

Funding Support for Research in Science and Technology based Small Businesses

Several federal agencies provide funding support for science and technology based small business research (SBIR, STTR grants). Look for details at <http://www.sbir.gov/> At NSF, Division of Industrial Innovation & Partnerships at the Directorate of Engineering provides this funding.

Division of Industrial Innovation & Partnerships (IIP) provides funding support through **SBIR** and **STTR** Programs to promote the research needed to transform scientific discovery into a product or application for both social and economic benefit, by emphasizing private sector commercialization. For details and examples of some of the funded projects, go to <http://www.nsf.gov/eng/iip/brochures/2010.pdf>

If you have any question or need help, please contact IIP program Director responsible for your area of interest (please see below for topic area and contact information)

Click on any of the four broad topics for details and contact information for the respective program director:

- [Biological and Chemical Technologies \(BC\)](#)
- [Education Applications \(EA\)](#)
- [Electronics, Information and Communication Technologies \(EI\)](#)
- [Nanotechnology, Advanced Materials, and Manufacturing \(NM\)](#)

Broadening Participation for Greater Diversity

Diversity finds its origin in the word diverse, meaning different. Thus diversity refers to human qualities that are manifested in other individuals or groups. In today's environment of globalization, appreciating diversity and broadening participation is essential in team building and will provide better approaches to achieving goals as well as solving problems due to the differences in ideas and unique experiences of diverse people. NSF has a strong commitment to broadening participation (<http://www.nsf.gov/od/broadeningparticipation/bp.jsp>). Groups underrepresented include women, underrepresented minorities (African Americans, American Indians including Native Alaskans, Hispanics and Native Pacific Islanders), and persons with disabilities.

The Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) programs within IIP are guided by the Small Business Administration (<http://www.sba.gov/>).

Definitions – According to SBA, the definitions for socially and economically disadvantaged company and woman-owned are as follows: Socially and Economically Disadvantaged Small

Business -- A socially and economically disadvantaged small business concern is one that is at least 51 percent owned by one or more socially and economically disadvantaged individuals and whose management and daily business operations are controlled by one or more such individuals. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

Woman-Owned Small Business -- A small business concern that is at least 51 percent owned by a woman or women or in the case of any publicly owned business, at 51 percent of the stock of which is owned by women, who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

Small business plays a crucial role in job creation and economic recovery. Hence it is very important that we find ways to unleash the entrepreneurial potential of various groups in society. Research shows that entrepreneurs from women and other underrepresented minorities or socially and economically disadvantaged groups each have unique needs to advance and succeed (<http://ann.sagepub.com/content/613/1/192.citation>) while having unique strengths to contribute. While lack of capital is a problem faced by all, some of the specific needs unique to each underrepresented group or women entrepreneurs are role models, confidence boosters, mentoring, tips and tools for successfully running a small business. IIP is addressing these needs by providing examples of success stories, supporting targeted workshops, introducing new as well as supplement funding initiatives.

The following resource materials are aimed to help small businesses. The links below are intended to provide information and serve as helpful tools to potential grantees. This list is not meant to be exhaustive or to imply any special endorsement by IIP (or NSF).

Small Business Tool Kit

- I. An **IBM and Worldbank** supported website at <http://us.smetoolkit.org/us/en>

Provides resources for small business beginners.

[Most of the tool kit contents are also available in **Spanish** at <http://us.smetoolkit.org/us/es>]

The tool kit has separate links designed for :

Black-owned businesses

<http://us.smetoolkit.org/us/en/category/3192/Black-owned-Businesses>

Hispanic owned businesses

<http://us.smetoolkit.org/us/en/category/3200/Hispanic-owned-Businesses>

Native-American owned businesses

<http://us.smetoolkit.org/us/en/category/3202/Native-American-owned-Businesses>

women owned businesses

<http://us.smetoolkit.org/us/en/category/3201/Women-owned-Businesses>

Veterans owned businesses

<http://us.smetoolkit.org/us/en/category/6387/Veteran-owned-Businesses>

II. **Business start up training course** can be found at

<http://us.smetoolkit.org/us/en/content/en/243/Deciding-on-a-Business>

III. Following are some links providing **help with IT needs of small businesses**

<http://us.smetoolkit.org/us/en/category/1833/E-Commerce>

<http://us.smetoolkit.org/us/en/category/1841/Web-Design-Development>

<http://us.smetoolkit.org/us/en/category/1842/Web-Hosting>

<http://us.smetoolkit.org/us/en/category/1843/Email-Web-Marketing>

<http://us.smetoolkit.org/us/en/category/1834/Email-Messaging>

<http://us.smetoolkit.org/us/en/category/1836/Internet>

<http://us.smetoolkit.org/us/en/category/1837/Networks>

<http://us.smetoolkit.org/us/en/category/1844/Managing-IT-Projects>

<http://us.smetoolkit.org/us/en/category/1840/Telecommunications>

<http://us.smetoolkit.org/us/en/category/3324/Security>

IV. **To view broadcasts** from MIT **ENTERPRISE FORUM**, go to

<http://enterpriseforum.mit.edu/network/broadcasts/index.html>

V. **WATCH: How to Make a Strong Start in Tech** at

<http://www.blackenterprise.com/small-business/2010/05/21/watch-how-to-make-a-strong-start-in-the-technology/>

Mentoring

The mentor-protégé relationship is a concept as old as Homer's *Odyssey*. Anyone who hopes to have a successful career or business enterprise needs a mentor because the mentor is more experienced and possesses the wisdom that only experience can provide. Mentoring relationships may be formal or informal. For example many companies, institutions or organizations have programs for matching mentees (new hires) with mentors (those already established in their careers). Many professional organizations also have mentoring programs available. A mentor can become not only an advisor, but a friend and confidante. That doesn't happen instantly—building trust and personal interest takes time. The mentee sets the tone at the outset of the relationship by demonstrating his or her commitment to the process.

Tips for Finding and Working with a Mentor

Choose a mentor whose goals are similar to yours.

Find someone who is on the same career path as you are on.

Your mentor should have time to give to this relationship.

Take the initial step in establishing contact with a potential mentor since you are the one who will benefit the most from the relationship.

You must find the time to participate in the relationship with your mentor.

Entrepreneurs, particularly those with limited access to business resources, realize significant economic benefits from mentoring services.

- I. [Advance mentoring](#) offers free business mentoring
- II. [SCORE](#) which is a resource partner with the U.S. Small Business Administration offers free and confidential business advice through online and face-to-face mentoring. For details, go to http://www.score.org/how_score_works.html
- III. [Astia](#) is a global not-for-profit organization that helps women entrepreneurs in high-growth businesses providing mentoring.
- IV. To connect with a business mentor or to become a mentor for small business owners, go to <http://www.micromentor.org/mentor/about-micromentor>
- V. The Network for Teaching Entrepreneurship ([NFTE](#)) provides programs that inspire young people from low-income communities to recognize business opportunities and to plan for successful futures.
- VI. [Vistage](#) offers tips from mentors on

[How to reach out to prospects by phone](#)

[Seven steps to sales recovery](#)

[Engaging in social media](#)

- VII. [MentorNet](#) Community's web site is organized to support and foster a sense of community among participants and to provide a wider choice of options to benefit from MentorNet's programs.

The MentorNet Community offers the following opportunities for participation.

- [One-on-One Mentoring Programs](#)
- [MentorNet E-Forum](#)
- [Resources](#)
- [Résumé Database](#)

Support for Women

Women are under-represented in entrepreneurship in high-tech and other high-growth fields despite their increasing participation in science, technology, engineering and math (STEM) fields. With women representing 51% of the population in the U.S. and are more successful in U.S. colleges and universities, it is important to determine the specific needs of women entrepreneurs to help them become successful entrepreneurs in high-growth, science and technology areas.

According to recent findings ([Cohen et al., 2010](#)), while successful women and men entrepreneurs are similar in levels of education (slightly less than half earned graduate degrees), early interest in starting their own business, a strong desire to build wealth or capitalize on a business idea and access to funding, they differed in that the women (a) were motivated to start a business due to a business partner's encouragement, (b) considered past experience very important to succeed in traditionally male-dominated technical fields, (c) were more likely than men to get early funding from their business partners, and (d) valued highly the professional and personal networks and support. This highlights the importance of efforts to provide women mentoring and support networks.

- I. **Resources for Women Entrepreneurs in Science and Technology** can be found at

<http://www.westorg.org/mc/page.do?sitePageId=60664&orgId=gw>

- II. The National Association of Women Business Owners (NAWBO) provides online resources at

http://www.nawbo.org/section_29.cfm

- III. American Business Women's Association (ABWA) is another organization that is providing a network of community to women entrepreneurs.

<http://www.abwa.org/>

- IV. Astia is a global not-for-profit organization that provides mentors to women entrepreneurs in high-growth businesses at

http://astia.org/component/option.com_frontpage/Itemid,779/

Online Training and Workshops

- I. For free online courses, go to
<http://archive.sba.gov/training/index.html>
- a. To **participate in online workshops which are free**, go to
http://www.score.org/online_workshops.html
- b. Find **Small business tool kit for women** owned businesses at
<http://us.smetoolkit.org/us/en/category/3201/Women-owned-Businesses>
- c. To participate in For webinars, go to
<http://www.ncet2.org/>
- d. For additional tools, go to
http://www.score.org/business_toolbox.html
- e. For **tips on leadership development**, access Diversity Inc for women at
<http://www.diversityinc.com/content/1757/article/2/>