STTR program obligations were $\$ 233,314,432$. Small business received $\$ 139,021,735$ or 60 percent of total funding. Research institutions received $\$ 87,424,277$ or 37 percent.

## HUBZone Small Business Concerns

The agencies received 77 Phase I and 9 Phase II proposals. The participating agencies made six Phase I awards totaling \$569,725 and three Phase II awards totaling $\$ 1,842,223$ to HUBZone certified small business concerns.

Table 1: Number of STTR Awards FY 1994 through FY 2005

| Fiscal Year | Phase I | Phase II | Totals |
| :---: | ---: | ---: | ---: |
| 94 | 198 | 0 | 198 |
| 95 | 238 | 22 | 260 |
| 96 | 238 | 88 | 326 |
| 97 | 260 | 89 | 349 |
| 98 | 208 | 109 | 317 |
| 99 | 251 | 78 | 329 |
| 00 | 233 | 95 | 328 |
| 01 | 244 | 93 | 337 |
| 02 | 356 | 114 | 470 |
| 03 | 397 | 111 | 508 |
| 04 | 667 | 193 | 860 |
| 05 | 611 | 221 | 832 |
| Total | 3,901 | 1,213 | 5,114 |

Table 2: Value of STTR Awards-FY 1994 through FY 2005 (in millions of dollars)

| Fiscal Year | Phase I | Phase II | Totals |
| :---: | ---: | ---: | ---: |
| 94 | $\$ 18.9$ | $\$ 1$ | $\$ 18.9$ |
| 95 | 23.0 | 10.8 | 33.8 |
| 96 | 22.7 | 41.8 | 64.4 |
| 97 | 24.1 | 44.8 | 69.0 |
| 98 | 19.7 | 45.1 | 64.8 |
| 99 | 24.3 | 41.0 | $* 65.0$ |
| 00 | 24.0 | 46.0 | $* 70.0$ |
| 01 | 25.4 | 46.0 | $* 71.4$ |
| 02 | 36.3 | 55.3 | $* 91.6$ |
| 03 | 41.1 | 51.0 | ${ }^{*} 92.1$ |
| 04 | 76.8 | 107.8 | $184.6^{*}$ |
| 05 | 74.0 | 146.3 | 220.3 |
| Total | 410.3 | 635.9 | $1,046.2^{*}$ |

*Does not include modifications

## Introduction

This report is the twelfth annual report presented by the U.S. Small Business
Administration (SBA) pursuant to Public Law 102-564, the Small Business
Research and Development
Enhancement Act of 1992, as amended.
This report describes the operation and administration of the Small Business Technology Transfer program (STTR) for fiscal year (FY) 2005. This report also provides data on the results of the first 12 years of the STTR program, including the number of solicitations released, the number of proposals received and the number of awards resulting from those solicitations.

> m

## Summary of Legislation

## Public Law 102-564, as amended

Title I of Public Law 102-564 amended the Small Business Act by reauthorizing the Small Business Innovation Research (SBIR) program. Congress passed Title II of the Act authorizing the STTR program.

The STTR program shares the underlying philosophy of the SBIR program. It recognizes Federally funded research and development as a base for technological innovation that will contribute to the growth and strength of the Nation's economy. It differs from the SBIR program in that STTR awards are made to small businesses that pursue technological innovation through cooperative research and development with Federal laboratories and non-profit scientific and educational institutions. In September 1996, Public Law 104-208
reauthorized the STTR program through FY 1997. Public Law 105-135 reauthorized the program through September 30, 2005. In October 2005, Public Law 107-50 reauthorized the STTR program through FY 2009 and increased the program set-aside from .15 percent to .3 percent beginning in FY 2005.
m

## Technology Resources Network

As defined in Section 9 of the Small Business Act, the SBA has designed and implemented the Technology Resources Network (Tech-Net) to streamline and standardize the reporting of STTR awards and applicant information by the Federal agencies required to participate in the STTR program. The SBA had several working sessions with the agencies to define the input data fields and a core set of output reports to help the SBA administer the program. The SBA incorporated the unique needs of each agency into the design of the database system to ensure that the system would provide much needed award and applicant information. Information such as name, size, location, abstracts and identifying number of each small business concern that has received a Phase I or Phase II award is available in this database. Agencies now have the ability to review awards and applicant information, and edit previously reported data interactively through Tech-Net. The public version of this database can be accessed by visiting the website http://tech-net.sba.gov. The participating agencies are providing information needed in a timely manner to maintain the database.

## " <br> Executive Order 13329

On February 24, 2004, the President signed Executive Order 13329, Encouraging Innovation in Manufacturing. The Executive Order states that continued technological innovation is critical to a strong manufacturing sector of the United States economy. The Executive Order recognizes that the commercialization of technologies, products, or services funded through the SBIR and STTR programs play a crucial role in stimulating the United States economy. The Executive Order further acknowledges that the research and development work performed by small businesses participating in these two important programs have contributed to our National defense, improved our health and welfare, protected the environment, and improved our production processes. SBA is proposing to amend the STTR Policy Directive to address the Executive Order.

During FY 2005, there were a total of 167 STTR Phase I and Phase II awards that involved manufacturing topics. Those awards totaled $\$ 48.8$ million.

## m

## Federal and State Technology Partnership

Because funds were not appropriated for the Federal and State Technology Partnership (FAST) program for FY 2005, there is no new activity to report for that period. However, during FY 2005, 16 FY 2004 FAST award recipients requested no-cost extensions to complete proposed projects. Those award recipients were Alaska, Arizona, Arkansas, Indiana, Kentucky, Louisiana, Maryland, Mississippi,

New Mexico, North Dakota, Oklahoma, Pennsylvania, Puerto Rico, South Dakota, Washington, and Wyoming.
STTR Program Data - Fiscal Year 2005

| AGENCY OBLIGATIONS | DOD | NSF | DOE | NASA | HHS | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGENCY EXTRAMURAL BUDGET | 41,946,533,000 | 3,590,000,000 | 4,113,116,000 | 4,400,000,000 | 22,836,000,000 | 76,885,649,000 |
| AGENCY STTR BUDGET | 125,843,056 | 10,800,000 | 12,174,000 | 13,200,000 | 68,500,000 | 230,517,056 |
| DOLLARS OBLIGATED | 123,943,003 | 11,355,846 | 12,179,909 | 12,731,859 | 73,103,815 | 233,314,432 |
| \% OF EXTRAMURAL BUDGET | 0.30\% | 0.32\% | 0.30\% | 0.29\% | 0.32\% | 0.30\% |
| DEFICIT/SURPLUS | -1,900,053 | 555,846 | 5,909 | $-468,141$ | 4,603,815 | 2,797,376 |
| STTR AWARD PROFILE - COMMITMENTS |  |  |  |  |  |  |
| TOTAL PHASE I AWARDS | 322 | 29 | 30 | 40 | 190 | 611 |
| MINORITY DISAD. PHASE I AWARDS | 29 | 7 | 5 | 11 | 1 | 53 |
| TOTAL PHASE II AWARDS | 132 | 9 | 13 | 25 | 42 | 221 |
| MINORITY/DISAD. PHASE II AWARDS | 6 | 0 | 0 | 4 | 1 | 11 |
| TOTAL PHASE I DOLLARS AWARDED | 29,458,086 | 3,825,494 | 2,994,881 | 3,994,162 | 33,662,192 | 73,934,815 |
| MIN/DISAD. PHASE I DOLLARS AWARDED | 2,744,592 | 499,793 | 496,822 | 1,098,978 | 207,078 | 5,047,263 |
| TOTAL PHASE II DOLLARS AWARDED | 84,098,426 | 4,921,617 | 9,185,028 | 8,737,697 | 39,441,623 | 146,384,391 |
| MIN/DISAD. PHASE II DOLLARS AWARDED | 4,244,371 | 0 | 0 | 2,349,761 | 820,375 | 7,414,507 |
| TOTAL PHASE I \& II AWARDED | 113,556,512 | 8,747,111 | 12,179,909 | 12,731,859 | 73,103,815 | 220,319,206 |
| AVERAGE AMOUNT PHASE I AWARDS (\$) | 91,485 | 131,914 | 99,829 | 99,909 | 177,169 | 121,006 |
| STTR SOLICITATION PROFILE |  |  |  |  |  |  |
| NO. OF SOLICITATIONS RELEASED | 1 | 2 | 1 | 1 | 1 | 6 |
| NO. OF RESEARCH TOPICS | 127 | 4 | 49 | 9 | 131 | 320 |
| NO. PHASE I PROPOSALS RECEIVED | 1,620 | 169 | 284 | 119 | 739 | 2,931 |
| NO. PHASE II PROPOSALS RECEIVED | 216 | 23 | 48 | 41 | 121 | 449 |
| RESEARCH INSTITUTION PROFILE |  |  |  |  |  |  |
| NUMBER OF FFRDCS | 15 | 2 | 18 | 2 | 2 | 39 |
| NUMBER OF UNIVERSITIES | 411 | 35 | 21 | 60 | 236 | 763 |
| NUMBER OF OTHER NON-PROFIT | 30 | 1 | 4 | 4 | 40 | 79 |

STTR Program Data - Fiscal Year 2005

|  | DOD | NSF | DOE | NASA | HHS | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COOPERATIVE RESEARCH PROFILE |  |  |  |  |  |  |
| TOTAL DOLLARS OF AWARDS | 113,556,512 | 8,747,111 | 12,179,909 | 12,731,859 | 73,103,815 | 220,319,206 |
| DOLLARS TO SMALL BUSINESS | 70,592,251 | 7,254,992 | 7,618,346 | 11,282,006 | 42,274,140 | 139,021,735 |
| DOLLARS TO RESEARCH INSTITUTION | 41,218,060 | 3,534,979 | 4,564,014 | 7,521,338 | 30,585,886 | 87,424,277 |
| NO. OF AWARDS TO UNIVERSITIES | 411 | 35 | 21 | 60 | 236 | 763 |
| DOLLARS TO UNIVERSITIES | 38,435,711 | 3,235,043 | 2,706,200 | 6,881,556 | 62,269,614 | 113,528,124 |
| NO. Of AWARDS TO FFRDCS | 15 | 2 | 18 | 2 | 2 | 39 |
| DOLLARS TO FFRDCS | 888,408 | 199,966 | 1,690,870 | 79,902 | 379,089 | 3,238,235 |
| NO. OF AWARDS TO OTHER NON-PROFITS | 30 | 1 | 4 | 4 | 40 | 79 |
| DOLLARS TO OTHER NON-PROFITS | 1,893,946 | 99,970 | 166,944 | 559,880 | 10,455,112 | 13,175,852 |
| PHASE I |  |  |  |  |  |  |
| NUMBER OF FFRDC AWARDS | 13 | 2 | 13 | 2 | 1 | 31 |
| NUMBER OF UNIVERSITY AWARDS | 286 | 26 | 13 | 36 | 163 | 524 |
| NO. OF OTHER NON-PROFIT AWARDS | 25 | 1 | 4 | 2 | 26 | 58 |
| TOTAL DOLLARS OF AWARDS | 29,458,086 | 3,825,494 | 2,994,881 | 3,994,162 | 33,662,192 | 73,934,815 |
| DOLLARS TO SMALL BUSINESS | 17,505,347 | 2,348,404 | 1,831,089 | 2,396,497 | 18,933,341 | 43,014,678 |
| DOLLARS TO RESEARCH INSTITUTIONS | 11,262,532 | 1,477,090 | 1,163,792 | 1,597,665 | 14,475,615 | 29,976,694 |
| NO. OF AWARDS TO UNIVERSITIES | 286 | 26 | 13 | 36 | 163 | 524 |
| DOLLARS TO UNIVERSITIES | 9,920,131 | 1,177,154 | 501,902 | 1,437,809 | 29,483,483 | 42,520,479 |
| NO. OF AWARDS TO FFRDCS | 13 | 2 | 13 | 2 | 1 | 31 |
| DOLLARS TO FFRDCS | 507,899 | 199,966 | 494,946 | 79,902 | 198,227 | 1,480,940 |


|  | DOD | NSF | DOE | NASA | HHS | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NO. OF AWARDS TO OTHER NON-PROFITS | 25 | 1 | 4 | 2 | 26 | 58 |
| DOLLARS TO OTHER NON-PROFITS | 834,494 | 99,970 | 166,944 | 79,954 | 3,980,482 | 5,161,844 |
| PHASE II |  |  |  |  |  |  |
| NUMBER OF FFRDCS | 2 | 0 | 5 | 0 | 1 | 8 |
| NUMBER OF UNIVERSITIES | 125 | 9 | 8 | 24 | 73 | 239 |
| NUMBER OF OTHER NON-PROFIT | 5 | 0 | 0 | 2 | 14 | 21 |
| TOTAL DOLLARS OF AWARDS | 84,098,426 | 4,921,617 | 9,187,479 | 8,737,697 | 39,441,623 | 146,386,842 |
| DOLLARS TO SMALL BUSINESS | 53,086,904 | 4,906,588 | 5,787,257 | 8,885,509 | 23,340,799 | 96,007,057 |
| DOLLARS TO RESEARCH INSTITUTIONS | 29,955,528 | 2,057,889 | 3,400,222 | 5,923,673 | 16,110,271 | 57,447,583 |
| NO. OF AWARDS TO UNIVERSITIES | 125 | 9 | 8 | 24 | 73 | 239 |
| DOLLARS TO UNIVERSITIES | 28,515,580 | 2,057,889 | 2,204,298 | 5,443,747 | 32,786,131 | 71,007,645 |
| NO. OF AWARDS TO FFRDCS | 2 | 0 | 5 | 0 | ${ }^{1}$ | 8 |
| DOLLARS TO FFRDCS | 380,494 | 0 | 1,195,924 | 0 | 180,862 | 1,757,280 |
| NO. OF AWARDS TO OTHER NON-PROFITS | 5 | 0 | 0 | 2 | 14 | 21 |
| DOLLARS TO OTHER NON-PROFITS | 1,059,452 | 0 | 0 | 479,926 | 6,474,630 | 8,014,008 |

