Mastering Research Administration

A Complete Guide to the CRA®, CPRA®, and CFRA® Exams

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- These multiple-choice questions and the accompanying text were originally developed in 2022 and were reviewed and updated in August 2025. Grant policies, rules, and regulations may change over time. Please consult official sources for the most current information.
- While it is generally considered best practice to avoid negative phrasing and answer choices such as “all of the above” or “none of the above” in standardized multiple-choice questions, these materials were created for training purposes. In some instances, we have intentionally used such formats.

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CHAPTER 4
SBIR and STTR

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4.1. Introduction

SBIR (small business innovation research) and STTR (small business technology transfer) are two types of awards set aside for U.S. small businesses. These awards are legislatively mandated and are meant to de-risk entrepreneurship and stimulate technological innovation in the United States. The Small Business Administration (SBA) oversees the program.

4.2. Participating Federal Agencies

Many funding agencies – such as the NIH, NSF, and DoD – offer SBIR/STTR awards.

- Agencies with an extramural R&D budget > $100 million per year must set aside a portion of that budget for SBIR.
    - Currently (as of FY 2025), 3.2% of their extramural research and development (R&D) budget must be set-aside for SBIR.
- Agencies with an extramural R&D budget > $1 billion per year must set aside a portion for STTR.
    - Currently, 0.45% of their extramural R&D budget must be set-aside for STTR.

4.3. Eligibility

Small businesses that are eligible for such awards must be:

a) for-profit,

b) located within the U.S.,

c) at least 50% owned by Americans, and

d) 500 employees or fewer.

4.4. Phases

Both SBIR and STTR have three phases. A short summary of these phases is shown below.

Phase	Purpose	Duration	Funding
Phase I	Show technical merit and feasibility	Typically, 6 to 12 months	Typically, $50K - $250K
Phase II	Build the prototype	Approximately 2 years	Approximately $1M
Phase III	Commercialize the product	No limit	No funding

4.5. SBIR vs. STTR

The main purpose of SBIR is to encourage small businesses to conduct R&D in the U.S., but the main purpose of STTR is to encourage collaboration between U.S. small businesses and nonprofit research institutions for technology transfer. In line with this philosophy, small businesses **may apply for SBIR alone** (without any partners), although they may choose to have partners as well. By contrast, for STTRs, small businesses **must partner** with a university, a non-profit, or a federally funded research and development center (FFRDC). There is also a difference in the employment of the principal investigator(PI). See the table below.

For SBIR, the small business must receive at least 67% of the funding in Phase I and at least 50% in Phase II. For STTR, the small business must receive at least 40% (40% to 70%) of the funding, and the partner must receive at least 30% (30% to 60%) of the dollar amount.

The table below summarizes the main differences between SBIR and STTR:

Feature	SBIR (Small Business Innovation Research)	STTR (Small Business Technology Transfer)
Primary Purpose	Fund small businesses to conduct federal R&D with commercial potential	Encourage collaboration between small businesses and nonprofit research institutions for technology transfer

Feature	SBIR (Small Business Innovation Research)	STTR (Small Business Technology Transfer)
Partnering Requirement	Collaboration with a research institution is **optional**	Collaboration with a U.S. nonprofit research institution is **mandatory**
Work Allocation (Phase I)	≥ 67% by small business; ≤ 33% may be subcontracted	≥ 40% by small business; ≥ 30% by research institution
Work Allocation (Phase II)	≥ 50% by small business; ≤ 50% subcontracted	≥ 40% by small business; ≥ 30% by research institution
Principal Investigator (PI) Employment	PI must be **primarily employed by the small business**	PI may be employed by **either the small business or the research institution**
Agencies Participating	11 federal agencies (e.g., NIH, NSF, DoD, NASA, USDA)	5 federal agencies only (NIH, NSF, DoD, NASA, DOE)

4.6. Summary

SBIR and STTR are two cornerstone federal initiatives that each year provide billions of dollars in funding to small businesses in the United States to stimulate innovation. It is important to know about the: 1) the eligibility; 2) the phases of each (duration and funding); and 3) the salient differences between these two types of awards.

4.7. Practice Questions

1. SBIR stands for ______ Business Innovation Research award.
    a. Standard
    b. Small
    c. Smart
    d. Structural

2. STTR stands for__________.
    a. Small Business Technology Transfer
    b. Small Targeted Transfer of Research
    c. Structural Technology Transfer
    d. Structural Targeted Transfer of Research

3. Which one is correct about NIH SBIR awards?
    a. They are intended to support high-risk, innovative research in small businesses.
    b. American and Canadian businesses are eligible for funding.
    c. The duration of Phase I funding is typically 3 years.
    d. The duration of Phase II funding is typically 5 years.

4. Which one is NOT true about eligibility for SBIR projects?
   The company must be:
    a. A non-profit.
    b. Have a business location in the United States.
    c. Be owned at least 50% by US citizens or green card holder.
    d. Have no more than 500 employees (including affiliates)

5. The SBIR program was established in 1982 as a result of:
    a. President Ronald Reagan’s executive order.
    b. Passing the Small Business Innovation Development Act.

c. A request made from the Small Business Administration to other agencies.
d. A request from the small businesses to the Treasury Secretary Malcolm Baldridge.

6. The DIFFERENCE between SBIR and STTR awards is that the small business must be:
    a. Located within the US.
    b. For-profit.
    c. No more than 500 employees.
    d. Working with a university or non-profit research organization.

7. What is the minimum percentage of work that needs to be done by the small business and the federally funded research and development center (FFRDC), respectively, to qualify for an STTR award?
    a. 30%, 30%
    b. 30%, 40%
    c. 40%, 30%
    d. 40%, 40%

8. SBIR/STTR projects have _______ phases.
    a. 2
    b. 3
    c. 4
    d. 5

9. The primary objective of Phase I of SBIR is to:
    a. Build collaborations with universities.
    b. Establish technical merit and feasibility.
    c. Build a full-fledged prototype.
    d. Commercialize the product.

10. Which one is NOT true about the phases of STTR?
    a. Phase I: typically, 1 year and $150 thousand
    b. Phase II: typically, 2 years, and $1 million
    c. Phase III: commercialization, no time period, no SBIR/STTR funding
    d. Phase IV: post-marketing surveillance
11. Which federal agency (agencies) are required to contribute to SBIR funding?
    a. Small Business Administration (SBA)
    b. NIH, NSF
    c. NIH, NSF, and SBA
    d. All funding agencies with extramural R&D budget of at least $100 million
12. Which of the following is NOT correct about the agencies participating in SBIR/STTR?
    a. They need to set aside at least 3.2% of their extramural R&D for SBIR.
    b. Each agency sets up its own program, in accordance with 15 U.S.C. 638.
    c. Only those with an extramural R&D funding over $1 billion must participate in the STTR program.
    d. The cap for each award has no limit and is determined by the agency.
13. Which is correct about SBIR vs. STTR?
    a. SBIR has 3 phases, while STTR has 4 phases.
    b. SBIR Phase I takes approximately 6 months, while STTR Phase I is about 24 months.
    c. SBIR is for small businesses within the U.S., while STTR is for small businesses in all North American countries.
    d. The PI for SBIR must be primarily employed by the small business, while the PI of STTR can be employed by either the small business or the partnering non-profit.

14. A small business wants to partner with a major university to apply for a Phase 1 SBIR award. What percentage of the award, at least, must go to the small business?
    a. 40%
    b. 50%
    c. 67%
    d. 80%
15. A small company, with 200 employees, has its headquarters in Dubai, U.A.E. Which of these awards can it apply for?
    a. SBIR, STTR
    b. SBIR, but not STTR
    c. STTR, but not STTR
    d. Neither SBIR, nor STTR

4.8. Answers to Practice Questions

1. B
2. A
3. A Only U.S.-based small businesses (≤500 employees, majority U.S.-owned) qualify. Canadian firms do not.
4. A The SBIR applicant must be a **for-profit small business.**
5. B
6. D Both award types are for small businesses within the United States. The main difference is that STTR has a requirement for working with a university or a non-profit, while SBIR does not have such a requirement.
7. C The remaining 30% can be allocated flexibly (subcontractors, etc.)
8. B
9. B
10. D There is no Phase IV for SBIR/STTR projects.
11. D SBIR participation is **mandatory** for federal agencies with ≥$100M extramural R&D budget; SBA does not fund SBIR directly – it **oversees** the program.
12. D SBIR/STTR award caps are **set by SBA annually**, with occasional deviations if justified.
13. D Please see the table comparing SBIR vs. STTR.
14. C The primary purpose of SBIR is to support small businesses. Therefore, a major share of the award (at least 67%) must go to the small business.
15. D SBIR/STTR are for U.S. businesses only.