



# National Girls Collaborative Project Evaluation Highlights

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### Project Description

The National Girls Collaborative Project (NGCP), a National Science Foundation-funded project, brings together organizations throughout the United States committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).

NGCP works to maximize access to shared resources; strengthen the capacity of programs by sharing exemplary practices to engage girls in STEM; and to use the leverage of a network to create the tipping point for gender equity in STEM.

NGCP has an established network of **28 Collaboratives serving 38 states**. Through regional and national efforts, NGCP has reached a large number of girl-serving STEM programs across the United States through an **online Program Directory, in-person events** such as Kick-off and Collaboration conferences, Professional Development and Collaboration forums, and **webinars**.

The evaluation of NGCP, conducted by Evaluation & Research Associates (ERA), collects and reports quantitative and qualitative data to inform the project on an ongoing basis and to measure progress toward its goals. This summary presents highlights from the evaluation findings and is based on data collected between January 2006 and January 2013.

*"...the more people you can get involved, the better you are. I am a big proponent of collaboration because you open so many doors to different people and things that you did not think of before. It's an exciting, dynamic process."*

— Mini-grant Project Lead

### Reach of the NGCP

- **28** Collaboratives serving **38** states
- **2,809** entries listed in the online NGCP Program Directory
- **24,758** educators represented by programs in the NGCP Program Directory
- **11,475,528** youth served by programs in the NGCP Program Directory, including 6,887,675 girls
- **8,480** unique visitors per month, on average, to the NGCP website
- **24,484** subscribers to the NGCP e-newsletter
- **1,813** total participants (50 participants, on average) to 36 live NGCP webinars
- **5,607** total event attendees to 112 in-person NGCP Conferences and Forums hosted by local Collaboratives
- **17,030** girls served in 214 NGCP mini-grants completing activities

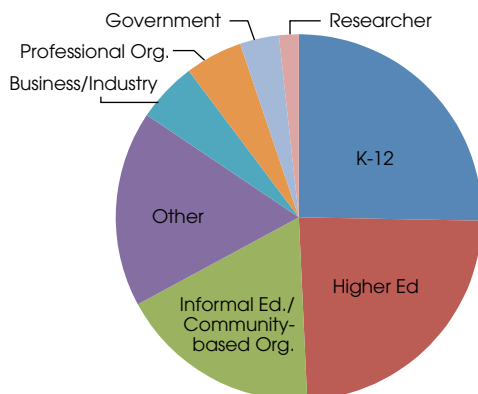
*Numbers as of January 2013*

## NGCP Increases Collaboration and Sharing of Resources to Engage Girls in STEM

NGCP enables participating programs to share resources, provides opportunities to interact with other programs, and encourages collaboration through project components such as events, the searchable online Program Directory where programs specify their needs and resources, and mini-grants awarded to two or more organizations partnering on a new project. The premise of NGCP is that higher levels of collaboration and sharing of resources among the girl-serving STEM community should increase the efficiency, effectiveness and overall capacity of programs serving girls, and therefore improve opportunities and experiences for girls in STEM.

There is evidence that collaboration benefits programs: respondents to the 2012 Annual Survey with moderate or highly increased levels of collaboration due to NGCP indicated their **programs were more effective** (63% of respondents); the **capacity of their programs was strengthened** (50%); they had **reduced feelings of organizational isolation** (43%); and they were **better able to recruit girls** (38%).

### Who is attending NGCP in-person events?



*"After being involved with the NGCP, I would never again think of running a program without some form of collaboration with another business or organization."*

— NGCP Annual Survey Respondent

## Meeting or learning of new people or organizations that could be partners was identified as the most likely factor to increase levels of collaboration

Annual Survey respondents connected with an average of 7 new people through NGCP. This average was greater for NGCP participants who received mini-grants (20 people) or attended NGCP events (10 people).

Respondents were most likely to connect with representatives from informal education, K-12 teachers, higher education faculty/staff, and professional organizations through NGCP.

*"It (NGCP) fills a critical need in the ecosystem of involving girls in STEM. Without it, there is no mechanism for connecting those who do this work across a broad reach of organizations, higher ed, K-12, and industry."* 2012 Annual Survey Respondent

Seventy-seven percent of those attending an event or receiving a mini-grant indicated that NGCP increased their interest in sharing their resources and 83% indicated that NGCP increased their interest in collaborating with another program or organization. In addition, 58% of all Annual Survey respondents and 75% of event attendees and mini-grant participants indicated that participating in NGCP increased their levels of collaboration with other programs.

**Seventy-one percent of those attending an NGCP event followed up with somebody they met at the event.** Most commonly, they were following up to discuss ideas for collaboration or to share resources. Attendees specified the most valuable aspects of events to be networking and meeting others from their geographic area involved in similar work. Annual Survey results consistently show that **those who attended at least one in-person NGCP event or received a mini-grant had significantly higher interest in collaborating, more knowledge on how to collaborate effectively, and higher mean levels of collaboration with other STEM-related groups.**

The NGCP Program Directory is an online tool for collaboration that enables programs to find other organizations, programs, and individuals supporting girls in STEM and the resources available to share. A 2012 NGCP Annual Survey respondent wrote, *"(Through the NGCP Program Directory), I met other similar organizations and have shared information about projects, ideas, and how to get girls interested in STEM."* Respondents who found a shared resource through the Program Directory indicated it helped their work be more effective (64%); strengthened their program's capacity (37%); and helped their work be more efficient (34%).

**Mini-grant recipients are very likely to continue their mini-grant project after the grant** (77% of 214 projects) **and to extend their collaboration to other activities** (73%). Effective collaborations utilized the strengths of both partners and most partners planned activities together and shared resources, participants, and/or locations. The mini-grant collaborations were considered effective overall, with 92% of respondents indicating the two highest ratings of success (on a five-point scale).

When asked about the value of NGCP, participants most commonly referenced the networking and collaboration opportunities and the resulting benefits to themselves and their programs.

Mini-grants are a small amount of seed funding awarded to at least two programs working together on a new project to engage girls in STEM. They are designed to encourage collaboration, address gaps and overlaps in service, and support the use of exemplary practices.

Mini-grants impact programs, practitioners, and girls. *"We very much enjoyed the opportunity to collaborate with several professional women in our community ... The girls we reached through this program indicated an increased awareness and interest in a variety of STEM careers and came away with a better understanding of some of the educational requirements needed to pursue these vocations. They were exposed to several local colleges and the programs available to them in the future."* Mini-grant Recipient

## How NGCP Increases Collaboration

### NGCP increases **AWARENESS** of programs and organizations involved in STEM.

Those participating in NGCP through the e-newsletter, events, and/or webinars had significantly higher levels of knowledge of programs and of shared resources available and rated the impact of NGCP on their knowledge of STEM programs or organizations significantly more highly. Eighty-three percent of event attendees and mini-grant recipients indicated NGCP had increased their knowledge of STEM programs.

### NGCP increases **INTEREST AND SKILLS** in collaborating.

About 70% of Annual Survey respondents indicated that NGCP increased their interest in collaborating. The ratings were significantly higher for those who had participated in an NGCP event, webinar, or received a mini-grant. These NGCP participants were also significantly more likely to have higher ratings of their knowledge of strategies to effectively collaborate and to indicate that NGCP increased their knowledge on how to collaborate.

### NGCP **CONNECTS** those interested in engaging girls in STEM with each other.

The overall mean number of new connections made through NGCP by Annual Survey respondents was 7.0 (the mean for mini-grantees was much higher, with 20 new connections made through NGCP). Eighty-three percent of NGCP event attendees left an event with an idea for a collaborative partner or project and 90% agreed they met somebody with whom they could collaborate at the event.

### NGCP increases levels of **COLLABORATION**.

Respondents who attended at least one NGCP event and/or received a mini-grant had a significantly higher mean level of collaboration compared with the other respondents. Additionally, those who attended an NGCP event, webinar, or received a mini-grant rated the impact of the project on their collaboration significantly higher. About 60% of Annual Survey respondents indicate NGCP increased their level of collaboration.

### Increased collaboration **IMPROVES PRACTITIONERS' WORK**.

Annual Survey respondents indicating NGCP had a moderate or high impact on their collaboration indicated that, because of increased collaboration, their program was more effective (63%); the capacity of their program was strengthened (50%); they had reduced feelings of organizational isolation (43%); and they were better able to recruit girls (38%).

## NGCP Builds Practitioner Knowledge of Effective Strategies to Engage Girls in STEM

Exemplary practices are strategies, practices, curricula, and resources with research and/or evaluation data to support their effectiveness. NGCP disseminates exemplary practices to girl-serving STEM practitioners via the website, e-newsletter, webinars, and Collaborative events. Areas of focus include engaging girls in STEM, evaluation and assessment, and collaboration.

The exemplary practices help build the capacity of girl-serving organizations, education, and industry to provide high-quality opportunities for girls in STEM, create effective collaborations, and to effectively evaluate and assess their efforts.



The dissemination modes used by NGCP to share exemplary practices have been consistently rated as relevant and useful. Eighty percent of Annual Survey respondents rated the quality of the e-newsletter as Good (4) or Excellent (5); NGCP webinars received praise for the convenient format and for the opportunity to remain current about research; and event attendees that practices and strategies shared at NGCP events were useful. **Fifty-five percent of webinar attendees indicated they applied what they learned to their own work**, including collaboration practices, efforts to engage Latinas, and evaluation and assessment strategies and resources.

Mini-grants utilize exemplary practices in their activities to ensure they effectively engage girls in STEM. One mini-grant recipient wrote, *"The grant we received was less than \$1,000. The impact it made was priceless. It may have greatly changed the lives of these little girls. **They (the mini-grant participants) have decided that science and engineering are interesting, fun, exciting, and for girls.**"*

Overall, Annual Survey respondents indicated high levels of impact of NGCP in increasing their knowledge of exemplary practices related to serving girls in STEM, with 42% specifying Moderately (3) or Greatly (4) on a 4-point scale. Ratings were significantly higher for those attending an event, webinar, or receiving a mini-grant. **Seventy-three percent of those applying an exemplary practice from NGCP felt their work or programs were more effective, 42% felt their program's capacity was strengthened, 34% felt their work was more efficient, and 33% felt the practices helped them recruit girls to their program.** One respondent wrote, *"(Because of NGCP,) I feel empowered with techniques and resources to design, organize, and execute a sustainable program knowing that I am using best practices."*



*"The use of informal learning resources provided by the NGCP resources has allowed my program to meet the needs of diverse learners by better understanding the barriers to STEM."*

— 2011 Annual Survey Respondent



*"NGCP's model of building on existing programs to connect, expand and sustain gender equity in STEM is exemplary. The local, national and regional approach are making a huge impact in increasing visibility, programs and resources around this issue and ensuring that it remains a high priority on the policy agenda."*

— 2012 Annual Survey Respondent

## Summary

The NGCP model facilitates and supports Collaboratives across the United States that serve and connect local girl-serving STEM programs by holding in-person events, distributing a Collaborative newsletter, awarding mini-grants, and increasing awareness of local resources. **NGCP has been effective in building programs' capacity to better engage girls in STEM by increasing collaboration, sharing of resources, and knowledge of exemplary practices.**

The increased capacity of STEM programs through the connections and resources they have access to through NGCP should directly benefit the girls they serve. An Annual Survey respondent describes this process, *"Having a large network gives each individual/local organization or program more leverage, so the more we (STEM programs) collaborate and present our ideas as one entity, the more students benefit."*

NGCP has had other impacts on participants such as increased **commitment to engaging girls in STEM**, with 84% indicating NGCP had increased their commitment at least slightly, and 50% of those indicating a moderate or great increase due to NGCP. NGCP has also increased the **level of awareness of gender equity in STEM**, providing prominence to the issue regionally and nationally, and bringing people together to help resolve the inequity. As one NGCP participant stated, *"It is a framework for working together to turn the tide on gender equity in STEM, rather than working in isolation or competing with each other."*

This report was written by Carrie Liston and Vicky Ragan Coulon of Evaluation & Research Associates, the external evaluators of the National Girls Collaborative Project, in April 2013. Please direct questions to [NGCPEvaluation@eraeval.org](mailto:NGCPEvaluation@eraeval.org).

## The Effects of NGCP

Practitioners participating in NGCP events and using NGCP resources were significantly more likely to:

- agree their network of professional contacts increased;
- share and seek resources from other programs;
- have higher mean levels of collaboration with multiple sectors;
- understand the benefits of collaboration and how to collaborate effectively; and
- have higher ratings of knowledge of informal learning and evaluation and assessment strategies.



*"NGCP has been invaluable in highlighting STEM and the importance of attracting diverse girls to the STEM fields. The NGCP reputation, dissemination and coordination of activities and resources is of tremendous help when planning and executing programs and in fostering collaboration within our region and throughout the nation."*

— 2012 Annual Survey Respondent