NGCP: Building the Capacity of STEM Practitioners to Develop a Diverse Workforce

National Girls Collaborative Project
Agenda

• Welcome & Introductions
• Overview of NGCP
• Implementation in Arizona: How Can This Project Help Your Organization?
• How Can You Help?
• Next Steps
Introductions
Speed Networking

• Your Name
• Your Organization/Program & Role
• Resources
• Needs
• 2 Minutes Each
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
Why STEM?

“Our nation’s future hinges on our ability to prepare our next generation to be innovators in science, technology, engineering, and math (STEM). Yet far too few of our students are prepared for the challenges ahead, and other countries are leaving us in their wake.”

President Obama
Why STEM?

• In 2010, there were 7.6 million STEM workers
• STEM fields will experience 17.5% growth from 2008-2018
• In comparison, the average growth in non-STEM areas will only be 9.8%
• STEM workers earn 26% more than their non-STEM counterparts

Why Arizona?

- Only **23.5%** of residents hold a BA/BS degree or higher
- **14.7%** of residents are persons below the poverty level
- **22%** of 8th graders in Arizona scored proficient or above on science performance on the NAEP
- Achievement gaps among demographic groups even larger.

Current Regional Collaboratives

- Arizona
- Connecticut
- Florida
- Great Lakes (IN, MI, MN, OH, WI)
- Kentucky
- Louisiana
- Maine
- Mid-Atlantic (DC, DE, MD, VA)

- Midwest (IL)
- New Hampshire/Vermont
- New Jersey
- Pacific Northwest (AK, HI, ID, MT, OR, WA)
- Pennsylvania
- Southern New England (MA, RI)
- Texas
- Tennessee
Project Goals

1. Strengthen the capacity of girl-serving STEM programs to effectively reach and serve underrepresented girls in STEM.
2. Increase the effectiveness of Collaboratives by providing professional development focused on sustainability, organizational effectiveness, and shared leadership.
3. Maximize K-12 school counselors’ access to and use of relevant, high-quality resources that increase awareness of barriers to girls’ interest and engagement in STEM.
NGCP Impact

- 12,210,826 visits to the NGCP Web site in 4 years
- 2211 programs are listed in the online NGCP Program Directory
- 19,710 participants served in 205 mini-grants completing activities
- 10,161 practitioners have been served through events and Webinars
- 5,242,126 girls are served indirectly by NGCP by having their leaders trained in the philosophy, knowledge, and methods of NGCP
NGCP Partners

- Afterschool Alliance
- American School Counselor Association
- American Society of Engineering Education
- Cisco
- Coalition for Science after School
- Cray Supercomputers
- Expanding Your Horizons

- Girl Scouts of the USA
- Google
- Microsoft
- National Coalition of Girls’ Schools
- National Center for Women & Information Technology
- Society of Women Engineers
- Techbridge Girls
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Collaboration Model

- **Girl-serving STEM Organizations, Corporations, Educational Groups, School Counselors (Practitioners)**
  - Increased use of promising practices,
  - More efficient use of existing resources,
  - Increased service to underrepresented girls

- **Collaborative Leadership Team (Extension Service Agents)**
  - Collaboration support, Regional leadership, Increase capacity
  - Research-based Strategies
    - Engaging and serving underrepresented girls
    - Organizational effectiveness, sustainability, and scaled leadership

- **Regional Champions Board**
  - Expand regional outreach, Provide expertise and resources

- **National Champions Board**
  - Expand national outreach, Provide expertise and resources

- **Research Community**
  - Webcasts, Web resources
  - Implementation training, Technical support

- **National Leadership Team and Partners (Expert Project Team)**
  - Collaboration Guide
    - Annual Institute Training
    - SharePoint
    - Online Professional Development

- **K-12 Girls**
  - Inform practice, Increase capacity
  - Feedback Loop

- **Feedback Loop**
  - Forums
  - Interactive Webcasts and Online Discussion
  - Mini-Grants
  - Social Networking Site (part of Program Directory)
  - Program Directory

- **Kick-Offs**
  - Annual Conferences
  - Forums
  - Program Directory
  - Mini-Grants

- **Feedback Loop**

- **National Girls Collaborative Project**
  - AAUW
  - AWE: Advancing Women and Men in Engineering
Why Collaborate?

Uncoordinated Services
- Collaboration allows for the creation of a higher quality, more integrated experience.
- Collaboration reduces isolation among STEM professionals.

Scarce Resources
- Collaborative relationships increase access to scarce resources.
Why Collaborate?

Increased Capacity

- Collaboration strengthens relationships among organizations, increasing the potential for learning by sharing promising practices.

- Organizations have increased ability to achieve important outcomes and increase impact.
Model Components and Activities

- Collaborative Leadership Teams
- National and Regional Champions Boards
- Events: Conferences, Forums, and Webinars
- Program Directory
- Project Website
- E-Newsletter
- Incentives to Collaborate: Mini-Grant Funding
Collaborative Events
NGCP Program Directory

- Organization
  - Affiliation
  - Web Only / All-States Resource
    - Limit search to only include national programs or programs that provide services via the Web.
  - Program Focus
    - Science
    - Technology
    - Engineering
    - Math
    - Computer Science
    - Business
    - Humanities
    - Arts

- To make multiple selections hold down the Ctrl key while clicking.

- Resources Needed
  - Computer access
  - Computer technology support
  - Conferences
  - Equipment donations
  - Evaluation/Assessment services
  - Facilities
  - Funding
  - Girls interested in STEM activities
  - Internships
  - Job shadowing

- Resources Available
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- Populations Served
  - At-risk
  - Diversity focus
  - Elementary
  - Employers
  - High School
  - Homeless
  - Incarcerated Youth
  - Low income
  - Middle/Junior
  - Rural

- Collaboration Interests
  - Joint event planning
  - Providing in-kind support
  - Sharing resources
  - Sponsorship

- Service Delivery Format
  - After school programs
  - Classroom support
  - Clubs
  - Special events
NGCP Website

National Girls Collaborative Project

Advancing the Agenda in Gender Equity
for Science, Technology, Engineering, and Mathematics

Get involved! Find an NGCP collaborative in your region:
- New England
- Mid-Atlantic
- South
- Midwest
- Southwest
- West

Numerous programs and initiatives to create gender equity in the areas of science, technology, engineering, and mathematics (STEM) have been implemented only to lose effectiveness or fade away. Had these programs had the benefit of collaboration with other girl-serving projects, organizations and institutions, and tools to assess and evaluate the impact of their efforts, their capacity for continuation and/or broader impact could have been substantially increased.

Star Net
The Space Science Institute's National Center for Interactive Learning (NCIL) is moving forward on implementation of an innovative program which brings science and technology exhibits to libraries. NCIL's

NGCP Receives New Grant
The Ed Lab Group has been awarded a $2,500,000 five year grant to expand and continue the work of the National Girls Collaborative Project through the Research on Gender in Science and Engineering

NGCP Updates

Upcoming NGCP Events

Webcast: Making Programs More Inclusive and Accessible for Youth with Disabilities
September 26, 2011
10:00 AM - 11:00 AM Pacific
Register
NGCP E-Newsletter

NGCP E-Newsletter

June 2011

NGCP Updates
- Collaborative News
- Featured Mini-Grant
- Upcoming STEM Events
- Resources
- Global Resources

NGCP Updates
Survey to Programs Participating in NGCP
Evaluation & Research Associates is working with NGCP leadership to investigate the reach and impact of the project. As part of the study, programs listed in the Program Directory are asked to respond to an annual survey. Questions ask about NGCP resources, NGCP events, and about collaboration. A link to the online survey will be sent June 7, and the survey will remain open until June 30. We would like every program to respond, regardless of level of involvement in the project. Thank you in advance for your participation. If you have questions, please contact Carrie Liston at clliston@eraeval.org.

SciGirls Nominated for Daytime Emmy® Awards

The goal of the National Girls Collaborative Project is to maximize access to shared resources within projects and with public and private sector organizations and institutions interested in expanding girls' participation in STEM.

Find out more....

Sign up for the NGCP E-Newsletter...
NGCP Mini-Grants
How Can You Benefit?

• Collaborative Events
  – Professional development
  – Networking with professionals who share common goals
  – Access to resources and experts in your area

• Program Directory

• Mini-grants

• Online resources
  – Website
  – Webinars – Archived and Live
  – E-Newsletter
Roundtable Discussions

- Inform NGCP Implementation in Arizona
  - Choose a topic
  - Choose a Reporter and a Recorder
  - Spend 15 minutes in discussion
  - Report back to the large group

- Roundtable Discussion Topics:
  - Collaboration
  - Programs/Opportunities
  - Funding
  - Resources
Roundtable Discussions

• **Collaboration**
  - What are some of the real or perceived barriers to collaboration in this region?
  - How can the NGCP facilitate collaboration among various organizations serving girls in STEM?

• **Programs/Opportunities**
  - What unique STEM opportunities exist in your community?
  - Are you aware of programs with a focus on underrepresented populations?

• **Funding**
  - What resources or training topics might be useful to you in this topic?
  - Who are some potential businesses, foundations, or local industry partners that might be interested in supporting this work?

• **Resources**
  - What other activities and projects can be leveraged?
  - What resources and tools do practitioners need most?
Get Involved

• Enter your program or organization in the Program Directory: [www.ngcproject.org/directory](http://www.ngcproject.org/directory)

• Participate in upcoming webinars and view archived webcasts: [www.ngcproject.org/resources/webcastarchive.cfm](http://www.ngcproject.org/resources/webcastarchive.cfm)

• Look for events in your area: [www.ngcproject.org/events/events.cfm](http://www.ngcproject.org/events/events.cfm)
Get Involved

• Offer space or other in-kind resources to host an event in your area

• Volunteer your time or expertise
  • Considering joining the Leadership Team or Champions Board

• Spread the word
  • Recommend the Leadership Team or Champions Board to a colleague or friend

• Encourage others to sign up in the Program Directory, view the website, and attend events
Next Steps in Arizona

- Continue building Leadership Team and Champions Board
- Map resources and programs across the state
- Outreach to organizations that can benefit
- Collaboration Institute- December 2011
- Collaborative Events- Begin Winter/Spring 2012
Contact Information

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