



ADVANCING THE AGENDA IN GENDER EQUITY ANNUAL REPORT





LETTER FROM JEN

Dear Friends,

With renewed resolve through the instability and new norms of 2021, the National Girls Collaborative Project (NGCP) has added new leadership, new programs, and new ways to elevate collaborations for a more equitable future.

As we pursue our mission to connect, create, and collaborate to transform STEM for all youth, our persistence has resulted in new, expanded, and sustained programs. We want STEM experiences to be as diverse as the world we live in.

The opportunity to feel connected was a greater necessity in 2021. As we connected tens of thousands of students and organizations vital to our future STEM workforce, we did so not just nationally, but globally. With substantial STEM ecosystems that connect students to STEM opportunities worldwide, our global efforts pushed our impact even further geographically than before. And our databases are a shining example of the most innovative women working in science today. Whether the IF/THEN® Collection or FabFems, we're putting young people in touch with women who inspire us daily.

We continue to create opportunities, both in new places and with new faces. Whether working

in libraries to create the National Citizen and Community Science Network with Arizona State University and SciStarter or through our allvirtual summer program, Brite, we're hanging out and leveling up in creative ways to ensure that girls see themselves with a future in STEM.

And true to our passion, we continued collaborations that escalated the advocacy and aspirations for all women in science. NGCP has continued to build the capacity of STEM-serving organizations with our partners at Million Girls Moonshot. Working with almost a third of the nation's afterschool state networks, NGCP continued to shape perceptions and diversify the perspectives that are critical to our future by developing the Equity and Inclusion Framework used throughout the country.

On behalf of our talented Board of Directors, our National Champions Board members, the superb Collaboratives all across the nation, our Youth Advisory Board, and our terrific and committed staff, you have our gratitude. You inspire us. You believe in us. And you propel us to serve - together - for outcomes bigger than we ever imagined.

Our unwavering commitment to equity and inclusion is our bright light going into our 20th anniversary year!

Stronger in collaboration,

JENNIFER STANCIL

Board Chair



LETTER FROM KAREN

Dear Collaborative Colleagues,

As I write this letter, it is early 2022 and reflecting on 2021 is a challenging task. Our organization realized many goals in 2021 along with navigating another year of the pandemic, requiring an ongoing commitment to flexibility and compassion for the young people we serve every day. I am full of gratitude for our partners who support us by sharing their expertise and allow us to serve alongside them, especially, the Afterschool Alliance, the Association of Science and Technology Centers, The Franklin Institute, the STEM Next Foundation, and many more.

It was another year of growth, adding talented professionals to our staff as well as three more outstanding leaders to our Board of Directors. In July, we offered another "Brite" summer to programs serving girls, we continued to expand the resources of the IF/THEN® Collection, and strengthened our outreach via strong collaborations across the United States. With the vision of supporting and creating STEM experiences as diverse as the world we live in, our webinars throughout 2021 have been focused on championing educators, researchers, and young people. If this is your first connection with the National Girls Collaborative we are a private, nonprofit 501(c)3 educational organization dedicated to sparking curiosity and passion for science, technology, engineering, and mathematics (STEM) by supporting educators who are working directly with young people.

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We are looking forward to collaborating with you in 2022 as we mark a very special anniversary – 20 years of collaboration! I hope you will join us as we continue to use the power of collaboration and positivity to ignite curiosity, creativity, and passion for STEM!

Sincerely,

KAREN PETERSON Founder & Chief Executive Officer



VISION STATEMENT

STEM experiences are as **diverse** as the world we live in.

MISSION STATEMENT

Connect, **create**, and **collaborate** to transform STEM for all youth.



OUR VALUES

Purposeful Passion

Working at the intersection of compassion and action; understanding and incorporating diverse perspectives and experiences

Collaboration

Listen more than we talk and never work alone

Inclusion

Believing everyone belongs here and has a voice

Empowerment

Having the confidence to take bold action and supporting our partners to do the same

Flexibility

Focusing on scalable, portable, and flexible solutions

Problem Solving

Agilely solve problems through iteration

Respect

Being kind, having empathy, and doing good

Growth & Learning

Learning towards innovation incorporating research and best practices

2021 ANNUAL REPORT



ABOUT US

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

The National Girls Collaborative Project is a network of networks. With 33 Collaboratives statewide or regional network—serving 41 states across the U.S., and networks in Australia and Canada, the NGCP facilitates collaboration across more than 42,500 organizations who collectively serve over 20.2 million girls and 10 million boys. In 2022, NGCP will be celebrating its 20th anniversary and looking toward the next 20 years with a mission to connect, create, and collaborate to transform STEM for all youth.

The National Girls Collaborative Project operates on a global basis as the <u>Global Girls Collaborative</u>. The Global Girls Collaborative acts as a resource for organizations to advance gender equality in STEM fields, including by providing resources on engaging girls in STEM, collaboration, and evaluation and assessment available on our website, and through our Global Girls Newsletter, which provides a listing of events, resources, and other relevant news on a guarterly basis.



2021 ANNUAL REPORT

OUR GOALS

Maximize access to shared resources within projects, and with public and private sector organizations and institutions interested in expanding girls' participation in STEM.

2

Strengthen capacity of existing and evolving projects by sharing exemplary practice research and program models, outcomes, and products.

3

Use the leverage of a network and the collaboration of individual girl-serving STEM programs to create the tipping point for gender equity in STEM.

CONNECT + CREATE + COLLABORATE = STEM TRANSFORMATION

How We Connect NATIONAL GIRLS COLLABORATIVE PROJECT



The Connectory, managed by NGCP, is the largest, most comprehensive directory of youth-serving STEAM providers across the U.S. Parents, families, and caregivers—the primary audience—can visit the site, input their ZIP code, and find quality local and online STEAM opportunities. Beyond showcasing their K-12 opportunities, STEAM program providers can use the site's powerful online collaboration tools. The Connectory works with states to create customized directories and is a pilot partner for Science Near Me, an NSF-funded project to increase public engagement in science. Nearly 7,000 providers have joined the free Connectory, offering more than 13,000 opportunities for families and youth.



NGCP operates the STARportal, Australia's first centralized national portal of STEM opportunities. Like The Connectory, parents, students, and teachers can visit the site to find local and online STEM activities, and program providers can use the Partner Search collaboration tools to share ideas and network with a growing STEM community. NGCP built the STARportal in collaboration with the Australian Government's Office of the Chief Scientist and Engineers Australia.

"

The Connectory has been such an invaluable resource for MakerGirl. The Provider Portal makes it easy to add our opportunities and update them as needed, making it easier for parents, teachers and students to sign up and be more active in STEM. Becoming a provider in the Connectory has helped us connect with other organizations seeking STEM programming — in just two days of outreach using the directory, we were able to meet with 5 other providers! Access to STEM is critical for girls and underserved communities. The Connectory is helping us break down boundaries & ensure educational equity, we are so proud to be a part of this collaborative community.

- MakerGirl

"

As a champion for STEM education, I have found The Connectory to be an amazing collaborative tool to connect educational resources and STEM-based program opportunities to educators, parents, STEM professionals and volunteers in their local region and broadly across the US. I get excited when I can share the website with those that need quick and easy access to STEM content. As many look to find culturally responsive tools to share with students, I often encourage diversitybased STEM organizations (and others) to join The Connectory, so that ALL students can benefit from the breadth of tools and resources available."

- Dr. Michael Smith (NGCP Board Member)

OUR DATABASES

Making it easier for all youth to find engaging STEAM activities and inspiring female role models is the driving force behind the database platforms NGCP manages. These tools are offered to the public and program providers for free. The Connectory and STARportal connect students, parents, and caregivers with STEAM opportunities. FabFems is an international directory of women in STEM ready to serve as role models.



Managed by NGCP, <u>FabFems</u> is an international database of women in STEM, all passionate about serving as role models and helping spark career interest and awareness. The site connects young women with female STEM professionals during critical transition points in the career pathway. FabFems is free and open to young women, families, and girl-serving STEM programs. With nearly 2,000 FabFems, the site serves more than 5,000 girls every year.

"

I am hoping to talk to you about your profession. I am a 9th grade student interested in computer science, your application is related to me personally. When I was 10 I was diagnosed with Type 1 diabetes, so I can relate to the experiences and how family is an important motivator. I am taking a course on a website, though it is helpful I want to be able to learn and get advice from a real accomplished woman from my area.

- FabFems Site User





"

First I want to tell you that even if you are struggling with your chemistry courses right now, that does not mean you cannot be a chemist/scientist/woman in STEM. I got Cs in general chemistry and my professors told me I could not be a chemist, now I have a PhD in chemistry. Remember that your courses teach you the basics and then in "real life" you will get to learn a lot more! So do not get discouraged.

- FabFem Role Model

How We Collaborate NGCP COLLABORATIVES

While NGCP programs and partners are in every state, we have 33 Collaborative Leadership teams in 41 states, which facilitate collaboration between 42,500 organizations who serve 20.2 million girls and 10 million boys. Local Collaboratives have an extensive network of organizations and individuals engaged in pursuing this common goal and the opportunity to share with and learn from each other. They vary in focus areas and populations served, and include higher education institutions, communitybased organizations, and private nonprofits, but all work to increase gender equity in STEM fields. Each Collaborative has a defined region, acting as a hub for local programs to coordinate resources and reach girl-serving STEM programs



in the community. Collaboratives serve and connect local girl-serving STEM programs by holding in-person events, distributing a regional newsletter, awarding mini-grants, and increasing awareness of local resources. In each state, the NGCP model creates a network of professionals, researchers, and practitioners, facilitating collaboration and delivering high-quality research-based professional development. We strengthen the capacity of projects by sharing research-based exemplary practices, program models, and products. We train and mentor participants to collaborate and create partnerships at the state and local level. Professional development is offered through webinars and face-to-face training. Participating programs can also receive minigrant funding for collaborative STEM-focused projects.

- States with a Local Collaborative
- Collaborative Coming Soon



THIS IS WHAT A SCIENTIST LOOKS LIKE

Created in partnership with Lyda Hill Philanthropies (LHP) and the Association of Science and Technology Centers (ASTC), the IF/THEN® Collection is a free digital library with photos, videos, posters, activities, and other assets featuring diverse women STEM innovators - all available for educational and other non-commercial use. Rooted in a firm belief that there is no better time to highlight positive and successful female professional role models, IF/THEN® is designed to activate a culture shift among young girls to open their eyes to STEM careers.

NGCP's Role in the IF/THEN® Initiative

- Collaborate with LHP to develop the IF/THEN® Collection, holding focus groups to help guide the Collection's assets, technology, and website.
- Manage asset requests, support the <u>Association of Science and Technology</u> Center's grantee needs, and oversee the addition of assets to the Collection.
- Boost the use of Collection assets throughout the U.S. by leveraging our network of individual girl-serving programs and STEM-equity organizations.
- Award \$100,000 in grants to NGCP's Collaboratives to promote the use of Collection assets in their statewide networks.











How We Create NETWORK PROJECTS

EQUITY AND INCLUSION ACROSS OUT-OF-SCHOOL PROGRAMS



MILLION GIRLS MOONSHOT

NGCP is a partner of the Million Girls Moonshot (MGM), a movement striving to inspire and prepare the next generation of innovators by engaging one million more girls in STEM learning through afterschool and summer programs. The Million Girls Moonshot is funded by the STEM Next Opportunity Fund.

NGCP developed the Moonshot's Equity and Inclusion Framework, a research-based model for informing and guiding equitable and inclusive program design. Using the framework as a foundation, in 2021, NGCP provided professional development for afterschool networks and programs, facilitated a Community of Practice, and developed a portal of assets within the IF/THEN® Collection specifically for afterschool networks.

The Equity and Inclusion Community of Practice included 17 participants from seven state networks, who came together for five virtual learning sessions during summer 2021. Participants engaged in knowledge building through reading, reflection, activities, and discussion with peers, culminating in the development of action plans to guide future work.

The MGM Portal is a subsection of the IF/THEN® Collection assets that are especially relevant for afterschool and summer practitioners, making access to the Collection more streamlined and user-friendly. In addition to existing assets, the portal includes newly developed activities to implement with youth focused on STEM stereotypes, representation, and career pathways.



In 2021, NGCP provided professional development for afterschool networks and programs focused on creating equitable and inclusive STEM learning opportunities:

- Conducted 14 state/regional workshops
- Led 6 national webinars
- Participated in 4 panel presentations
- Served 16 state afterschool networks with customized resources



Brite 2021 provided girls with multiple opportunities to act as scientists, demonstrate and build competence, and interact and receive recognition from role models and peers. A Brite Community, where all participants were valued and safe, shared, and made mistakes was built.

Brite is an online, interdisciplinary STEM program built for girls ages 13-16. Brite 2021, a joint venture between NGCP and The Hello Studios, was offered July 12-22, 2021, and provided a high-quality, online suite of activities centered on collaborative learning with female role models. Brite 2021 consisted of two courses: Art x Science, featuring role models and activities at the intersection of art and science, and Dream Big, Take Risks, featuring role models and activities that introduced girls to pioneering, multi-disciplinary careers in STEM. A customized online platform, accessed through a 1:1 device, served as a launching pad for girls to participate in individual, small group, and community-wide activities.

The external evaluation conducted by SJLR Solutions LLC revealed significant changes in girls' confidence and self-esteem related to science. There was a 42% increase in girls feeling they are good at science, and a 68% increase in girls feeling they can do science activities as well as most other people. There was also a 52% increase in girls feeling happy when they think of themselves doing science. Girls' favorite parts of the program included talking with role model speakers and meeting new people (SJLR Solutions LLC, 2021).

NGCP conducted a case study centered upon how Brite girl participants perceived the role model experience and what made it meaningful to them. The study revealed two central themes: Girls value learning about interdisciplinary and diverse STEM career pathways taken by role models, and girls find meaning in and relate to role models' personal and professional journeys.

CENTRAL **PROGRAM GOALS**

- Foster STEM identity: a belief in self, image, and ability
- Foster STEM agency: decisionmaking about STEM
- Build a community of girl learners and a support network among them
- Spark curiosity and creativity

"I learned that there are a lot of different branches [of STEM] I can go into, and there's a lot of different opportunities. And knowing that there are going to be people that support me. Even as a female of color. I'll be able to find the support I need and really do what I want to."

- Focus Group Participant

GIRLS STEAM AHEAD WITH NASA



NGCP partners with NASA's Universe of Learning on <u>Girls</u> <u>STEAM Ahead with NASA</u>, a nationwide project to engage girls and their families in authentic STEM experiences and current NASA science. The project provides implementation stipends to informal education organizations to plan and implement events in their communities using the Girls STEAM Ahead with NASA free resources. Together, girls and their families explore the wonders of the universe, learn about space science, and celebrate groundbreaking contributions women have made to NASA astronomy.



LIBRARIES AS COMMUNITY HUBS FOR CITIZEN SCIENCE



NGCP collaborates with Arizona State University and <u>SciStarter</u>, an online hub for citizen science, on Scaling, Supporting, and Sustaining Libraries as Community Hubs for Citizen Science, funded by the Institute for Museum and Library Services. The project aims to build the capacity of libraries to create and disseminate citizen science kits to promote public participation in science. In May 2021, the team launched the <u>National Citizen and Community Science Library Network</u> to support a growing community of libraries interested in becoming a hub for citizen science.

MATERIALS FOR EDUCATORS TO TEACH CRYPTOGRAPHY

NGCP partners with the University of Chicago to support the National Science Foundation-funded project <u>CryptoClub</u>. The CryptoClub Project develops materials for educators to teach cryptography and related



mathematics in informal settings like Boys & Girls Clubs of America, libraries, and YMCAs. NGCP has helped develop a network of training sites across the country that have trained over 250 educators who have developed and led CryptoClubs for over 3000 students.



GSK SCIENCE IN THE SUMMER™

NGCP partners with <u>The Franklin Institute</u> on <u>GSK Science in the Summer™</u> a free education program that aims to inspire children to become the next generation of scientists and engineers through hands-on learning opportunities in the summer. The goal of the program is to increase children's value of and confidence in doing science and pursuing STEM careers by providing opportunities for



2021 ANNUAL REPORT



GSK Science in the Summer

children to think scientifically and practice science techniques, embody science careers, and have fun! NGCP supports a national <u>network of organizations</u> that are bringing GSK Science in the Summer to their communities. These organizations have collectively reached more than 28,000 children each summer.

2021 ANNUAL REPORT

OPEN-ENDED SCIENCE ACTIVITIES



NGCP partners with The Franklin Institute to lead the National Science Foundation-funded initiative Leap into Science: Cultivating a National Network for Informal Science and Literacy. Leap into Science is a nationally recognized program that empowers educators to lead engaging science and literacy workshops for children ages 3-10 and their families, in community settings like libraries, museums, and out-of-school-time programs. The program model consists of state leadership teams representing diverse institutions from state libraries to statewide afterschool programs that are provided with tools to train educators in their state on Leap into Science curriculum and facilitation strategies. Since 2017, over 1.900 educators have been trained, across 20 states. These educators have reported hosting 1,606 workshop reaching approximately 29,000 children and adults. This year, all members of the national network were invited to celebrate science and literacy during Leap into Science Week on June 7-13, 2021. Hundreds of programs participated including 23 mini-grant recipients that collaborated with their community to host innovative Leap into Science programming.

One recipient said "In this past year, we have hosted Virtual STEM Nights, but were unable to provide supplies to families attending. Instead, we provided a supply list for each family, but they were responsible to gather their own supplies. Because of the mini-grant funding, we were able to not only provide each families a kit of supplies for the Virtual STEM Night, we were also able to send home additional activities, a printed packet of instructions for both the adults and the kids, and a book related to the virtual night. If we did not have this grant, we would not have been able to provide services to underserved families in our community."







The <u>Youth Advisory Board</u> (Formerly Girls Advisory Board; changed to be inclusive of nonbinary members) consists of high school youth from diverse regions, backgrounds, and STEM interests (32 youth representing 15 states). The mission of the Youth Advisory Board is to provide feedback on current NGCP initiatives and assist in informing the future direction of the NGCP. It is also used to support its members in pursuing STEM by providing them with unique opportunities. Additionally, there is a Youth Advisory Board Alumni program, for youth who participated on the Youth Advisory Board but graduated from high school.

The Youth Advisory Board works on various projects, some of which include outside partners. One project is NGCP's Town Hall series (recorded webinars), which are led by youth and for youth. These Town Halls are designed to provide information about career paths for girls in the STEM fields. At these events, a panel from the Youth Advisory Board talks to women in STEM (from fields such as robotics, AI, mathematics, engineering, and marine biology) and asks questions submitted by the Youth Advisory Board members as well as from the audience. Thanks to our key partner, Career Girls, for identifying and coordinating the participation of the amazing role models who share their journeys.

The Youth Advisory Board also partners with <u>STEM Without Boundaries</u>. STEM Without Boundaries has various high school chapters that run virtual STEM Nights, geared for encouraging elementary school students in STEM. The Youth Advisory Board runs a session wherein elementary school students can ask them questions about their experiences in STEM (their interests, STEM goals, challenges they have faced, etc.). The youth get to show off their expertise while inspiring other young minds to pursue STEM.

"

The NGCP Youth Advisory Board gave me an opportunity to become a part of a wonderful community of girls who are interested in pursuing careers in STEM. I do not have this opportunity where I go to school and I have always wanted to meet other girls who have faced similar challenges and who have similar aspirations. The Advisory Board also has allowed me to meet several inspiring and accomplished women in science through town hall style meetings.

- Kayla P

"

The NGCP Youth Advisory Board has allowed me to meet so many young girls with diverse interests, strengths, and backgrounds. Thank you for opening my eyes to the world of women in STEM!

- Nicole X

"

I have really loved being a part of the Townhalls, as they introduce many women of STEM into our lives, and I think that has made me a lot more comfortable with pursuing STEM as a girl!

- Erika VK

17

2021 ANNUAL REPORT



CONNECT

CREATE

COLLABORATE

6,000+ STEAM Program Providers listed in The Connectory

1,800+ Role Models in the

FabFems directory

86,433

Practitioners served through in-person events & webinars

54,322 Participants **781** Mini-grant projects



NGCP NATIONAL CHAMPIONS BOARD

<u>Champions Board members</u> are selected to give the project a balance of desirable expertise and regional representation, including industry representatives, informal learning educators, gender equity experts, science, engineering, technology, and mathematics education representatives, and educational policy experts.

John Baek

Senior Education Evaluator NOAA Office of Education

Tom Baker Education Manager Industry Solutions Esri, Inc.

Melissa Ballard Director of Programs, Association of Science and Technology Centers

Karen Bartleson 2017 President and CEO IEEE

Jake Baskin Executive Director Computer Science Teachers Association

Jenn Behrens Partner, EVP Privacy KUMA

Jennifer Breslin Executive Director and Founder Futuristas

Tiffany Brown Executive Director, NOMA

Kimberly Bryant Founder, Black Girls Code

Terri Burns Principal, GV (Google Ventures)

Michael Conn Executive Director, Student Research Foundation

Kendrick Davis Chief Research Officer &

Associate Professor of Research University of Southern California

Bonnie Dunbar Retired NASA Astronaut

Sarah Echohawk

Chief Executive Officer American Indian Science and Engineering Society (AISES)

Kathleen Fitzpatrick Senior Program Manager National Alliance for Partnerships in Equity

Mo-Yun Lei Fong Executive Director, Stanford Technology Ventures Program

Paris Forest Senior Director Information Technology, The Boeing Company

Barbara Gault President, Social Equity Strategies

Olivia Pavco-Giaccia Founder, LabCandy

Judith Iriarte-Gross Professor of Chemistry & Director, WISTEM Center Middle Tennessee State University Heidi Ham Chief Operating Officer, AfterSchool Association

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Karen Harper

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Daniel Hatcher

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Analytics and Modeling Senior Manager, Accenture Federal Services

Caeley Looney

CEO & Editor in Chief Reinvented Magazine

Megan Murphy

Executive Director, National Coalition of Girls' Schools

Chris Neitzey

Director of STEM Initiatives Afterschool Alliance

Illana Raia

Founder & CEO, Etregirls.com

Tere Riley

Sr. Manager Brand Strategy Redwire Space

Stephanie Rodriguez

Workforce and Training Fellow, STEM NEXT

Lucy Sanders

CEO and Co-Founder National Center for Women & Information Technology

Jessi Smith

Associate Vice Chancellor for Research, Professor of Psychology University of Colorado, Colorado Springs

Ruth Sweetser

Immediate Past President American Association of University Women (AAUW)

Jose Antonio Tijerino

President and CEO, Hispanic Heritage Foundation

Samantha Walters

VP of Online Strategies Colocation America





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FINANCIALS

FUNCTIONAL EXPENSES



MANAGEMENT AND GENERAL SERVICES 18%





INDIVIDUAL 10%

2021 ANNUAL REPORT



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