NJ SBIR/STTR Matching Rounds 1&2 Results

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What is the Federal SBIR/STTR Program?

• A $3.5 Billion early stage *nondilutive* competitive R&D fund for small businesses working on ideas that are too early-stage high risk for the private sector

• Program goals include:
  • Meet federal research and development needs
  • Using small businesses to stimulate technological innovation
  • Fostering and encouraging participation by socially and economically disadvantaged small business concerns and women-owned business concerns in the SBIR/STTR program.
  • Commercialization of advanced technology
Funding Invention to Innovation

Source: National Science Foundation
The Federal SBIR/STTR Program

THREE-PHASED PROGRAM

Phase I
Feasibility

A feasibility study to
determine the scientific or
technical merit of an idea.

Phase II
Demonstration

A technology development
phase in which prototypes are
built and tested.

Phase III
Commercialization

Commercialization resulting
in sales of products to
military and civilian markets.
## Why Small Businesses Participate in SBIR / STTR

1. **Largest source of Federal R&D funds for small businesses**

2. **SBIR invests more than VC community in pre-seed and early stage technology**

3. **No dilution of equity**

4. **Company retains data rights for 4 years (5 years in DoD)**

5. **Follow-on Phase III awards can be sole sourced**

6. **Company may maintain ownership of equipment purchased under Phase I and II**

7. **Builds credibility of company’s research while learning government contracting processes to become a supplier**

8. **State economic development programs, angels, and VC use SBIR as a pre-qualifier for their investment**
### Fiscal Year 2020 SBIR/STTR Budgets (Combined)

#### Agencies with SBIR and STTR Programs

<table>
<thead>
<tr>
<th>Agency</th>
<th>2020 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Defense (DoD)*</td>
<td>$1.97 B</td>
</tr>
<tr>
<td>Department of Health and Human Services (HHS)**, including the National Institutes of Health (NIH)</td>
<td>$1.21 B</td>
</tr>
<tr>
<td>Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)</td>
<td>$320 M</td>
</tr>
<tr>
<td>National Science Foundation (NSF)</td>
<td>$219 M</td>
</tr>
<tr>
<td>National Aeronautics and Space Administration (NASA)</td>
<td>$219 M</td>
</tr>
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</table>

#### Agencies with SBIR Programs

<table>
<thead>
<tr>
<th>Agency</th>
<th>2020 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Department of Agriculture (USDA)**</td>
<td>$30 M</td>
</tr>
<tr>
<td>Department of Homeland Security (DHS)</td>
<td>$14 M</td>
</tr>
<tr>
<td>Department of Commerce (DOC): National Institute of Standards and Technology (NIST)</td>
<td>$3.7 M</td>
</tr>
<tr>
<td>Department of Commerce (DOC): National Oceanic and Atmospheric Administration (NOAA)</td>
<td>$10 M</td>
</tr>
<tr>
<td>Department of Transportation (DOT)</td>
<td>$12.7 M</td>
</tr>
<tr>
<td>Department of Education (ED)</td>
<td>$7.7 M</td>
</tr>
<tr>
<td>Environmental Protection Agency (EPA)*</td>
<td>$3.7 M</td>
</tr>
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NIH also issues contracts; and, within DOC, NIST uses cooperative agreements.
2022 is 40\textsuperscript{th} anniversary of SBIR program inception

An economic assessment of USAF/Navy SBIR/STTR (Gaster 2017) found they generated $92B in total output and $8.8B in taxes (more than they cost) and $31B in wages.

A study of DoD SBIR/STTR 1995-2007 estimated 22:1 RoI and the creation of 65.5K jobs per year.
• Recognizing the contribution of innovative small businesses, states have developed matching programs to supplement the federal SBIR/STTR grants.

• As of June 2021, 26 states had active matching programs for Phase I and/or Phase II awards

• States can attract and retain new technology-based companies and boost the regional capabilities for new firm formation

• An assessment of One North Carolina Program (423 awards to 250 businesses) showed increased probability of sales for funded projects with 97 patents granted.
Program Summary:
The SBIR/STTR Support Program in New Jersey enhances the State’s innovation economy by providing financial support to small businesses seeking to or participating in the Federal SBIR/STTR program.

Two Grant components: Eligible companies may only apply for **ONE**:

- **Direct Funding**: for Phase I, Fast-Track, and Direct-to-Phase II Award Winners ($25k)
- **Bridge Funding**: for Phase II SBIR/STTR Applicants ($50k)
SBIR/STTR Support Program Awardees

CSIT has Awarded $1,900,000 to 66 NJ Companies in 3 Rounds of SBIR/STTR funding since program inception.
### Survey Results – 1 Year Post Match

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage/Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies growing employment</td>
<td>43% (1.36 jobs per co)</td>
</tr>
<tr>
<td>Companies growing physical space</td>
<td>25%</td>
</tr>
<tr>
<td>Growth of IP (patents)</td>
<td>100%</td>
</tr>
<tr>
<td>Follow on Funding</td>
<td>Multiple of Match – 14X</td>
</tr>
</tbody>
</table>
Survey Results – One Year Post Match

- All CSIT awardees were pre-Phase II so a key near term milestone is award of Phase II grants.
- First year awardees cited Pandemic vs Second year Funding
Risky Stage Leads to Skewed Distributions

- Employment distribution
- Patent Issuance distribution
- Gazelles will dominate long run performance
Additional Investment Attracted

- Within 1st year - $12.2MM (14.8X CSIT awards)
- Non-dilutive grants (54%), private investments (36%), loans (10%)
- One of 28 was already acquired for its technology
Comparison of Cohort 1 vs Cohort 2

- Other than the perceived challenges Pandemic vs Funding, there did not seem to be significant differences between the first two cohorts