Know Your Funders:
A Guide to STEM Funding for Afterschool

Afterschool Alliance

The FINANCE PROJECT

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The need for competency in science, technology, engineering and math (STEM) skills is not only increasingly important for success in the workforce but also to navigate the modern world and to make decisions that will inform public policy. In response to this need and to maintain the United States' global competitiveness, the federal government as well as private philanthropies and corporations are increasingly investing in a variety of STEM education initiatives.

Informal learning settings, such as afterschool programs[1], provide excellent opportunities to get children and youth engaged and interested in STEM activities. High quality afterschool programs provide an environment for hands-on, inquiry-based learning where students can experiment with science and technology under the guidance of a supportive adult. Afterschool program evaluations have shown that participating in STEM-focused afterschool programs leads to increased interest, knowledge and skill, and in some cases improved high school graduation rates and pursuit of STEM careers among participants[2]. Research has also shown that an early interest in STEM careers is a strong predictor of who will go on to actually pursue STEM careers[3].

Studies have also shown that increased access to STEM education opportunities results in a higher likelihood of success in STEM fields[4]. Afterschool programs are an ideal vehicle to realize these outcomes.

Even though the research is clear on the benefits of exposing students to STEM activities, both within and out of school, funding can be challenging in the current fiscal environment. There are a number of possible public and private funding streams available for afterschool STEM activities, but these funding streams are often targeted to certain populations or specific activities and can be highly competitive. This guide is a tool for afterschool program leaders to navigate various funding streams and consider effective strategies to acquire funding for afterschool STEM programs.

Sources of Public Funding

The options for creating and offering compelling and engaging STEM activities in afterschool are seemingly limitless. There are equally rich opportunities for funding afterschool STEM activities. Federal, state and local governments; corporate foundations; private and family

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[1] Afterschool is defined broadly here and refers to before school, after school and summer learning programs.

[2] "STEM Learning in Afterschool: An Analysis of Impact and Outcomes." *Afterschool Alliance.* September 2011. Available at: http://www.afterschoolalliance.org/STEM-Afterschool-Outcomes.pdf

[3] Tai, R. H., Liu, Q. C., Maltese, A. V., & Fan, X. "Planning early for careers in science." *Science.* 2006. Available at: http://www.afterschoolalliance.org/documents/STEM/RHTai2006Science_PlanEarly.pdf

[4] Wai, J., Lubinski, D., Benbow, C. P., & Steiger, J. H. "Accomplishment in science technology, engineering, and mathematics (STEM) and its relation to STEM educational dose: A 25-year longitudinal study." *Journal of Educational Psychology,* 2010. Available at: http://www.afterschoolalliance.org/documents/STEM/WaiLubinskiBenbowSteiger_JEP_2010_STEMDose.pdf

foundations; and STEM funding coalitions currently provide funding for a variety of STEM activities. However, not all funding sources may be a good match for your initiative.

Federal Funding

Many federal agencies offer funding opportunities that could be used to fund afterschool STEM initiatives. Afterschool program leaders are likely familiar with accessing 21st Century Community Learning Centers, Title I, and Supplemental Educational Services funding from the Department of Education. In addition to these funding streams, a number of other federal agencies with a STEM research and development mission, such as the Department of Defense (DoD), National Aeronautics and Space Administration (NASA), National Oceanographic and Atmospheric Administration (NOAA), National Science Foundation (NSF) and the Department of Agriculture (USDA) also support STEM education initiatives, both during the school day and after school.

Funding Terminology

Formula/Block Grants: Funds are distributed to states or administrative agencies by formula (typically determined by the level of poverty in a neighborhood or community). The recipient has flexibility to design a grant competition meeting their needs.

Discretionary/Project Grants: A federal agency or office makes an award directly to a project/program or initiative. These are also known as competitive grants.

At first glance, federal funding announcements and grant applications can appear complex—and they are! Researching and understanding how federal funds are distributed is a good first step. The Office of Science and Technology Policy (OSTP) published an inventory in 2011 of all federal spending on STEM education by agency. This inventory is an excellent source to better understand the kinds of programs in which federal agencies are investing STEM education dollars. Visit individual agency websites or grants.gov[5] to learn more about federal grant opportunities and whether the grant is a *block grant* or a *discretionary grant* (see box above). Most grants supporting activities are discretionary/project grants.

For example, NASA's Summer of Innovation initiative, a discretionary grant program started in 2010, was created to spark interest in STEM learning among students through partnerships with schools and community-based organizations. In the summer of 2012, more than 200 organizations used Summer of Innovation

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[5] Grants.gov houses both a searchable database of federal funding as well as the online portal through which most federal grant applications are submitted.

Grant Research Tips

When researching a grant or potential funding opportunity, be sure to review:

- **Eligible applicant information:** Increasingly, federal grants require evidence of partnership or collaboration. If your program does not have existing STEM partners, consider spending time planning and preparing for the next application cycle. In some cases, only nonprofit agencies can apply for a grant, while in other cases only schools can be an applicant. In general, it is good practice to develop robust partnerships with a variety of community groups, organizations and educational institutions so your program can take advantage of opportunities as they arise.

- **Profiles of past programs or grantees and/or sample applications:** Often federal agencies will post profiles of grantees, and in some cases, they will post past grant applications on their website. Reviewing this type of information can help you better understand if a particular grant is a good match for the program or activity you would like to fund.

- **What the grant funds:** Federal grants tend to fund only direct costs of program implementation including teacher/leader salaries, equipment or materials needed to implement the project, evaluation of project impact, and dissemination of the project's outcomes. Federal grants come with strict requirements for reporting both program and project outcomes as well as expenditures. Check with program finance staff to ensure there is capacity to manage the reporting requirements of the grant.
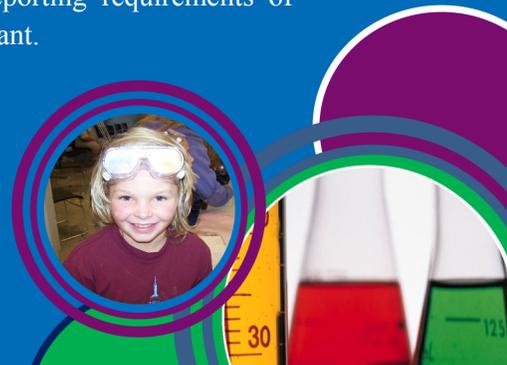
mini-grants to engage middle school students in STEM activities[6]. The NSF has also long been a supporter of informal learning, including afterschool, through a diverse variety of funding streams—examples include the [Advancing Informal STEM Learning](#) program and the [Innovative Technology Experiences for Students and Teachers](#).

Obtaining federal funding can be challenging and highly competitive, and—as discussed—most federal funding sources have strict requirements on how funds can be spent. Nevertheless, the payoff can be large. In addition to increasing the funds available to support STEM activities in afterschool, a federal grant provides validation at the national level that your program works.

State and Local Funding

States and localities also distribute funds to support STEM activities in afterschool initiatives. These funds come from a variety of sources including state general funds, tax revenue, usage fees and set-asides. Additionally, as discussed above, a number of federal grants are block or formula grants.

STEM is an area of great policy interest in many states across the country. Nearly every state has either a STEM task force or a P-16 council (that looks at education issues stretching from pre-K through college) engaged in activities to promote high-quality STEM learning opportunities. Check to see if your state has a STEM task force and review its mission and membership. Even if funding is not available through the task force, its members could serve as key partners or in advisory roles for your program.

A host of state and local agencies are also potential funders for STEM in afterschool initiatives. Many afterschool program leaders are knowledgeable about local and state school system funding opportunities, but the breadth of STEM topics lets an entrepreneurial afterschool program think outside the box to engage new partners.

Consider state and local agencies/offices in areas such as:

- Agriculture/State Cooperative Extension (4-H)
- Arts, Museums, Libraries
- Business and/or Economic Development
- Energy
- Environment
- Health/Mental Health/Prevention
- Information Technology/Technology
- Natural Resources/Forestry
- Transportation/Ports/Waterways/Marine Resources
- Wildlife/Fisheries

Even if these agencies do not offer grant funding, staff may be available to provide expert support and guidance for STEM projects and activities.

State or local grants can be less restrictive than federal grants, provided their funds are not derived from a federal block/formula grant. Consider meeting with state agency staff or grant administrators to tell them about your program and its STEM focus to get an idea of their funding priorities and timelines and to learn of a potential fit for your program. Establishing these relationships can lead to exciting future opportunities.

"Community Based Organizations need to look toward their communities for support. [They] need to talk to humans in their community, and get them excited about their programs, that strategy is more sustainable."

Tamara Hudgins,
Executive Director of GirlStart (Austin, TX)

Philanthropic and Corporate Funding

An increasing number of philanthropies and corporate funders consider high-quality afterschool programs to be a smart investment of their resources—especially if they direct funds toward improving student achievement or

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[6] The NASA press release from July 18, 2012 details the 2012 Summer of Innovation awardees and can be found at www.nasa.gov/home/hqnews/2012/jul/HQ_12-240_SoI_mini_grant.html.

improving community outcomes. Corporate funders also often have the aligned interest of growing a more qualified future workforce in their communities. These interests, along with the significant national and regional interest in STEM education and workforce issues, have created increased opportunity for afterschool programs offering STEM activities to engage new local partners in their work. Corporate and business partnerships also offer a significant source for in-kind and volunteer support, as well as event sponsorship.

To learn more about major philanthropic and foundation efforts that support STEM initiatives in afterschool, a good place to start is the Afterschool Alliance's website. In the funding section of our website, we provide links to external databases of funders interested in supporting STEM initiatives in afterschool settings as well as examples and success stories from afterschool programs across the country.

A number of afterschool newsletters, blogs and listservs feature news of funding opportunities. As with other funding opportunities, start by researching the grant and grant-making organization to understand who are eligible applicants, what sorts of activities and projects the grant supports, and to review profiles of past programs or grantees to understand if a particular grant is a good match for your organization and activities.

Philanthropic Funding

Foundations and philanthropic groups typically fund projects and initiatives as well as systems-building efforts. Foundations tend to be more flexible than federal or state agencies with their funding. For example, the American Honda Foundation supports youth STEM education initiatives that reflect the company's values of being: imaginative, creative, youthful, forward-thinking, scientific, humanistic and innovative. The Noyce Foundation has invested strategically in building state and city afterschool systems as well as research, policy and advocacy. Some other philanthropic foundations investing heavily in afterschool STEM today include the S.D. Bechtel Jr. Foundation, Samueli Foundation, Kauffman Foundation, and the Burroughs Wellcome Fund among many others.

Start by researching the grant and grant-making organization to understand who are eligible applicants, what sorts of activities and projects the grant supports, and to review profiles of past programs or grantees .

Philanthropic Funding Resources

There are several resources that provide valuable information on the best sources of philanthropic funding for STEM programs. A few key resources include:

- **Grantmakers for Education (GFE)**: GFE brings together philanthropies from across the country in collaboration to improve grant-making to education initiatives. GFE has a STEM Funders Network, an affinity group that explores best practices in grant making for STEM activities.

- **The Foundation Center:** This is a comprehensive website of philanthropy information that also provides a searchable database of funding resources. While the database requires a membership for its use, many public libraries and state nonprofit networks offer search assistance to nonprofit and community-based organizations.

- **Local Community Foundations**: Many communities across the country have a local community foundation. Typically these foundations are endowed by members of the community. The mission of community foundations is to improve the general well-being of the community, and thus funding afterschool and STEM activities are often a good match for this mission. To learn more about the community foundations serving your state and community, take a look at the Community Foundation Locator from the Council on Foundations. The locator links you directly to contact information for and websites of community foundations in your state.

- **State/Local Councils of Nonprofit Organizations:** Thirty-six states and many larger metropolitan areas have councils of nonprofit organizations that provide key services to nonprofits including information regarding grant opportunities. The National Council of Nonprofits as well as state and local councils offer both grant research and writing support among other resources. To see if your state has a council of nonprofit organizations, visit the National Council of Nonprofits' Find a Council page.

The emerging STEM Funders Network (SFN) is comprised of a diverse mix of education-focused philanthropies. The overall goal of the network is to advance STEM education by leveraging the collective voice, resources and strategies of its members. SFN's objectives are to: 1) increase STEM grantmaker knowledge and expertise; and 2) engage in high-impact projects no grantmaker could undertake alone. The network expects to undertake collaborative projects beginning in 2013, and is not accepting unsolicited proposals. For more information, contact Angie Kastning of the Teaching Institute for Excellence in STEM.

Corporate Funding

Many corporations invest in in-school and afterschool STEM initiatives. Corporations with a presence in many communities such as Best Buy, Time Warner Cable and Verizon have a history of supporting STEM and afterschool initiatives. Corporations support their communities through a variety of methods:

1. Direct giving in the form of grants and/or donations;
2. Employee-advised funds—vehicles that have been created through employee donations whose use is determined by the employees; and
3. Corporate foundations created by endowment by the company's founders and/or corporate donation of profits over time.

It is also important to be aware that corporations may have different channels for funding opportunities. Some have philanthropic foundations, while others have their giving administered through their marketing departments. It is good to be aware of the source since they may have different philosophies toward their funding strategies.

Corporate and business partnerships also offer a significant source for in-kind and volunteer support, as well as event sponsorship.

Recognizing the corporate interest and investment in education initiatives, Change the Equation (CTEq), a nonprofit, nonpartisan group formed by chief executive officers of major science and technology firms, is working to improve the quality of corporate and other

investments in STEM learning in the United States. Their *Design Principles for Effective Philanthropy* and a companion rubric are intended to guide corporate members in their philanthropic efforts to support STEM education. They have also highlighted successful programs in their *STEMworks Database* as a resource for funders and program developers alike. Through this effort, CTEq members hope to improve and increase STEM education activities. Take a look at some examples of work CTEq members are doing and funding to improve STEM learning.

The best way to learn about how these groups support STEM education and initiatives in afterschool is by first visiting the corporation's website. Typically, the website will feature information about the corporation's commitment to the communities in which they operate and announcements of recent funding awards. If this initial research demonstrates potential for partnership, contact the staff in charge of community outreach or philanthropy to discuss partnership opportunities.

Tips for Success

There are four key steps to searching for and obtaining grant dollars, regardless of the source:

1. Find relevant grant opportunities
2. Gather information and prioritize funding opportunities
3. Cultivate relationships with grant administrators and key champions
4. Write an effective proposal based on a compelling idea

1. Finding Relevant Grant Opportunities

There are a number of clearinghouses, listservs, online newsletters and membership groups that list grant opportunities. The Afterschool Alliance's STEM Funding Database is an excellent source for targeted information on grants that support STEM initiatives in afterschool settings. Our How To Find Funding section also provides some great tips on broader afterschool funding opportunities.

The main portal for federal grant applications, www.grants.gov, offers a comprehensive, searchable database of federal grant programs, where individual agencies post information about grant programs administered by their offices, including abstracts of recently funded projects.

Additional online catalogs include The Finance Project's Finding Federal Funding Database and the funding database maintained by STEMConnector™. The Change the Equation Now newsletter, STEMConnector™'s STEMdaily™ newsletter, and America's Promise Alliance e-newsletter also provide some great information on upcoming funding opportunities.

Be sure to familiarize yourself with and reach out to potential local partners including universities, museums and corporations in your area. Investing in a local community is of high priority for these institutions, and they will have a larger network you can tap into.

2. Gathering Information and Prioritizing Opportunities

Once you have identified funding sources that best match the needs of your program, gather information regarding the history of the funding stream, history of the organization's giving and engagement in STEM initiatives, and details about current and past grantees. Take a look at the abstracts of awarded proposals - for example, one place to look for projects in informal science that have been funded through NSF is the Center for Advancement of Informal Science Education's (CAISE) informal commons.

With greater understanding of the funding opportunities available, program leaders can make educated decisions about which opportunities to pursue. Consider how directly the funding source and uses align to your program's mission and activities; the program's capacity to both complete the application and meet grant reporting requirements; and perhaps most importantly, the funding calendar—will you have the money when it is most needed. A best practice is creating a fund development timeline or calendar. Many grant application periods occur at roughly the same time each year. Creating a timeline and setting up alerts can ensure that program leaders don't miss application deadlines. You could also create a spreadsheet or database to track the status of communications with each funder.

Consider how directly the funding source and uses align to your program mission and activities, and if you have the capacity to both complete the application and meet grant reporting requirements.

3. Cultivating Relationships

No matter the source of funding, afterschool program leaders should always consider grant officers and administrators as a resource. The most successful grant requests are those that a grant officer is familiar with; in other words, the grant officer knows and respects the work of the program and/or individual seeking funding or has a keen interest in the topic area. This advice is applicable to federal grant officers as well as grant officers at foundations or philanthropic groups.

Serving on a review panel for proposals is another great way to learn more about the process. Most grant officers, especially for federal grants, are always looking for capable reviewers to assess proposals that are submitted in response to solicitations. As a proposal reviewer, you will see what types of proposals fare well (and which don't) and what proposal reviewers typically look for when assessing proposals. This knowledge becomes invaluable when it is time to write your own proposal!

While funding is readily available for STEM programming, it is important to keep in mind the role that

relationships and partnerships play in sustaining funding. When applying for larger grant funding, be sure to cultivate relationships with program officers so they are kept updated on the work that you are doing. Be sure to be in touch with your statewide afterschool network, if there is one in your state, and create local community partners. This will put your afterschool program in the best position to tap into different sources of funding. Also consider cultivating relationships with members of your state's STEM task force and/or P-16 council members. These key champions can connect you to funding decision-makers and resources, and alert you of upcoming funding opportunities.

4. Writing an Effective Proposal

Identifying sources is the first step, but being able to effectively communicate why they should invest in your program is what will get you the funding. This is a skill that comes with practice and once you gain the trust of funders, you can leverage small grant awards to build your credibility to go after larger ones with the help of trusted community partners.

A grant proposal reflects your best effort to concisely describe your afterschool program, highlight its successes and explain the project for which you are seeking funding. You may want to have someone who has written proposals before either partner with you or review your outline and proposal the first few times you seek outside funding. After writing a number of grant applications and proposals, you will develop a file of compelling data and language as a resource that you can turn to again and again.

To Apply or Not to Apply?

When making the ultimate decision whether to pursue a particular funding source, program leaders should discuss the following issues:

- Does this funding source support the STEM goals of my program?
- Does the grant schedule align to my program's schedule and need for funds?
- Is the "juice worth the squeeze?"
    - How competitive is the grant?
    - Does my program have the capacity to manage the funds and the grant reporting requirements?
    - Are we prepared to apply for this grant now, or should we work to develop our program or partnerships to be more competitive in the application process in the future?

Proposal Writing Tips

- **Know the proposal requirements and deadline**—when researching new grant opportunities, make sure the STEM initiative activities fit within the funder's grant guidelines. Read the guidelines very carefully; follow the suggested or required format and always submit your application before the deadline. Also, be sure to collect all of the required addenda such as a budget or letters of support and partnerships.

- **Be clear and to the point**—almost all funder applications will have a specific objective in mind and specific word or page counts. Be sure to tailor your proposal to the funder's goals and include detailed responses to all application questions. Include a compelling introduction or project summary and a clear and concise conclusion that provides convincing rationale for funding the project. Avoid jargon or project specific language, avoid unsupported assumptions and do not assume the reviewers know the problem or program.

- **Use data and real numbers**—when possible, use specific numbers, program statistics, and measurable outcomes to show the impact of your STEM initiative. Use specific numbers to show funders exactly what funding you are requesting and why. Include a clear and realistic project timeline with clear, measurable objectives and outcomes.

- **Proofread your proposal**—carefully examine and edit the grant proposal. Consider seeking the support of other program staff or, if possible, a grant writer or technical writer. The proposal should be easily understood by any reader, regardless of their familiarity with your program or STEM initiatives. Always review your response to the application format to ensure you have answered all required questions and provided all the needed supporting documentation. Ensure there are no grammatical or spelling errors.

Final Thoughts

The information in this brief guide will get you started on finding funding for STEM programs and activities. There are many additional resources available from partners; national organizations; and federal, state, and local government websites. Finding funding begins with:

- *A Good Idea!* Develop a program or activity that has the best research and evidence you can find on effectiveness and meets the needs of the students you serve. The best ideas also fill a gap in programming or services. They also clearly articulate the goals and expected results.
- *Collecting Strong Data!* Funders like to see good data along with pictures or graphs that show trends over time in who you serve; the impact you have had to date; and how you will use the funding to improve outcomes for students, families, and the community.
- *Demonstrating Capacity to Implement Well!* Funders will be drawn by a carefully laid out plan to implement the program; but they will also want to see that you have the human and technical resources to ensure you implement the program to fidelity and that you are monitoring the progress of students and staff.

With the immense national interest in improving STEM education, there has never been a better time to find funding for a wide range of afterschool STEM projects. The tips outlined in this brief funding guide will help you get on your way!

About the Afterschool Alliance

The Afterschool Alliance is the nation's leading voice for afterschool programs. We are working to ensure that all children have access to affordable, quality afterschool programs. In an era of tight budgets, Afterschool Alliance advocacy efforts helped grow federal funding for before-school, afterschool and summer learning programs available to local communities through the 21st Century Community Learning Centers from $40 million in 1998 to more than $1.1 billion in 2011. These funds now provide quality afterschool programs to more than 1 million children during out of school hours.

The Afterschool Alliance works with the Administration, the U.S. Congress, governors, mayors and advocates across the country. Its network spans more than 26,000 afterschool programs and its communications reach 65,000 interested individuals every month. Afterschool programs keep kids safe, inspire them to learn and help working families.

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