NY STEAM Collaboration Forum, Capital Region 11.12.14
National Girls Collaborative Project

The National Girls Collaborative Project (NGCP) brings together organizations that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).

www.ngcproject.org
Project Impact

• **15.4 million** visits to the NGCP website
• **3,387** programs are listed in the online NGCP Program Directory
• **27,579** participants served in **241** mini-grants completing activities
• **18,434** practitioners have been served through events and webinars
• **8.35 million girls** are served indirectly by NGCP by having their leaders trained in the philosophy, knowledge, and methods of NGCP (**4.8 million Boys served too!**)
NY STEAM

- Identified many organizations trying to achieve same/similar goals
  - Leadership Team (worker bees)
  - Champions Board
  - All volunteers!
- So far:
  - Monthly newsletter, social media
  - Information Meeting, September 2013
  - Kickoff Conference, October 2014
Why New York?

- 89% of projected job openings could be filled by computing degrees.
- Even during economic downtimes in NY, demand is still high for STEM jobs.
  - 1.7 STEM jobs for every unemployed person
  - 3.6 people for every non-STEM job

Sources: NCWIT EdJobsMap
Change the equation, Vital Signs: New York
NGCP Goals: Maximize Access to Shared Resources

Building a Network Through Collaboration

**Girl Scout Council**
Wants to host STEM program for girls but their facilities are booked and they are looking for exciting hands-on activities.

**NEED:** Facility, exciting hands-on activities, role models to deliver activities

**RESOURCE:** Access to girls

**Science Museum**
Looking for ways to attract more Latino, African American, and American Indian visitors.

**NEED:** Access to girls, particularly under-represented girls

**RESOURCE:** Facility, exciting hands-on activities

**University**
A college chapter female engineering students wants to get involved in bringing more girls into the profession.

**NEED:** Access to girls, exciting hands-on activities

**RESOURCE:** Role models to inspire girls

**Girls Inc.**
An afterschool program for middle school girls needs ideas for how to offer motivating and engaging STEM experiences.

**NEED:** Exciting hands-on activities, role models

**RESOURCE:** Transportation to the event

During NanoDays (week-long celebration of nanotechnology), the science museum hosted a STEM Expo and lunch with role models and engineering students for an audience of 100 Latina mothers and daughters from local Girl Scout troops and Girls Inc. members. Activities from SciGirls and NISE Network (nanotech) engaged girls in hands-on activities, introduced girls and their mothers to local STEM role models, and informed mothers about the educational pipeline for STEM opportunities for their daughters.
NGCP Goals: Strengthening Capacity with Exemplary Practices
Speed Networking
Speed Networking

- Your Name
- Your Organization/Program & Role
- Resources *(what do you have to share?)*
- Needs *(what do you need to meet your goals?)*
- 2 Minutes Each
- Bring your business card to exchange
- You will need a pen to write down great ideas!
Why is Collaboration Important?

High levels of collaboration among educators and programs engaging girls in STEM increases the efficiency and effectiveness and overall capacity of programs and therefore increases opportunities and improves experiences for girls in STEM.
Increased Collaboration Benefits
Girl-Serving STEM Programs

- Helped my program be more effective: 91%
- Reduced feelings of organizational isolation: 88%
- Helped my program be more efficient: 85%
- Improved my program’s sustainability: 82%

Source: NGCP 2013 Annual Survey
Defining Collaboration

“The process of achieving a goal that could not be attained efficiently by an individual or organization acting alone”

Why Collaborate?

- Many uncoordinated services to girls interested in STEM
- Reduces isolation among professionals
- Strengthens relationships among organizations
- Increase potential for organizational and individual learning by sharing promising practices
- Relationships increase access to scarce resources
- Increases capacity to provide more effective opportunities
- Organizations have a better ability to achieve outcomes
Ways of Working Together

- Networking
- Cooperation
- Coordination
- Coalition
- Collaboration
## Collaboration Rubric

<table>
<thead>
<tr>
<th>Networking (1)</th>
<th>Cooperation (2)</th>
<th>Coordination (3)</th>
<th>Coalition (4)</th>
<th>Collaboration (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware of organization</td>
<td>Provide information to each other</td>
<td>Share information</td>
<td>Share ideas</td>
<td>Members belong to one system</td>
</tr>
<tr>
<td>Loosely defined roles</td>
<td>Somewhat defined roles</td>
<td>Share resources</td>
<td>Share resources</td>
<td>Frequent communication characterized by mutual trust</td>
</tr>
<tr>
<td>Little communication</td>
<td>Formal communication</td>
<td>Defined roles</td>
<td>Frequent and prioritized communication</td>
<td>Consensus is reached on all decisions</td>
</tr>
<tr>
<td>All decisions are made independently</td>
<td>All decisions are made independently</td>
<td>Frequent communication</td>
<td>All members have a vote in decision making</td>
<td>(Hogue, 1993; Borden &amp; Perkins, 1998, 1999; Frey, 2004)</td>
</tr>
</tbody>
</table>
Challenges to Collaboration

- May actually take more time, at least in the beginning
- Belief that individual effort is more beneficial, easier than cooperation
- Lack of trust between partners
- Lack of strong, effective leadership
- Different types of organizations often work differently
- Organizational systems do not encourage or support collaboration
How Do You Choose?

- What do we want to accomplish?
- What resources do we need? What resources do we have to share?
- Do we have sufficient trust/commitment to support the relationship? If the relationship is new, do we have the time/commitment to foster the relationship?
- Search the NGCP Program Directory
Potential Collaborators

- K-12 teachers
- K-12 counselors
- Higher education faculty
- Higher education academic counselors
- Higher education STEM program
- K-12 after school STEM program
- K-12 school day STEM program
- American Associate of University Women Branch
- Corporate or business partners
- Non-profit organizations (Boys and Girls Clubs, 4-H)
- Girl Scout Councils
- STEM professionals
- Professional organizations
- Applied researchers

CHECK the NGCP PROGRAM DIRECTORY!
Best Practices in Successful Collaborations

1) Prepare
2) Look
3) Plan
4) Build
Prepare to Collaborate

• **Reflect** on past collaborations and the characteristics of successful or ineffective collaborations.

• Create a **quick summary** of your program services you can easily share when you first meet potential collaborators.
Prepare to Collaborate

• Identify your program/institutional strengths and challenges.
• Identify the program/institutional resources you have to offer.
• Identify your program/institutional needs.
Look for Collaborators

• Find the “home” of your audience who can benefit from your research findings/program products and services.
• Identify assistance or guides that can help you.
• Network with purpose.
Plan for a Successful Collaboration

• Be flexible and patient.
• Be explicit about project benefits for each partner.
• Create a collaboration agreement.
Build a Successful Collaborative Project

• Communicate frequently to move the work forward.
• Adapt as project personnel, plans, and needs change.
• Celebrate successes
• Debrief the collaboration.
Voices from the Field: Partnership Stories
Voices From The Field

• “NGCP has provided opportunities and resources to encourage and support collaboration. The meetings, grants, and educational forums have all provided me with personal opportunities to connect with people I would not have met otherwise.”

• “Having a large network gives each local organization or program more leverage, so the more we collaborate and present our ideas as one entity, the more students benefit.”
Collaboration Mashup
NGCP Mini-Grant Overview
NGCP Mini-Grants

NGCP Mini-grants are awarded to girl-serving science, technology, engineering, and mathematics (STEM) programs to support collaboration, address gaps and overlaps in service, and share exemplary practices.
Who Can Apply?

- At least two programs from different organizations must collaborate together
- All programs/organizations must be registered in the Program Directory
- The lead program must be located in the Collaborative region currently offering mini-grant funding
Mini-Grant Project Design

Preference is given to projects that include:

- Innovative project designs
- New program collaborations
- Use of exemplary practices
- Evaluation methods

Projects must last longer than offering a one day event.
Mini-Grant Funding

- Small amount of seed funding
- Not intended to fully fund entire projects
- Maximum amount is $1000
- Matching funds and in-kind resources from other organizations are encouraged
Mini-Grant Expenditures

**Allowable**
- Food (ex. lunches)
- Transportation costs (ex. buses)
- Educational software and hardware (ex. robotics)
- Essential project/activity supplies

**Not Allowable**
- Alcoholic beverages
- Indirect charges/administrative overhead
- Capital expenditures
- Computer hardware (ex. laptops, tablets)
Mini-Grant Awards

- Collaboratives establish the mini-grant timeline for their regions
- Collaborative teams review applications after the mini-grant application round closes
- Mini-grant awardees receive notification approximately 30-60 days after the mini-grant application close date
How to Apply

• Apply on the NGCP website
• Must have a registered program in an active Collaborative region to access the application
• Approximately 35-40 minutes to complete the application

www.ngcproject.org/minigrants
Mini-Grant Application

Resources

Online resources include:

• HowTo Instructions and Video Tutorial
• Exemplary Practices, Project ideas, and Measurable Objectives
• Sample Application
• Mini-Grant Rubric used by reviewers
• Evaluation Requirements and Reporting Form
• Mini-grants FAQ

More information at

www.ngcproject.org/mini-grants
After Application Approval

Mini-grantees will:

• Be issued a Funding Agreement from NGCP
• Receive the check by mail within 30 days of signing the Agreement
• Implement the project by the end date specified on the Agreement
• Participate in NGCP evaluation activities
• Present at the annual Collaboration Conference (2016)
New York STEAM Girls Collaborative

The New York STEAM Girls Collaborative brings together organizations throughout New York that are committed to informing and motivating girls to pursue careers in science, technology, engineering, and mathematics (STEM).

Too often programs that serve girls in STEM are limited in service and impact due to size, location, funding, expertise, and equipment. In other cases, projects compete with each other, duplicating services and seeking the same resources. New York STEAM Girls Collaborative provides the opportunity for programs to increase their ability to maintain interest and participation of girls in STEM within New York through collaboration.

New York STEAM Girls Collaborative is based upon a model developed by the National Girls Collaborative Project, and replicated through a grant from the National Science Foundation. Project activities are designed to facilitate connections between organizations to maximize access to shared resources. Collaboration, as an interactive process, enables professionals across projects and communities to generate and carry out creative solutions and strategies that maximize benefit beyond what one project or community could accomplish. The model is structured to bring organizations together to leverage resources, share information and exemplary practices, and to plan strategically to expand STEM-related opportunities for girls.

Collaborative activities are facilitated with the support of a Collaborative Leadership Team and Champions Board. Information on the Collaborative Leadership Team and Champions Board members can be found on the following web pages.
New York STEAM Girls Collaborative

Events in New York STEAM Girls Collaborative

The Collaborative will host a variety of events for STEM practitioners including: girl-serving organizations, K-12 formal and informal educators, higher education faculty, industry and business leaders, and government.

The Collaborative's Kick-Off Conference is followed by programs' entering their information into the NGCP online Program Directory and collaborating to apply for mini-grant awards after attending the Collaboration Forum. The Collaboration Forum shares strategies for successful partnerships and provides planning time for collaborative mini-grant projects.

Collaboratives host two Professional Development Forums that also provide exemplary practices and strategies, highlight local programs and resources, and continue the valuable networking experience.

Once mini-grants are complete, the Collaborative will hold a Collaboration Conference. At this conference, grantees will have an opportunity to present their projects to a large group. Collaborative successes are shared and additional networking and professional development activities are offered at this event. For information on Collaborative events, visit the NGCP events schedule.

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Date</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>NY STEAM Collaboration/Professional Development Forum</td>
<td>The NY STEAM Girls Collaboration is happy to host...</td>
<td>November 12, 2014</td>
<td>Forum Event</td>
</tr>
<tr>
<td>NY STEAM Kick Off Conference</td>
<td>The University at Albany/College of Computing and...</td>
<td>October 25, 2014</td>
<td>Conference</td>
</tr>
<tr>
<td>New York State Girls Collaborative Project Information Meeting</td>
<td>Program managers, guidance counselors, business ...</td>
<td>September 20, 2013</td>
<td>Forum Event</td>
</tr>
</tbody>
</table>
The Program Directory lists organizations and programs that focus on motivating girls to pursue careers in science, technology, engineering and mathematics (STEM). The purpose of this Directory is to help organizations and individuals network, share resources, and collaborate on STEM-related projects for girls.

The Directory contains Program descriptions, resources available within each organization, Program and/or organization needs, and contact information. Submitted entries undergo review and verification prior to publication.

<table>
<thead>
<tr>
<th>Program title</th>
<th>City</th>
<th>State</th>
<th>ZIP Code</th>
<th>Organization Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAUW NYC</td>
<td>New York</td>
<td>New York</td>
<td>10016</td>
<td>American Association of University Women, New York City Branch</td>
</tr>
<tr>
<td>After School Science Club</td>
<td>Corona</td>
<td>New York</td>
<td>11368</td>
<td>New York Hall of Science</td>
</tr>
<tr>
<td>ArchForKids</td>
<td>architecture for children</td>
<td>Dobbs Ferry</td>
<td>New York</td>
<td>10522</td>
</tr>
<tr>
<td>BirdSleuth</td>
<td>Ithaca</td>
<td>New York</td>
<td>14850</td>
<td>Cornell Lab of Ornithology</td>
</tr>
<tr>
<td>Buggy-Botics</td>
<td>Brooklyn</td>
<td>New York</td>
<td>11209</td>
<td>Visitation Academy</td>
</tr>
<tr>
<td>Byron Academy</td>
<td>STEM Program for Girls</td>
<td>New York</td>
<td>New York</td>
<td>10022</td>
</tr>
</tbody>
</table>
Resources

Application Resources

Mini-Grant Application Requirements:

- At least two programs from different organizations must collaborate on the mini-grant project.
- All programs/organizations collaborating on the mini-grant must be registered in the Program Directory.
- The applicant must choose one of her/his programs to be the lead program.
- The lead program must be located in a collaborative state or region currently offering mini-grants.
- Preference is given to projects that are innovative and include a collaboration between organizations that has not occurred before.
- Mini-grant projects must last longer than one day, unless the one-day project is part of a larger event (e.g. a one-day STEM conference for middle school girls that is included within a week-long summer camp).

Mini-Grant Online System Help:

- Sample Application
- Step by step guide on "How To Apply for a NGCP Mini-Grant"
- Mini-Grants FAQ
- Contact your Collaborative's Mini-Grant Lead

Mini-Grant Application Resources:
NY STEAM Mini-Grants

Open Date: December 3, 2014
Close Date: January 21, 2015
Decision Date: March 3, 2015

For more information about NY STEAM mini-grants, please contact

Stephanie Lemnios
nysteam4girls@gmail.com
Mini-Grant Questions?
NY STEAM Resources

• Co-leads: Jennifer Goodall or Stephanie Lemnios: nysteam4girls@gmail.com

• Facebook: https://www.facebook.com/NYGCP

• Website: http://www.ngcproject.org/collaborative/new-york-steam-girls-collaborative

• Twitter: https://twitter.com/NYSTEAM4girls

• LinkedIn: https://www.linkedin.com/groups/NY-STEAM-Girls-Collaborative-Project

• E-newsletter: http://goo.gl/E7qTnS