

Science After School: Strategic Investments that Improve Quality, Build Scale and Ensure Equity

GFE Web Seminar | May 13, 2009

Including presentations by:

Ron Ottinger, Noyce Foundation

Gloria Jackson, Ewing Marion Kauffman Foundation

Lucy Friedman, The After School Corporation

Kathleen Traphagen, GFE OST Funders Network

Web Seminar presented by Grantmakers for Education
Out-of-School Time (OST) Funders Network



Goals for the Webinar



1. Provide background and context to answer the question: why consider investing in STEM expanded learning opportunities?
2. Discuss successes and challenges of current funders' efforts
3. Outline potential opportunities for investments and new and/or expanded collaborative or aligned efforts by funders.

America's Science Challenges



- *In-School Science Instructional Time is Shrinking:*
28% of 349 districts surveyed reported that they have decreased instructional time for science at the elementary level by an average of 75 minutes per week since 2002 (Center on Education Policy, February 2008 report)
- *Students Underperform on Science Assessments*
Just 29% of fourth graders reached proficiency or above on the national science assessment in 2005

Growing the Science Workforce



According to The National Science Board report *The Science and Engineering Workforce: Realizing America's Potential* (Revised November 2008)

- There is **flat or reduced US student interest in critical areas**, such as engineering and the physical and mathematical sciences; coupled with
- **Projected large increases in retirements from the S&E workforce** over the next two decades; and
- **Projected rapid growth in S&E occupations** over the next decade, at three times the rate of all occupations.

Opening the STEM Pipeline



Women, African Americans, Latinos and other racial and ethnic minorities are under-represented in STEM fields, particularly in high-level positions within STEM fields.

OST is one part of a critical framework of school, family, and community settings that is critical for students to: 1) become engaged in science, 2) develop the necessary skills and knowledge to pursue science, and 3) have access to successive levels of education, preparation, and connections to careers.

Fostering STEM engagement through OST



“Science engagement should be joyful, intellectually challenging, purposeful and coherent.”

Unique characteristics of the OST space that support high-quality STEM engagement:

- Deep explorations, more time for hands-on projects
- Teamwork in multi-age groups
- Practice in problem solving, testing theories
- Safe space to take risks in a non-high stakes environment.
- Synergy between youth development and inquiry-based approaches to science

Challenges to High-Quality STEM in OST



All the attendant challenges of the OST field:

- Developing/disseminating high quality curricula
- Building capacity of youth workers/OST group leaders
- Assessment/outcome measurement
- Reaching large numbers of young people; ensuring equitable access
- Fostering partnerships/collaborations
- Accessing sustainable funding
- Connecting with schools, parents, communities

Leading Voices from Funders



- Ron Ottinger, The Noyce Foundation

<http://www.noycefdn.org/sciencegrants.html>

- Gloria Jackson and Margo Quiriconi, Ewing Marion Kauffman Foundation

http://www.kauffman.org/education/math_engineering_technology_science.aspx?ekmensele=e4e07dfa_12_0_3572_2

- Lucy Friedman, The After School Corporation

http://www.tascorp.org/section/what_we_do/program_support/academic/science

More Resources



Coalition for Science After School

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

A Watershed Moment: The First National Conference
on Science and Technology in Out-of-School Time

<http://www.projectexploration.org/PDF/watershed-2009.pdf>