MILLION GIRLS MOONSHOT

HIGHLIGHTS

From Our Third Year

Sept. 2022 - Aug. 2023

Prepared by Public Profit

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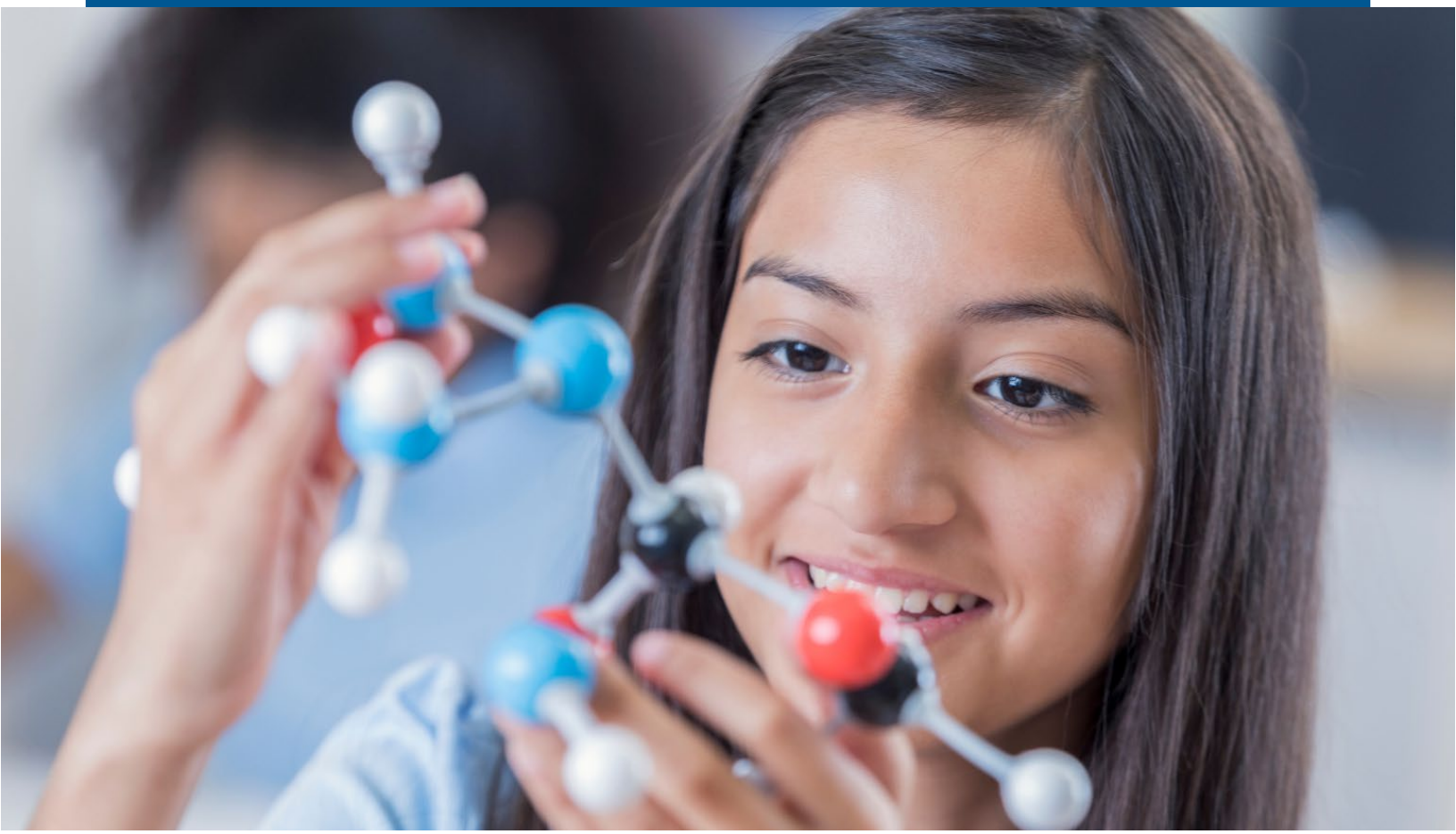


MILLION GIRLS MOONSHOT

About the Million Girls Moonshot

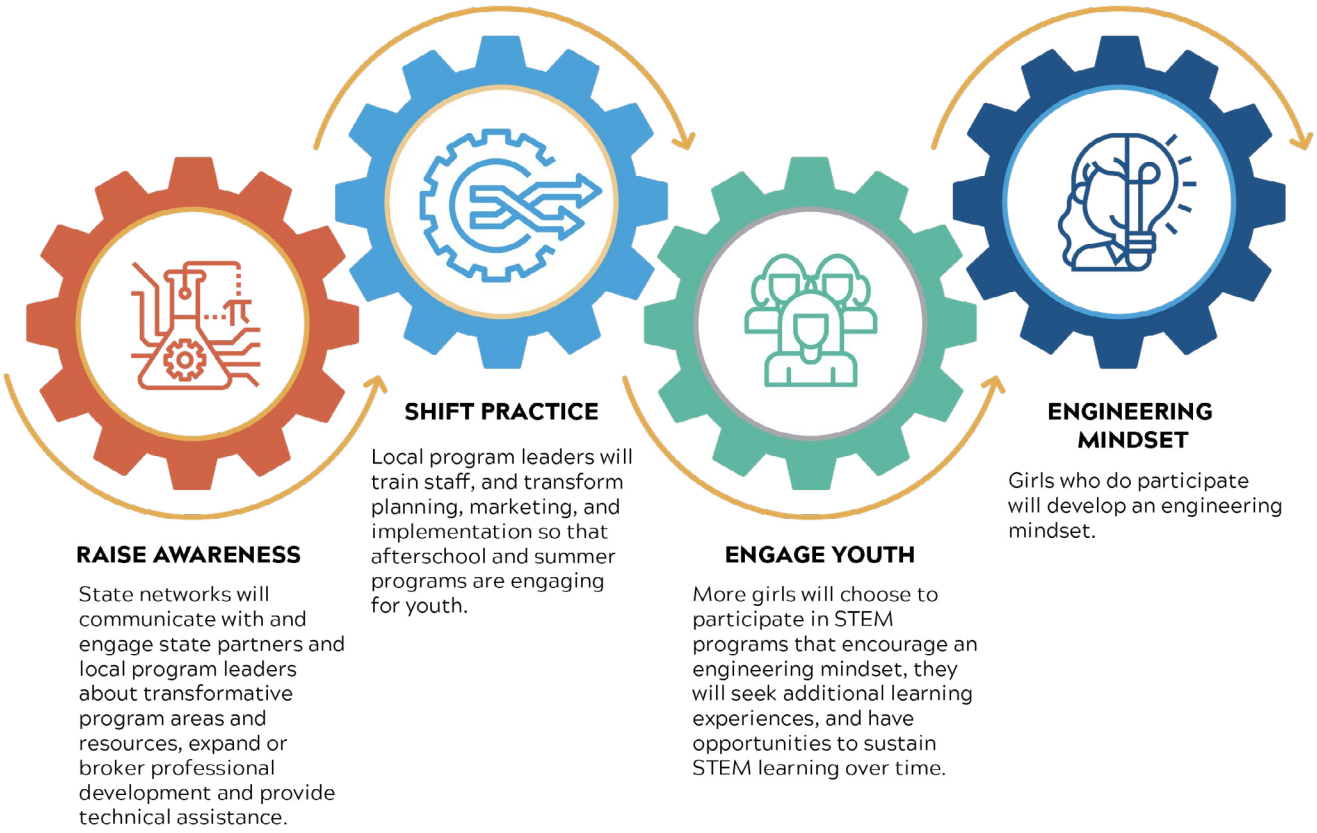
A five-year initiative to reimagine who can engineer, who can build, who can make.

The Million Girls Moonshot is a nationwide initiative of STEM Next Opportunity Fund. One million more girls are being inspired and prepared as the next generation of innovators in science, technology, engineering and math (STEM). Million Girls Moonshot helps girls and all youth develop an Engineering Mindset, a set of ten skills and attitudes including using math and science, iteration, persistence, teamwork, and envisioning multiple solutions.[1]

[1] Learn more about the Million Girls Moonshot at www.milliongirlsmoonshot.org

Theory of Action

Grounded in research, the Million Girls Moonshot Theory of Action, depicted in Figure 1, describes a sequence of interconnected steps that can result in the achievement of the Million Girls Moonshot's major goals.



The Power of the Million Girls Moonshot's Partnerships

Led by the STEM Next Opportunity Fund, the Million Girls Moonshot brings together partners with shared values, a spirit of collaboration, and an unwavering belief that by empowering girls to lead us into the future, lasting change happens. The Million Girls Moonshot uses a collective impact model to engage girls in informal STEM learning opportunities in all 50 states by partnering with exceptional STEM learning providers, funding partners, and state-specific afterschool intermediaries that are known as Afterschool Networks.[2]

[2] Learn more about the Afterschool Networks at www.statewideafterschoolnetworks.net

Transformative Practices are setting a new standard for high-quality OST STEM learning

STEM Next initiated the Million Girls Moonshot to remove barriers through research-based Transformative Practices. National best-in-class partners help enhance STEM program practice in afterschool and summer programming.

- Engineering Mindset – activities that engage girls in developing a set of ten skills and attitudes including using math and science, iteration, persistence, teamwork, and envisioning multiple solutions.

- Inclusive and Equitable STEM – practices that encourage girls and marginalized youth to engage in STEM, including selecting topics of interest to all genders, incorporating community issues into activities, and working in cooperative groups.

- Role Models, Mentors, and Families – engaging young people with STEM professionals from underrepresented backgrounds and encouraging families to participate in STEM activities together.

- Continuous STEM Learning Pathways – working across programs and organizations to assure that young people who are interested in additional STEM-related activities experience a "warm hand-off" between experiences.

The Transformative Practices serve as the guiding principles for the resources, training, and curricula offered by the Million Girls Moonshot, and inform the development of new partnerships to further the impact of the initiative across the U.S.

Year 3:

Reaching 570,000 Girls

In the third year of the initiative (September 2022-August 2023), the Million Girls Moonshot collectively reached 570,000 girls and 1,150,000 young people overall. Approximately 85,000 adult staff members from 45,000 afterschool and summer programs had a touchpoint with the Million Girls Moonshot in this period.[3]

Year 3's successes build upon years of collective effort amongst Million Girls Moonshot partners. Since the Million Girls Moonshot's launch in spring 2020, the initiative has reached more than 4.3 million young people, including 2.1 million girls. More than 319,000 afterschool and summer professionals across 136,000 programs have connected with the Million Girls Moonshot in some way since spring 2020.[4]

In Year 3, Million Girls Moonshot partners report that, of the 570,000 girls who were connected to the Million Girls Moonshot in some way, 115,000 were intensively engaged in STEM activities, such as participating in an afterschool program whose staff attended an in-depth Million Girls Moonshot training opportunity. These young people are most likely to have the kinds of sustained STEM experiences that support the growth of an Engineering Mindset.

[3] Contact the Million Girls Moonshot for detailed information about the data cited in this brief.

[4] Based on state-level partners' reports of their reach in each of the three program years, adjusted for likely duplication across reporting periods.

Engagement in the Million Girls Moonshot in Year 3, By Level of Intensity

	Programs	Staff	Youth	Girls
Strongly Engaged e.g., Programs that received a mini-grant or participated in a professional learning community. Youth participated in multiple high-quality STEM activities.	2,000	4,000	220,000	115,000
Moderately Engaged e.g., Programs with staff who attended a conference or webinar. Youth had sustained access to STEM offerings aligned with the Transformative Practices.	8,000	15,000	180,000	90,000
Lightly Engaged e.g., Programs that received information about the Transformative Practices. Youth had access to more STEM activities.	35,000	66,000	750,000	365,000
Total	**45,000**	**85,000**	**1,150,000**	**570,000**

Source: State-level Million Girls Moonshot Partners, Spring and Fall 2023.

Young people are having positive experiences with STEM and building an engineering mindset. Among 1,700 young people who completed a survey about their experiences in a Million Girls Moonshot-connected STEM program in Year 3, the majority are even more excited about technology (63%), science (54%) and engineering (52%) than before.[5] Moreover, about a third of youth reported that they are more interested in pursuing a STEM career thanks to their experiences in the Million Girls Moonshot-connected programs.

Among afterschool leaders who participated in in-depth training opportunities, feedback was also positive: nearly all agreed that they would share something they learned with a colleague (98%) [6] and that they would be able to enhance the quality of their STEM facilitation (96%). [7]

[5] Common Instrument Suite-Student survey data from afterschool and summer programs supported by state-level Moonshot partners, n = 1,633 for STEM curiosity and n=1,714 for STEM career interest.

[6] Calculated from five of eight partner and program leader-facing training opportunities with Participant Survey Data, N = 59.

[7] Calculated from four of eight partner and program leader-facing training opportunities with Post-Series Survey Data, N = 55.

Powering Partnerships

The Million Girls Moonshot is based on a collective impact model, in which a network of like-minded organizations work toward a common goal. For the Million Girls Moonshot, partners work together to engage more girls with opportunities to build an engineering mindset. That's why STEM Next emphasizes the importance of partnerships to strengthen expertise, pool resources, and reach more girls. A wide array of partnerships are core to the success, magnifying the reach and influence of the Million Girls Moonshot across the country.

The Million Girls Moonshot leverages partnerships at the national, state, and regional level including best-in-class STEM content and program organizations like NASA, Techbridge Girls, ACRES, Teen Science Cafe, and more. [8] Trainings, curricula, and resources aligning with the Million Girls Moonshot's Transformative Practices were shared broadly and have reached approximately 85,000 afterschool and summer educators in Year 3, and 319,000 since the start of the initiative.

The Million Girls Moonshot's corporate partners, including Intel, Boeing, Lockheed Martin, Qualcomm, and many others are encouraging girls in STEM by showing how women lead in their organizations. For example, Qualcomm's Director of Software Engineering, Yun Lin, joined a student member of the Flight Crew, the Million Girls Moonshot's youth ambassadors in STEM, to communicate the importance of engaging girls in quality STEM experiences. Qualcomm and STEM Next created a video series of female STEM role models to further encourage young people to explore their passions.

In addition to these ongoing national-level partnerships, in Year 3 the Million Girls Moonshot's state-level partners forged 743 new connections with organizations in the workforce, post-secondary, K-12, and museum fields (see examples later in this brief.) These relationships help spread awareness of the Million Girls Moonshot and the Transformative Practices to communities who aren't yet involved, engage business leaders, and create connections between youth-serving organizations like schools, universities, and museums.

Since the launch in spring 2020, the Million Girls Moonshot and its partners have formed and sustained over 12,000 partnerships, enabling the Million Girls Moonshot to engage more youth, involve more community members, and support more afterschool and summer programs to implement the Transformative Practices so more girls are engaged in quality STEM learning experiences.

[8] www.milliongirlsmoonshot.org/partners

Partnership Highlights:

Million Girls Moonshot's National Partners

techbridge girls™

Techbridge Girls

Techbridge Girls prepares, trains, and supports adult staff members to effectively inspire the next generation of STEM leaders in gender and culturally expansive work environments. STEM Next Opportunity Fund commissioned Techbridge Girls to offer program leaders and staff across the country a STEM Equity Community of Practice for STEM professionals across the country.

Through this partnership, the 48 participating afterschool educators from 28 states developed their collective identities as equity advocates in the workplace and gained strategies to ensure girls and all BIPOC youth thrive and persist in STEM careers.[9] For example, sixty two percent of respondents in the post-training assessment reported that they strongly agreed that "I am confident in my ability to create an intentional, inclusive and safe space for diverse perspectives and identities to be shared and celebrated within STEM," compared to 49% in the pre-assessment.[10]

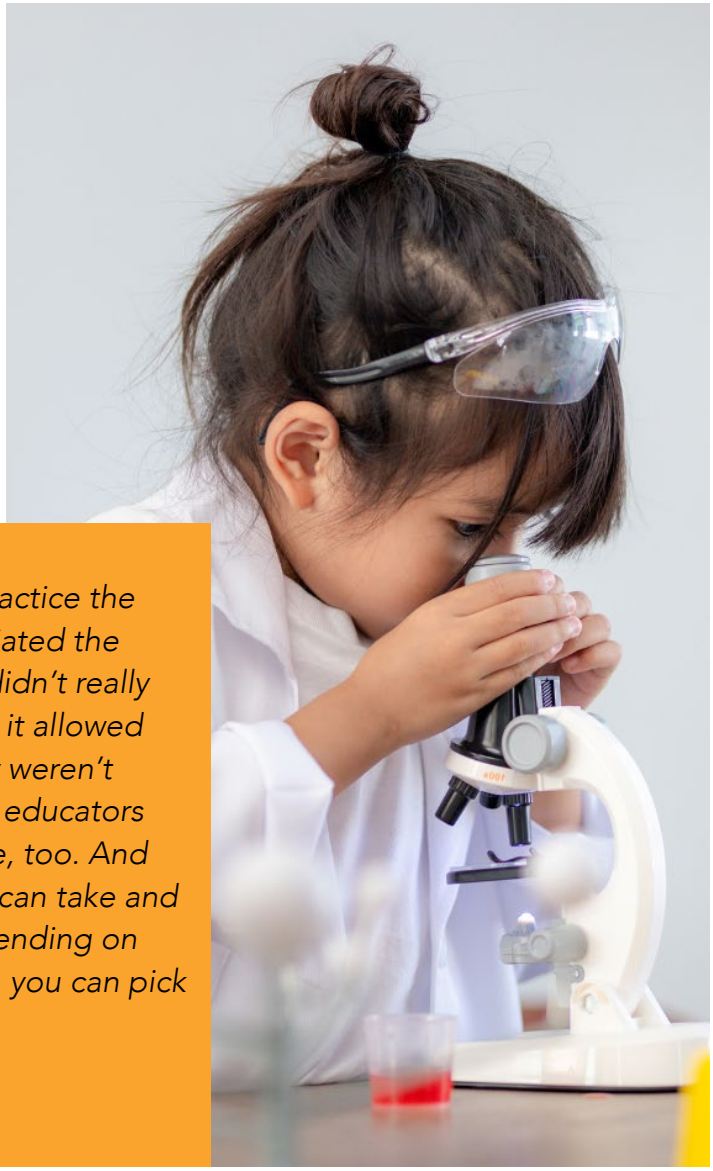
[9] Based on Techbridge Girls 2022-23 Final Report
[10] Techbridge Girls STEM Learning Community Pre/Post Assessment.

Afterschool Coaching for Reflective Educators in STEM (ACRES)

ACRES is a nationally acclaimed coaching program for afterschool professionals that helps them confidently facilitate STEM experiences for young people. With support from STEM Next, the ACRES team hosted training cohorts for 90 professionals in Year 3 on topics such as "Asking Purposeful Questions," "Nurturing STEM Identity and Making Career Connections," and "Make Math Engaging."

Training participants had varying levels of experience in the STEM field, and emphasized how valuable it was to meet with other professionals from different geographic and content areas and discuss their experiences and practices.

ACRES workshops are a perennial highlight for afterschool and summer staff in Million Girls Moonshot-connected programs. To further expand the reach of these impactful offerings, STEM Next commissioned ACRES to expand their Moonshot offerings to offer even more professional learning experiences in Year 4 of the Million Girls Moonshot.



"I was never forced to look at my instruction or practice the way that I had in an ACRES cohort. I really appreciated the format and the fact that I was talking to people I didn't really know from all over. And I kind of like that because it allowed me to be a little bit more vulnerable because they weren't school staff or my boss… that this was a cohort of educators and they were all looking to improve their practice, too. And so I would say that the format of options that you can take and learn about, I think is really amazing because depending on the subjects that you end up teaching, it's like, oh, you can pick and choose what's going to work well for you."

- ACRES Trainee, Sarasota Florida

TEEN SCIENCE CAFÉ
NETWORK

Teen Science Cafe

Teen Science Cafe (TSC) catalyzes free out-of-school time programs where teens and STEM experts collaborate on presentations and hands-on experiences to explore science topics in depth. TSC programs are adaptable and youth-driven: the topics and presentations are based on what young people want to learn. In Year 3, STEM Next commissioned TSC to train 17 adult leaders in 13 states to partner with teens in their communities to offer their own Teen Science Cafes.

Moonshot TSC Fellows co-created 66 Teen Science Cafe events with TSC Teen Leaders, which deeply engaged more than 800 youth. Community role models from STEM fields ranging from paleontology, wildlife rehabilitation, zoology, and fire science engaged young people to share their experiences in school and work, sparking young people's interest in a wider variety of STEM fields.

Partnership Highlights:

State-Level Partners

STEM Next catalyzes strategic national partnerships with a number of top tier organizations to provide STEM resources exclusively to the Million Girls Moonshot state-level partners and encourages them to adapt the curriculum to fit their local contexts. Partners like Click2ComputerScience, ACRES, National Girls Collaborative Project and more are available to state-level partners to systemically grow quality STEM experiences in afterschool and summer programming across their states and adapt curricula to fit their local context.

For example, the New York State Network for Youth Success utilized Click2ComputerScience materials as the basis for their professional development session[11], and the Hawai'i Afterschool Alliance partnered with Click2Engineering experts to host a webinar for afterschool leaders about how to support young people in building an Engineering Mindset.[12] The Wyoming Afterschool Alliance (WYAA) Summer Fellows Pilot program offered professional development by ACRES on asking purposeful questions.[13]

Multiple state-level partners adapted curriculum content from Jobs for the Future (JFF), a Million Girls Moonshot systems-building Implementation Partner. Vermont Afterschool, Inc., for example, partnered with government agencies, a community college, and two workforce organizations (Advance Vermont and the McClure Foundation) to pilot an adaptation of the JFF Career Foundation program. Their implementation included Vermont-specific opportunities and a social and emotional learning component, which was inspired by the Oregon statewide partner's (OregonASK) customized unit called Growing Myself.

The Rhode Island Afterschool Network shared JFF's curriculum with two of its partners, the Boys & Girls Clubs of Providence and Brown Medicine, who worked together to develop a Possible Futures Health Sciences curriculum and create a health career pre-apprenticeship program at a local school. [14]

[11] This summary is based on information shared by staff member(s) in an interview conducted by Public Profit on August 16, 2023.
[12] Based on Hawai'i's End of Year Grantee Report for September 2023.
[13] This summary is based on information shared by staff member(s) in an interview conducted by Public Profit on August 4, 2023.
[14] Based on JFF Progress Report 2023.

Million Girls Moonshot in Year 4 and Beyond

With approximately 18 months remaining in the initiative at the time of publication, the Million Girls Moonshot continues to evolve, building on what's working well and incorporating new opportunities based on what we are learning together.

To deepen the Million Girls Moonshot's impact in Year 4, STEM Next Opportunity Fund has expanded its partnerships to include 13 regional partners through Catalyst Awards. These regional Million Girls Moonshot partners join the statewide afterschool networks to offer deeper STEM engagement opportunities for over 8,400 girls across 450 programs.

FLIGHT CREW
MILLION GIRLS MOONSHOT

The Million Girls Moonshot Flight Crew continues to raise the profiles of its 60 alumni members as STEM leaders in their communities. Cohort 3 of the Flight Crew is presently underway.

Building on the success of past years, the Flight Crew has expanded in Year 4 to include 51 talented representatives from all 50 states. These young people are committed to using afterschool and STEM learning to build a better future where young girls everywhere can envision a place for themselves in STEM. Flight Crew alumni will continue to mentor newer members, further deepening youth leadership opportunities.

Through STEM Next's ongoing strategic partnership, hundreds of afterschool and summer programs will have access to PEAR's (Partnerships for Education and Resiliency) Common Instrument Suite – a validated, research-based set of surveys for youth afterschool programs and staff. Input from young people and afterschool professionals will help demonstrate the Million Girls Moonshot's impact on youth and educators.

The Million Girls Moonshot has surpassed its goal to reach a million girls by 2025. Thanks to the collective effort of the Million Girls Moonshot's partners, many more youth continue to be excited and inspired to pursue careers and possibilities as engineers and innovators of today and tomorrow. The Million Girls Moonshot has served as a launch pad for the STEM Next Opportunity Fund to grow the nationwide capacity of afterschool and summer educators to ready a more diverse and future-ready STEM workforce.

MILLION GIRLS MOONSHOT

milliongirlsmoonshot.org