

From Meeting to Impact: *How a Funder Offered a New Path for STEM Education*

BY JENNIFER NEGRON AND SASKIA TRAILL

IN 2012, EXPANDED Schools and the Kelley Collaborative approached The Pinkerton Foundation for funding to launch a NYC STEM Education Network. Building on the work of a Noyce Foundation-supported group in New York City called the Science Alliance, the newly-established Network brought together STEM educators and leaders from a range of professional development organizations for after-school and summer STEM providers. Its original intent was to better understand the STEM professional development available for out-of-school time staff and to develop a model to deliver effective STEM training to more after-school and summer programs at community-based organizations. Together, the Network members would provide a landscape of STEM professional development; share strategies, determine gaps and identify best practices; and ultimately, create an improved model for after-school STEM throughout the city. The Pinkerton Foundation challenged the organizations to take one additional step: include at least one collaborative project that delivered on-the-ground STEM programming to a substantial number of disadvantaged young people. For its part, the Foundation offered a one-year \$25,000 grant to help get the Network underway.

The Network was originally formed with roughly 30 STEM-specific providers: STEM-rich cultural institutions; city agencies, including the Department of Education and the Department of Youth and Community Development; and youth-serving organizations that offered school-based comprehensive after-school programs. At the first meeting, The Pinkerton Foundation issued a call for true collaboration and urged the group to move quickly to develop joint proposals. Foundation staff noted that they genuinely hoped to fund at least one collaborative project and added that if they didn't, the Foundation would consider the modest grant a failure. The Foundation also directly addressed one of the group's unspoken concerns: any new projects would not interfere with – or undercut – any current Pinkerton grants to the individual organizations involved in a partnership.

In its first year, the Network members, many of whom knew each other but had not worked closely together, created a mission statement. The goal was to increase the availability of engaging STEM learning opportunities in after-school

programs. The members identified their individual strengths in after-school STEM programming and designed a survey to assess the landscape of afterschool and summer STEM programming in New York City. Based on the survey results and needs identified in Network meetings, the members proposed several areas of collaboration and considered how to turn those ideas into fundable projects. Pinkerton's program officer, who is a participant in the Network, outlined the Foundation's only constraints: The proposals had to be consistent with the Foundation's overall guidelines; include organizations with clear missions, accountable leadership and caring, well-trained staff; include hands-on learning, creative role models and career exploration; and offer engaging activities that supported the development of critical thinking, creativity, persistence and resilience.

While multiple possibilities were discussed, members were asked to refine the ideas to propose ways that their organizations might provide collaborative support. Eventually the group focused on two promising models – the STEM Educators Academy, a program partnering formal and informal educators, and Taking Root: Strengthening STEM, a capacity-building effort.

For each, a Network member agreed to serve as the lead organization. In both cases, they were experienced intermediaries, accustomed to supporting the larger field and working with many partners. Other partner roles gradually took shape for science-rich institutions, city agencies and community-based organizations operating comprehensive after-school programs. Budgets were negotiated based on roles and responsibilities. The final proposals were presented to The Pinkerton Foundation board in May of 2013, and both were approved for funding. A three-year grant of \$455,000 was awarded to the Partnership for After School Education for Taking Root: Strengthening STEM and a one year grant of \$230,000 was awarded to ExpandedEd Schools for STEM Educators Academy. As of September 2016, Pinkerton has invested six hundred thousand dollars in Taking Root: Strengthening STEM and \$1.6 million in the STEM Educators Academy.

Taking Root: Strengthening STEM in Afterschool (Strengthening STEM) was designed to dramatically expand the capacity of after-school agencies to provide STEM pro-

gramming. Strengthening STEM is led by the Partnership for After School Education (PASE), an organization formed in 1993 to professionalize the after-school community by helping youth-serving professionals deliver consistent, high-quality programming in New York City. PASE identified after-school STEM experts from the Network to help lead the training and support. The program's goal is to build a critical mass of STEM educators – Master Trainers – in order to create programs able to withstand the high level of staff turnover in the after-school field. Full-time educators or education directors at their organizations, the Master Trainers, attend training and receive individualized support from the STEM experts and learn how to identify resources, choose high-quality STEM curricula and support staff in facilitating engaging STEM activities. More than fulfilling Pinkerton's goal of providing immediate service to young people, 3,400 students have participated in meaningful and continuous STEM programming as part of their regular after-school experience.

The STEM Educators Academy is led by Expanded Schools, a nonprofit dedicated to closing the learning gap by increasing access to enriched education experiences. In partnership with the New York Hall of Science, The Institute of Play and the Intrepid, Sea, Air and Space Museum, this innovative model pairs one classroom teacher and two after-school community educators in a co-teaching team. Together, the teams attend professional development at one of the three aforementioned cultural partner sites, and create and teach hands-on after-school STEM curricula that forge a strong and lasting link between what students learn during the day and what they explore after school. Participating teachers report that working with the cultural partners has been the most action-oriented and engaging professional development they have ever had, and community organizations report that it has helped them create real relationships with science teachers. Most important, school leaders say they have seen improvement in academic results and their school cultures – with the classroom teachers involved in the project leading professional development for other teachers at the schools. The Academy currently serves over 1,500 students in 23 schools with 25 educator teams. More information on the promising findings can be found in the STEM Educators Academy Research Brief.

The impact of the STEM Educators Academy is growing. Expanded Schools, in collaboration with the New York Hall of Science, was recently awarded a highly competitive \$2.4 million Investing in Innovation (i3) grant from the US Department of Education. The grant supports a formal three-year evaluation of the STEM Academy.

While the Network was originally intended to convene for one year, it is now in its fourth year and continues to grow. The Overdeck Family Foundation has joined with Pinkerton as a funding partner, bringing its ideas and expertise to the table. Additionally, the NYC STEM Education Network joined the National STEM Ecosystem Learning Community (a national initiative designed to cultivate cross-sector partnerships to provide a rich array of STEM learning opportunities for youth). The national effort

has encouraged the New York City Network to include a broader range of members and create formal structures that continue to facilitate collaboration and improved outcomes. Over the next year, the Network plans to formalize its membership and create an asset map of STEM learning opportunities for young people PreK to 12 in New York City.

Lessons for Grantmakers

THE PINKERTON FOUNDATION'S original investment of \$25,000 in the NYC STEM Education Network has led to large public and private investments in the member organizations as well as long-lasting relationships between cultural institutions, educators and youth-serving non-profit organizations. This includes the Foundation's grants totaling \$1.6 million and \$600,000 to fund the STEM Educators Academy and Strengthening STEM, respectively, and \$200,000 for the continuation of the NYC STEM Education Network, now in its fifth year. By describing this multi-year process in stimulating cross-sector collaboration, the lessons we have learned might offer strategic direction to other grantmakers interested in seeding partnerships and strengthening outcomes, not only in STEM, but in a variety of learning areas. There are four lessons we think are applicable to other funders' efforts.

1. This was a multi-year process. The two grants took a full 18 months to be developed. Maintaining Foundation patience and commitment driving the process was critical while Network members discussed needs in the field and potential solutions. **Good ideas take time to grow.**
2. The Foundation did not prescribe the nature of the partnerships that were formed and did not limit funding to individual organizations. Each organization would continue to receive funding individually for its own respective programs. This allowed members to feel comfortable and confident in collaborating, knowing their own programs were not held hostage by others in the initiative. The only stipulation was that the final project had to conform to Foundation grant guidelines to have a chance for board approval. **The process of choosing partners cannot be forced.**
3. While Foundation representatives attended every meeting, they sat at the side of the room. When discussions faltered, the Foundation representatives occasionally stepped in to offer strategic direction or to shape ideas, but largely waited for members to resolve issues on their own. That process led to better buy-in and stronger, more authentic connections. An occasional reminder by the Foundation staff of the goals of the Network were useful to stay on point. **The funder should not dominate the discussion.**
4. The Foundation has helped leverage the investments to grow the Network's work by not "owning" the initiative and by sharing the efforts. The Foundation left ample room for other funders to join the effort, which happily they have done. The interest in formal and informal collaborations

to strengthen STEM learning in and out of school has led many funders to consider support for the Network, and offer opportunities for projects that are outside The Pinkerton Foundation's guidelines. We hope this continued partnership at the funder level will continue to pave the way for future collaboration between formal and informal education sectors that lead to stronger, more vibrant programming to help all young people develop the skills, self-reliance and strong values necessary to live up to their full potential. **Sharing ownership, sharing ideas and sharing investment responsibilities often leads to shared success.**

ABOUT US

The Pinkerton Foundation

THE PINKERTON FOUNDATION is an independent grantmaking organization established in 1966 by Robert Allan Pinkerton, the Chairman and CEO of Pinkerton's, Inc., then the nation's oldest and largest security company. The Foundation, which retains no ties to the firm, supports community-based programs for children, youth and families in economically disadvantaged areas in New York City. Although we consider a wide range of youth development initiatives, Pinkerton favors direct-service programs that have one overriding goal: to help young people reach their full potential. With that in mind, the Foundation looks for groups with capable leadership, high expectations, well-defined goals and active, engaged participants. Most of the programs we support take place in the after-school, weekend or summer hours and focus on providing opportunities for academic development, career readiness and cultural enrichment. We also support a number of programs that offer a way forward for young people after an encounter with the criminal justice system or years in foster care.

ExpandedED Schools

FOR NEARLY TWO DECADES, ExpandedED Schools has created opportunities for students to immerse themselves in science, technology, engineering and math (STEM), along with the arts, sports and other character-building activities, in an effort to close the learning gap and ensure equity of access to enriched education experiences. These activities enable children to develop problem-solving, teamwork and critical-thinking skills and to explore other aspects of scientific practice and engineering design. As its name suggests, ExpandedED Schools focuses on enhanced programming throughout the learning day, both in school and after the traditional school day ends. To expand into the afternoons, ExpandedED Schools has promoted partnerships between schools and youth-serving community organizations as a way to strengthen STEM. Thanks to these and other efforts, there has been an explosion of STEM in after-school and expanded learning programs over the last decade – to the point that in New York City nearly 92% percent of after-school site directors reported offering STEM.

NYC STEM Education Network Members

American Museum of Natural History
BEAM Center
Biobus
Code/Interactive
Children's Aid Society
City Parks Foundation
City Science
Common Sense Education
Cornell University Cooperative Extension
CSNYC
Educational Equity Center at FHI 360
ExpandedED Schools
Fresh Youth Initiatives
Genspace
Girl Scouts of Greater New York
Girls Who Code
Grand Street Settlement
Harlem Biospace
HIVE NYC Learning Network
Hudson River Community Sailing
Hunter FUSE Program
Intrepid Sea, Air & Space Museum
Kelley Collaborative
Mentor New York
Mentoring in Medicine
MOUSE
Museum of the Moving Image
New York Academy of Sciences
The New York Community Trust
New York Hall of Science
New York Public Library
NYC Citizen Schools
NYC Department of Design and Construction
NYC Department of Education
NYC Department of Youth and Community Development (DYCD)
NYU Polytechnic Institute
Overdeck Family Foundation
Pace University
Partnership for After School Education (PASE)
The Peter and Carmen Lucia Buck Foundation
The Pinkerton Foundation
Reach the World
Rocking the Boat
ScriptEd
Solon Summerfield Foundation
St. Nick's Alliance
STEM From Dance
WHEDco
Wildlife Conservation Society



For more information, please contact:
Jennifer Negron, program officer,
The Pinkerton Foundation
jnegron@pinkertonfdn.org
212-332-3385

Saskia Traill, Senior Vice President of policy & research,
ExpandedED Schools
strail@expandedschools.org
646-943-8757

©2016 By ExpandedED Schools and The Pinkerton Foundation. Copy, disseminate or otherwise use information in this publication with permission and appropriate acknowledgement. All rights reserved.