



# National Girls Collaborative Project

The State of Girls in STEM:  
A Conversation to Plan Action  
Executive Summary



## OVERVIEW

The National Girls Collaborative Project (NGCP) organized and held a national convening on Tuesday, September 26, 2023, at the New America offices in Washington, DC, to bring together thought leaders for a candid conversation on the persistent issues facing girls and women in STEM. These conversations aimed to create an action agenda for accelerating solutions to make real progress related to girls' and women's representation and experiences in STEM. A throughline across the discussions was the importance of scaffolding the current work in advocacy and fostering strong collaborations to enhance existing initiatives with more effective solutions.

Forty-eight participants attended The State of Girls in STEM event, representing 25 diverse organizations invested in increasing our collective impact on girls and women in STEM education and careers. The goal was to have a group of professionals with a variety of backgrounds, lived experiences, and expertise, participate, including girl-serving organizations, community-based organizations, higher education, and corporations, to facilitate discussion and generate comprehensive solutions inclusive of various perspectives.

The day began with networking time for participants to meet each other and reconnect with those they previously worked with. Karen Peterson, CEO and Founder of NGCP, and An-Me Chung, Ph.D., the Director of Teaching, Learning & Tech, and Strategic Advisor to the Education Policy program at New America, welcomed participants and set the agenda for the day. The program began with YOUTH VOICES: The Current State, a panel of young women in STEM comprised of one high school student and two college students. The goal of the panel was to elevate youth voices and reflect on their viewpoints regarding effective resources and support for girls and women in STEM. "Support is crucial to continuing in the field, but the opportunities being there are important as well" shared a panelist.

Following the panel presentation, participants broke into small groups according to the sector they represent (Education, Workforce/Corporate, Funders) to discuss the barriers the young women shared and their own perceptions of the barriers for girls and women in STEM.



# KEY THEMES

## Education

- ④ Making STEM relevant to girls' lives, including providing real-world experiences and changing practices in schools;
- ④ Addressing myths and stereotypes of perfection related to STEM;
- ④ Inspiring curiosity in STEM learning vs. an overt focus on careers;
- ④ Promoting girls' STEM identity development, including valuing girls' experiences and individual characteristics and interests;
- ④ Changing teaching and messaging related to math; and
- ④ Making high-quality STEM opportunities more equitable in terms of availability.

## Workforce/Corporate


- ④ Reimagining corporate investments and philanthropy by shifting corporate mindsets to see the value of supporting girls in STEM (to both impact girls' experiences and benefit the corporation);
- ④ Reframing corporate approaches to philanthropy to more effectively direct resources to support girls in developing STEM skills and learning about STEM careers;
- ④ Supporting the whole girl; and
- ④ Shifting workplace culture.

## Funders

- ④ The importance of making opportunities and funding accessible for young women in STEM, especially those most in need;
- ④ The role of internships, apprenticeships, and mentorship in encouraging and supporting girls and women in STEM;
- ④ The concept of privilege versus potential and the challenge of providing opportunities and support in an equitable way, acknowledging that students' needs differ based on prior experiences and backgrounds; and
- ④ The need to fix the 'system' - the cultural, structural, and institutional barriers that exist for girls and women in STEM.

After lunch, participants reconvened for IMPACT STORIES: Inspiring Change, a panel of professionals focused on gender equity in STEM in various realms. Panelists shared their experiences of barriers, solutions, and lessons learned from their efforts to support girls in STEM and discussed how they aim to center equity in their work. Following the panel presentation, participants broke into small groups according to the topic they were most interested in:

- ④ **The Whole Girl:** Connecting gender/intersectional inequities in STEM to systems of oppression and girls' whole selves.

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- ⑨ **Partnering with Corporations:** Bringing together corporations and STEM businesses with educational efforts to create a positive impact for both sectors.
  - ⑨ **Connected Pathways:** Facilitating connections between all phases of the K-12 trajectory, higher education/post-K-12, and the workforce.
  - ⑨ **Influencing the Systems:** Exploring the systems that facilitate and/or hinder girls' participation in STEM opportunities, studies, and careers.

## RECOMMENDATIONS

The following recommendations are based on the actionable goals suggested by the Impact Groups and the conversations throughout The State of Girls in STEM event. These recommendations are not the only potential actions to result from the convening but are a starting point. The panel presentations, small group conversations, and large group discussions confirm that while there are a significant number of activities, programs, and initiatives focused on increasing girls' and women's participation in the STEM workforce, we have yet to see a significant shift in the landscape.

### 1. Create a program to acknowledge corporations who support girls and women in STEM.

While it is critical to focus efforts on K-12 and post-secondary education to engage and encourage girls and young women in STEM, there is also a need for women to have STEM workplaces where they feel they have a sense of community. Research has identified potential barriers for women entering STEM professions that need to be addressed, including persistent STEM stereotypes, gender bias and discrimination, lack of support and opportunities for advancement, and negative workplace culture (Ganley, George, Cimpian, & Makowski, 2018; Hamrita, Hall, Fling, & Mendoza, 2023; Funk & Parker, 2018; Th  baud & Charles, 2018). Recommendation #1 focuses on creating a program to acknowledge STEM corporations and businesses to motivate STEM workplaces to invest in recruiting and retaining women employees and sustain a positive workplace culture.

### 2. Build the capacity of corporations to collaborate with and support K-12 STEM education efforts.

Bringing together STEM corporations with educational efforts can positively impact both sectors, and these partnerships are crucial in influencing the systems that affect girls and women in STEM. There are models for fostering partnerships between the K-12 field and corporations to learn from rather than inventing something new. Recommendation #2 focuses on building the capacity of corporations to collaborate with and support K-12 STEM education efforts by empowering them with research and data on gender equity in STEM, including the barriers to and strategies for engaging girls in STEM.

### 3. Develop a new model for illustrating the complex influences on girls and women in STEM.

For decades, researchers and policymakers have relied on the "STEM pipeline" metaphor to illustrate the trajectory from PK-12 education into a STEM degree or career. Despite criticism, it has persisted as the dominant model when examining issues of diversity, equity, and inclusion in STEM. There is a need for a new way of thinking, a new model to replace this problematic metaphor and approach for understanding girls' and women's trajectories through PK-12 education and into the STEM workforce. Recommendation #3 focuses on developing a new model to be rooted in ecological systems theory (Bronfenbrenner, 1979), adaptations of this theory, and current STEM ecosystems work to provide a comprehensive way of thinking about connected pathways and understanding all the complex influences on girls and women pursuing STEM.

- 4. Develop and disseminate a comprehensive report on the state of girls and young women in STEM.** It is critical to center and listen to girls' voices to position them at the front of our efforts and allow them to lead the movement to increase gender equity in STEM. Research on and with girls and young women has greatly increased over the past two decades and can help us understand their perspectives and lived experiences. Recommendation #4 focuses on developing and disseminating a comprehensive report that summarizes existing research that amplifies girls' and young women's voices and includes additional data that addresses gaps in our knowledge related to girls' and young women's STEM engagement.
- 5. Create an online clearinghouse focused on gender equity and STEM initiatives and resources.** While there are numerous initiatives, programs, and resources available to connect with and learn from related to gender equity in STEM, there is no one place to find all this information. Recommendation #5 focuses on creating an online clearinghouse related to gender equity in STEM to facilitate the sharing of knowledge and discourage the duplication of efforts.

## CITATIONS

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