

# Welcome to the NGCP National Webinar

**The STEM Effect: A collaborative action agenda for understanding the long-term impacts of STEM programs on girls**



# Vision

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



# NGCP Goals

1. **Maximize access** to shared resources within organizations interested in engaging girls in STEM.
2. **Strengthen the capacity** of programs by sharing exemplary practice research and program models.
3. **Use the leverage of a network** to achieve gender equity in STEM.



# NGCP Activities



## Virtually:

- Distribution and Content Projects
- ***The Connectory – Collaboration Tool***
- ***FabFems – Role Model Tool***
- E-Newsletter and Social Media
- Webinars – *Exemplary Practices*



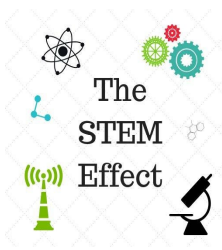
## Local Collaboratives:

- Professional Development: *Conferences and Forums*
- Incentives to Collaborate: *Mini-Grants*
- Newsletters and Local Resources









# The STEM Effect: *A collaborative action agenda for understanding the long-term impacts of STEM programs on girls*



This material is based upon work supported by the National Science Foundation under Grant No. #1811155 (Division of Research on Learning).



# Introduction to the STEM Effect Project

## The STEM Effect An Action Agenda



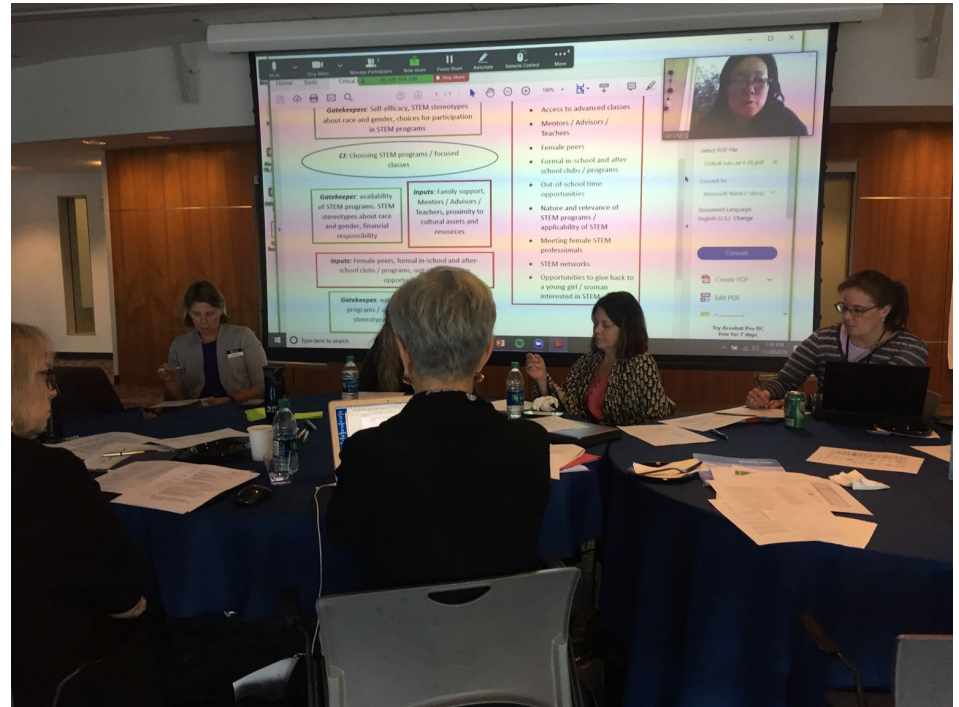


# STEM Effect Overview

**Goals**

**Participants**

**Primary activities**





# STEM Effect Overview

## The Problem

Informal STEM programs for middle and high school-aged girls know very little about their mid- and long-term impact on program participants

## Goals

Develop an action agenda to better understand the mid- and long-term impacts of informal STEM programs for girls, and methods and approaches for measuring them.

Lay the foundation for future research.

# STEM Effect Overview

## Focus on cultural organizations

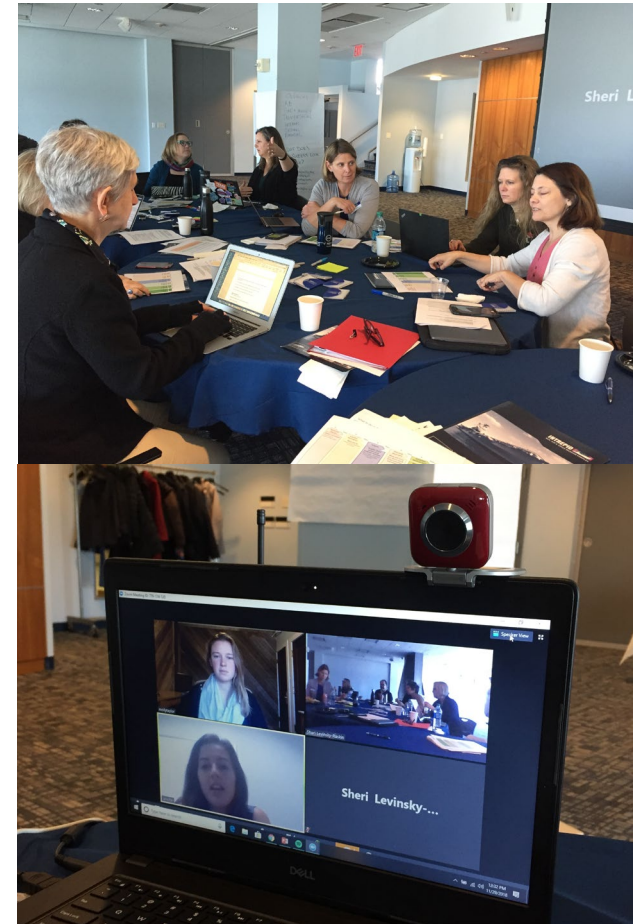
- museums
- science centers
- zoos
- botanical gardens
- aquaria



# STEM Effect Overview

## Participants

- Collaborative Planning Group (CPG)
  - 5 NGCP state representatives
- Representatives and practitioners from cultural organizations
- Other stakeholders - researchers, educators, girls and young women, parents, and funders

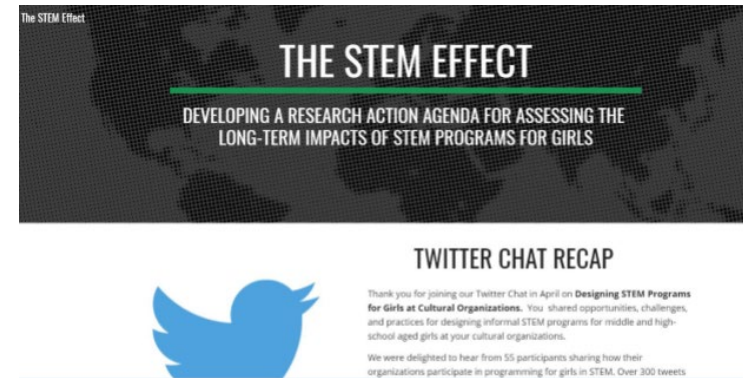


# STEM Effect Overview

## Primary activities

Engagement of stakeholders happened through in-person and online meetings, and twitter chats

- Advisory Board meetings
- Collaborative Planning Group meetings
- Focus groups
- Twitter chats
- Review of existing research literature





# STEM Effect Overview

## Social media campaign

Project Website  
The STEM EFFECT

<https://sites.google.com/view/thestemeffect/home>



Project Facebook Page

<https://www.facebook.com/TheSTEMEffect>



Project Twitter Page

<https://twitter.com/STEMEffectGirls>



### About

The *STEM Effect* project is a collaborative effort led by the Intrepid Sea, Air & Space Museum, the Education Development Center (EDC), and the National Girls Collaborative Project (NGCP), to engage cultural organizations around the U.S. in developing a *Collaborative Action Agenda* for better understanding the mid- and long-term impacts of informal STEM programs for girls.

The project team will engage with these institutions to synthesize their experiences and approaches with the existing research literature on girls in STEM, identify and refine a set of research and programming guidelines and best practices, examine the roadblocks to research, and find opportunities and capacities for gathering and analyzing data needed to understand mid- and long-term impact.

# Elements of Our Action Agenda

**Logic model(s)**

**Critical junctures model**

**Research questions**

**Action Steps**



# Key Areas for Future Research



What elements of girl-serving programs offered by cultural organizations are effective in promoting the long-term participation and educational attainment of girls?

What are effective strategies for supporting girls from non-dominant racial/ethnic groups in persisting on STEM career trajectories?

What are effective strategies for collaboration between STEM-rich organizations that support girls' persistence in STEM over the long-term?

# Proposed Priority Areas for Future Research

## **PRIORITY AREA 1**

Build knowledge about shared criteria across cultural organizations for common self-assessments and evaluation frameworks for their STEM programs, which will bolster the organizational capacity for undertaking long-term impact research and the compilation of data across organizations.

## **PRIORITY AREA 2**

Build knowledge about what kinds of supportive relationships help girls continue on STEM trajectories.



# Proposed Priority Areas for Future Research

## **PRIORITY AREA 3**

Build knowledge about how to design programs that support girls from non-dominant racial/ethnic groups to stay involved in STEM programs.

## **PRIORITY AREA 4**

Build knowledge about the unique program elements that cultural organizations can offer and that inspire girls to persist on STEM career trajectories.

## **PRIORITY AREA 5**

Build knowledge about establishing relationships across cultural and educational institutions to help girls persist in STEM, especially through critical junctures research, which is key to supporting girls on long-term trajectories.

# Let's Discuss:

Join colleagues and respond to one or all of the below

Your feedback is needed



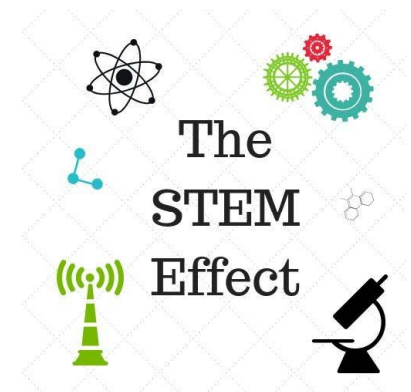
**Q1: In what ways are the overarching questions relevant to you?**

**Q2: How do the examples from the priority areas resonate for you? Let's share other ideas or examples for inclusion.**

**Q3: What partners might you need to do this work?**

# Next Steps

- Help with dissemination, share with your colleagues and stakeholders
- Provide us with feedback
- Contact us at [stemeffect4girls@gmail.com](mailto:stemeffect4girls@gmail.com)



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# Upcoming NGCP Webinar

## The National Math Festival: Engaging Girls in Math Fun!

**Wednesday, April 8, 2020**

11:00am Pacific | 12:00 Mountain | 1:00 Central | 2:00 Eastern

**Register on the NGCP Website**

