



Education
Development
Center

ADVANCING THE CONVERSATION

on Scaling National Informal STEM Programs

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ADVANCING THE CONVERSATION

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Agenda

| Monday, May 22, 2023 | |
|-------------------------|---|
| 11:00 AM – 12:00 PM | <i>Registration & Working Lunch</i> |
| 12:00 PM – 1:00 PM | Call to Action & Norms Collaboration Networking |
| 1:00 PM – 2:30 PM | Fostering Equity in Your STEM Programming |
| 2:30 PM – 3:00 PM | <i>Break</i> |
| 3:00 PM – 5:00 PM | Deconstructing Current Conceptions of Scaling & Closing |
| Tuesday, May 23, 2023 | |
| 9:00 AM – 10:20 AM | Opening & Plenary Panel |
| 10:20 AM – 10:40 AM | <i>Break</i> |
| 10:40 AM – 12:00 PM | Re-Engineering Scaling |
| 12:00 PM – 1:00 PM | <i>Working Lunch</i> |
| 1:00 PM – 3:00 PM | Building a Concept Map for Equitable Scaling |
| 3:00 PM – 3:30 PM | <i>Break</i> |
| 3:30 PM – 5:00 PM | Concept Map Review & Closing |
| Wednesday, May 24, 2023 | |
| 9:00 AM – 9:15 AM | Opening & Group Picture |
| 9:15 AM – 10:00 AM | Immediate Impacts |
| 10:00 AM – 11:00 AM | Developing a New Framework for Scaling |
| 11:00 AM – 11:10 AM | <i>Break & Boxed Lunches</i> |
| 11:10 AM – 12:00 PM | Long-Term Impacts & Closing |

Note: Times are listed in the Eastern Time Zone (Washington D.C.)

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Conference Overview

Purpose: We're here to collectively challenge and redefine the conversation related to how we scale informal STEM education programs through the lens of equity and inclusion and grounded in the perspective of program implementers.

Objectives:

- Interrogate current conceptions of scaling.
- Identify essential elements for equitable and inclusive scaling.
- Determine next steps and deliverables.

Process: Engage in thought partnership to learn from our experiences and consider future actions.

Outputs:

- A repository of stories inclusive of equitable engagements and marginalized experiences within informal STEM programs.
- A repository of models related to developing and scaling informal STEM programs.
- A growing community of practitioners focused on equitably developing and scaling informal STEM programs.
- New perspectives on the essential elements related to equitably developing and scaling informal STEM programs.
- A clear set of next steps for developing the project deliverables, which could include a Practitioner's Guide to Equitably Scaling and a new theoretical framework for equitable and inclusive scaling in informal STEM education.

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Menus for Working Lunches

Monday Lunch

Baked Ziti Pasta (V)

Stuffed Artichoke Blossoms with Quinoa (VE)

Green Beans (VE, GF)

Mediterranean & Tomato Peach Salads (VE, GF)

Lemon Curd Moon Pies & Cheesecake Bars (V)

Tuesday Lunch

Taco Bar with Chicken & Beef

Grilled Vegetables (VE, GF)

Santa Fe Terrine & Tortilla Chips (V, GF)

Salad (VE)

Apple & Cinnamon Fritters (V)

Wednesday Lunch

Sandwich Boxed Meals (includes potato salad, green beans, and dessert):

Black Angus Hero (GF available)

Green Goddess Wrap (V)

Turkey Cranberry

V = Vegetarian

VE = Vegan

GF = Gluten Free

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Participant List

| Last Name | First Name | Title | Organization | Email |
|-----------|-------------|---|---|--------------------------------|
| Alkins | Dr. Stephen | Diversity, Equity, Inclusion, and Belonging Officer | TERC/REVISE | stephen_alkins@terc.edu |
| Baek | Dr. John | Senior Education Evaluator | NOAA Office of Education | john.baek@noaa.gov |
| Banay | Emma | Senior Director of STEM Programs | ExpandedED Schools | ebanay@expandedschools.org |
| Blackwell | Amber | Executive Director | Higher Ground Neighborhood Dev. Corp | higherground_ndc@yahoo.com |
| Caldwell | April | Chief Program Officer | Girls Inc. of NYC | acaldwell@girlsincnyc.org |
| Chick | Perrin | ACRES Project Manager | Maine Mathematics and Science Alliance | pchick@mmsa.org |
| Coleman | Dr. Katari | Senior Project Director | Education Development Center | kataricoleman@edc.org |
| Cox | Tara | Assistant Director of Programs | National Girls Collaborative Project | tcox@ngcproject.org |
| Crawford | Lyla | Program Operations Specialist | DO-IT, University of Washington | lylac@uw.edu |
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| Harris | Dr. Lorena | CSTEP and LSAMP Director | SUNY Schenectady County Community College | harrislb@sunysccc.edu |
| Hawkins | Stephanie | Education Curator | Museum of Nature & Science | shawkins@lascruces.gov |
| Henríquez | Andrés | Director of STEM Education Strategy | Education Development Center | ahenriquez@edc.org |
| Ingraham | Deana | GSAN Quality Manager | Georgia Statewide Afterschool Network | dhingraham@georgiavoices.org |
| James | Sheila | STEM Consultant | Ohio Afterschool Network | sheila@oanohio.org |

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Participant List

| Last Name | First Name | Title | Organization | Email |
|---------------|------------|--|--|--|
| Karl | Rita | Self-Employed | Educational Consultant | ritakkarl@gmail.com |
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| Lerman | Laura | Director of Expanded Learning and Youth Engagement | California Academy of Sciences | lberman@calacademy.org |
| Lin | Yun-Yi | Youth Services Library Associate | Princeton Public Library | ylin@princetonlibrary.org |
| Mack | Candid | Program and Events Coordinator | National Girls Collaborative Project | cmack@ngcproject.org |
| McCarthy | Catherine | Project Manager Senior - NISE Network | Arizona State University | cmccarthystem@gmail.com |
| McCreedy | Dr. Dale | Vice President of Audience & Community Engagement | Discovery Center at Murfree Spring | dmccreedy@exploredhcc.org |
| Miller | Dr. Diane | Vice President of Education | Detroit Zoological Society/REVISE | dmiller@dzs.org |
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| Obi | Cynthia | Program Manager, Training & Quality | Techbridge Girls | cobi@techbridgegirls.org |
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|-----------------|----------------|--|---|---------------------------------|
| Peterson | Karen | Founder & CEO | National Girls Collaborative Project | kpeterson@ngcproject.org |
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| Toro | Dr. Sandra | Educational Psychologist, Informal STEM Expert | | sandraatoro@gmail.com |
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| Williams | Dr. Darryl | Senior Vice President, Science and Education | The Franklin Institute | dwilliams@fi.edu |

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Participant Bios

Dr. Stephen Alkins - Diversity, Equity, Inclusion, and Belonging Officer, TERC

Stephen D. Alkins, Jr., Ph.D. is the Diversity, Equity, Inclusion, and Belonging (DEIB) Officer at TERC, where he helps implement the vision for DEIB through STEM education grant development. He helps research teams employ critical frameworks to help dismantle systemic inequities within STEM education, enhance STEM identity development, and engage and include underrepresented/marginalized communities in authentic, collaborative research experiences. Stephen also directs the TERC Scholars Program, an undergraduate research experience, to advance social justice in STEM education and broaden participation of historically excluded groups in STEM fields. He is an accomplished neuroscientist, educator, mentor, and national-performing Spoken Word/SLAM poet. Finally, he is a principal investigator for the Reimagining Equity and Values in Informal STEM Education (REVISE) Center, an equity resource center supported by the NSF Advancing Informal STEM Learning (NSF-AISL) program to cultivate equity in the informal STEM.

LinkedIn: <https://www.linkedin.com/in/stephenalkins/>

Dr. John Baek - Senior Education Evaluator, NOAA Office of Education

As the Senior Education Evaluator for the National Oceanic and Atmospheric Administration (NOAA) Office of Education, I am responsible for implementing performance monitoring and program evaluation systems that support STEM education programs that support our agency's science mission. I bring a broad range of experiences across the fields of evaluation, technology, education, and research. Specifically in informal STEM education, I have served in the following roles: project manager for the Center for Advancement of Informal Science Education (CAISE), advisor on the recently funded REVISE Center, assistant professor in free-choice learning at Oregon State, and lead researcher on a study of the capacity of libraries to support STEM learning. LinkedIn: <https://www.linkedin.com/in/johnybaek/>

Emma Banay - Senior Director of STEM Programs, Expanded Schools

Emma Banay is the Senior Director of STEM Programs at Expanded Schools, New York City's afterschool intermediary. In this role, she manages STEM initiatives designed to increase access to high-quality, culturally relevant STEM experiences for afterschool youth and their educators, particularly those excluded from STEM. She works at the intersection of policy, research, and practice, focusing on bridging gaps between city agencies to unite formal and informal educators in service of youth, ensuring their right to learn STEM in joyful, identity-affirming spaces. In addition, she co-facilitates the New York City STEM Education Network, NYC's regional STEM ecosystem. LinkedIn: <https://www.linkedin.com/in/emma-banay-423743183>

Amber Blackwell - Executive Director, Higher Ground Neighborhood Development Corp

Development Corp. Higher Ground is a comprehensive expanded learning program providing robotics, drone operations, into to technology, engineering, and environmental science through hiking and service learning. Workforce development, college and career exploration, environmental justice, and travel abroad programs for young people ages 16 to 25 are other highlights. Community school technical assistance and professional development round out our multi-tiered service delivery model. LinkedIn: <https://www.linkedin.com/in/amber-blackwell-477602111/>

April Caldwell - Chief Program Officer, Girls Inc. Of NYC

April Caldwell is the Chief Program Officer at Girls Inc. of New York City. Prior to joining Girls Inc., April served as the VP of Affiliate Advancement and Programs, at the National Black Child Development Institute, a trusted partner in delivering culturally relevant resources that respond to the unique strengths and needs of Black children around issues including early childhood education, health, child welfare, literacy, and family engagement. A graduate of Colgate University, April spent three years at Harlem Children's Zone, the groundbreaking nationally recognized New York City program whose holistic cradle-to-career approach to improving student achievement has served as a model for countless communities across the country. Along with possessing a commitment to social justice and service throughout her life, April is a "Program Architect" for non-profits in transition or crisis - working to design, build, restructure, and scale non-profit organizations with a specific focus on education and youth development programs.

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Participant Bios

Perrin Chick - ACRES Project Manager, Maine Mathematics and Science Alliance

Perrin currently serves as the project manager on the ACRES project (Afterschool Coaching for Reflective Educators in STEM) project. Perrin works to connect out-of-school providers to STEM resources through in-person and virtual professional development. ACRES is in a scale-up phase and coaching coaches across the country. Perrin began her career as a classroom teacher. She taught math and science. Perrin went on to work as the Education Director of a Museum for 14 years. Perrin has an undergraduate degree in Environmental Conservation. During Perrin's Master of Education degree, she focused her efforts on integrating technology into informal education settings.

LinkedIn: <https://www.linkedin.com/in/perrinchick/>

Dr. Katari Coleman - Senior Project Director, Education Development Center (EDC)

Hi, I am Katari Coleman, an early childhood education thought leader and expert, who directs innovative efforts to advance all children's school readiness and success. I have expertise in child development, early childhood and AfterSchool workforce development, family engagement, parent education, Adverse Childhood Experiences, strategic planning, and systems change. I co-lead the National Center on AfterSchool and Summer Enrichment (NCASE), a resource and training hub that builds capacity to ensure children can access high-quality AfterSchool learning that supports their development and boosts their academic achievement. A highly experienced trainer and instructional designer, I bring a deep understanding of learning sciences, adult learning, product development, and traditional and virtual training to NCASE. I hold a PhD in Cultural and Educational Policy Studies from Loyola University and an MEd in Early Childhood Education from Erikson Institute.

Tara Cox - Assistant Director of Programs, National Girls Collaborative Project (NGCP)

In 2011, just before graduating from college, I started teaching anthropology at the American Museum of Natural History. At that point, I didn't know you could make a career in museums, but I was soon hooked and have spent the last 12 years in informal STEM education. From 2013-2020, I worked at The Franklin Institute, expanding my focus to educator professional development and national program management. In 2017, we received a grant from NSF to scale Leap into Science, a science and literacy program for young children through a national train-the-trainer model. The program currently exists in 21 states and has reached over 3000 educators and 40,000 children and families. Since 2021, I've had the privilege of working at NGCP where I lead a wide array of national initiatives in partnership with SciStarter, Arizona State University, The Franklin Institute, and NASA's Universe of Learning. I'm passionate about making STEM learning more equitable and inclusive. LinkedIn: <https://www.linkedin.com/in/tara-l-cox-03747793/>

Lyla Crawford - Program Operations Specialist, DO-IT, University of Washington

I have been with the DO-IT program at the University of Washington since 1997. DO-IT works to promote the inclusion of students with disabilities in challenging academic and career programs. I currently serve as the internal evaluator for projects that work to increase the participation of students with disabilities in post-secondary academic programs and careers, and increase access for individuals with disabilities to electronic and information technology in educational institutions. I develop resource materials and deliver presentations about students' transition to college, work-based learning experiences, career preparation, universal design, and accessible information technology.

Emily Early - Senior Program Manager, National Girls Collaborative Project (NGCP)

Emily Early (she/her/hers), Senior Program Manager at the National Girls Collaborative Project (NGCP), has served as the network and community manager for numerous scaling informal science education programs, including Leap into Science: Cultivating a National Network for Science and Literacy (funded by NSF), GSK Science in the Summer in partnership with The Franklin Institute, Science Near Me (funded by NSF), and SciStarter's National Citizen and Community Science Library Network, among others. Prior to working at NGCP, Emily was a Program Manager at The Franklin Institute in Philadelphia, PA, where she led professional development, outreach, and national programs. Emily is passionate about creating sustainable programs and systems that address accessibility and meaningful engagement in STEM for historically excluded communities. While earning her M.S. in Arts Administration from Drexel University's Westphal College of Media Arts and Design, she studied nonprofit management and leadership.

LinkedIn: <https://www.linkedin.com/in/emily-early/>

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Participant Bios

Tiffany Gipson - Director, Equity and Quality, California AfterSchool Network

My goal is to strengthen my community by doing the work that first empowers the individual. I do this by actively taking a stance for justice and liberation through my words and actions. I strive to meet this goal through challenging yet rewarding teaching, coaching, and facilitation opportunities that utilize my diverse talents and respect for all people. I navigate complex, system-level issues and strive to dismantle systems of oppression by co-designing and co-creating liberatory mindsets, practices, policies, and the systems that result from those shifts. Although my work started in traditional education, informal learning spaces are where the students and communities I serve experience the most success. This has been elevated over the last few years in CAN's Expanded Learning and STEAM work that provides technical assistance to communities throughout California to create and embed equitable strategies and an engineering mindset in programs serving our more marginalized communities.

Dr. Leslie Goodyear - Principal Evaluation Director, Education Development Center (EDC)

I'm Leslie Goodyear, I work at EDC, and I've been evaluating informal STEM learning programs for years. I lead evaluations of NSF-funded projects and programs focused on STEM learning, equity, and broadening participation in STEM. I was a program officer at NSF and president of the American Evaluation Association. I'm passionate about helping program staff and leaders learn and improve so STEM learning can be exciting, engaging, and equitable.

LinkedIn: <https://www.linkedin.com/in/leslie-goodyear-111ba95/>

Dr. Lorena Harris - Director of Collegiate Science and Technology Entry Program (CSTEP) and STEM Programs, SUNY Schenectady County Community College

Lorena Harris is the Director of the Collegiate Science and Technology Entry Program (CSTEP) and STEM programs in the Math, Science, Technology and Health Division at SUNY Schenectady County Community College. Doctor in Biological Sciences and with seven years of educator experience. Lorena loves serving and supporting intercultural, multicultural, and underrepresented populations, teaching and sharing her love and passion for STEAM. She enjoys developing and sharing STEM curriculum through role modeling, applied practices, collaborating, and practicing with intentionality and awareness. Lorena first joined SUNY Schenectady in 2012 as the Coordinator of the Spanish Lab and was a participant in the 2013-2014 Internship Program for the Development of Minority Faculty, after a year teaching in the Boston Area, and two years as NIH Postdoctoral Fellow working on Cancer Research and Genome instability at the University of South Florida. She is a Bilingual communicator in English and Spanish. She is a member of the NY STEAM Girls Collaborative. LinkedIn: <https://www.linkedin.com/in/lorena-b-harris/>

Stephanie Hawkins- Education Curator, Museum of Nature & Science

Stephanie Hawkins, MA (she/her) is the Education Curator at the Las Cruces Museum of Nature & Science in Las Cruces, New Mexico. With over a decade of experience in informal STEM education, volunteer management, marketing, and event planning, Stephanie works to leverage local and national informal STEM programs to increase access of these topics to students from historically underrepresented backgrounds. She makes inquiry-based learning and community outreach a priority to provide STEM enrichment opportunities in southern New Mexico communities. In the past two years, Stephanie has begun to offer professional development opportunities for teachers and informal educators at other community organizations that benefit from informal STEM engagement.

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Andrés Henríquez - Director of STEM Education Strategy, Education Development Center (EDC)

Andrés Henríquez, EDC director of STEM education strategy, is a national expert in science, educational technology, and policy. He brings extensive experience in philanthropy, having served as a program officer at the National Science Foundation and the Carnegie Corporation of New York. Most recently, Henríquez led a partnership between the New York Hall of Science, public schools, and first-generation Latinx families in Corona, Queens.

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Participant Bios

Deana Ingraham - GSAN Quality Manager, Georgia Statewide Afterschool Network

I am the Quality Manager for the Georgia Statewide Afterschool Network. My responsibilities include providing professional learning opportunities and technical assistance to afterschool professionals across the state on various topics, including STEAM.

Sheila James - STEM Consultant, Ohio Afterschool Network

Sheila has served as a champion for children and dedicated youth advocate for over 25 years. Her career and advocacy efforts include a variety of experiences: teacher, outreach specialist, program administrator, TA Specialist, STEM Director, and Professional Development Trainer. Sheila has been a leader among her peers to drive quality and consistency of the site experience through coaching, training, and mentoring throughout the country as well as right at home in Central Ohio. She is a Master STEM Trainer, Red Cross FA/CPR/AED Instructor, and Youth Mental Health First Aid Instructor, and holds degrees in Business Administration and Early Childhood Development. Sheila is committed to advancing children's learning and social development by equipping those who work in programs with the impactful tools they need to succeed. This involves delivering best practice information, and relevant resources, and updating significant changing trends in the OST field. LinkedIn: <https://www.linkedin.com/in/sheila-james-143b2322/>

Rita Karl - Educational Consultant

Rita Karl served for a decade as Senior Director and Executive Producer of the Emmy award-winning PBS SciGirls television show and outreach initiative designed to engage more girls in STEM. In this role, she led the education and production team that scaled the NSF-funded SciGirls CONNECT network to 200+ organizations and trained 5,600 educators and STEM role models in gender equitable, anti-racist, and culturally responsive instructional strategies. She served as PI on 15 research projects funded by the National Science Foundation, National Institutes of Health, and NASA. SciGirls won the Gracie Award in 2021 for Best Family TV show and was nominated twice for a Daytime Emmy Award for Best Educational Series. She has served as Director of Education, Challenger Center for Space Science Education, Director of USAID's award-winning Ed Tech in Schools in Egypt, and the NASA Texas Aerospace Scholars high school engineering program, now in its 22nd year. LinkedIn: <http://www.linkedin.com/in/ritakkarl>

Rachel Kessler - Learning Design Coordinator, OregonASK

Rachel Kessler is the Learning Design Coordinator for OregonASK as well as a trainer for the network. She has participated in delivering program content to a wide Afterschool audience as well as creating and scaling curriculum throughout Oregon. She has been a trainer for national content partners, providing opportunities to develop capacity for Mott Networks through various projects.

Dr. Lisa Kovalchick - Professor, Chair of Computer Science & Information Systems, PennWest University - California Campus

Dr. Lisa Kovalchick is currently a Professor of Computer Information Systems and Department Chair within the Computer Science and Information Systems Department at PennWest University. She has served as the Lead Contact for the PA STEM Girls Collaborative Project and as the President of the Pennsylvania Association of Computer and Information Science Educators since 2011. She is currently working on projects involving the National Center for Women & Information Technology (NCWIT) and PBS Skillsville. Dr. Kovalchick has served as a trainer for a number of network projects, including: Cryptoclub, SciGirls, Science Action Club, Hero Elementary, and Leap into Science. In her spare time, she enjoys assisting with summer camps and other events that encourage women and girls to pursue careers in science, technology, engineering and mathematics (STEM).

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Participant Bios

Dr. Anita Krishnamurthi - Sr. VP, STEM & Youth Engagement, Afterschool Alliance

Anita is the President of the Collective for Youth Empowerment in STEM & Society (CYESS), a new initiative of the Afterschool Alliance where she also serves as a Senior Vice President for STEM & Youth Engagement. CYESS aims to support afterschool programs to more actively engage young people in defining and advocating for STEM-based solutions to problems that impact their communities. Prior to this role, Anita most recently served as the Head of Education and Learning at the Wellcome Trust, a global health philanthropy based in London. Her previous roles include being Vice President for STEM Policy at the Afterschool Alliance, Program Manager at NASA Headquarters, Lead for Education and Public Outreach in the Astrophysics Division at NASA's Goddard Space Flight Centre, and the John Bahcall Public Policy Fellow at the American Astronomical Society. Anita has a PhD in astrophysics and serves on the Boards of the National Girls Collaborative Project and STEM Education Coalition in the US and Nobel Prize Out.

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Laura Lerman - Director of Expanded Learning and Youth Engagement, California Academy of Sciences

As Director of Expanded Learning and Youth Engagement at the California Academy of Sciences in San Francisco, Laura Lerman leads the design and expansion of youth-serving initiatives that foster a more scientifically literate, socially just, and civically engaged society. Chief among them is Science Action Club, a globally operating out-of-school time program that leverages citizen and community science to achieve STEM learning goals. Laura's work has earned national accolades for achievement, including the White House Presidential Award for Excellence in Science, Mathematics, and Engineering Mentorship and two Brandon Hall Gold Awards for Excellence in Education.

LinkedIn: <https://www.linkedin.com/in/lauraherszenhorn/>

Yun-Yi Lin - Youth Services Library Associate, Princeton Public Library

My experience in STEM education started by providing a Leap into Science program at my library. I have since provided in-person and self-directed programs that challenge kids to create, make and explore.

Candid Mack - Program and Events Coordinator, National Girls Collaborative Project (NGCP)

Candid Mack has over five years of experience coordinating small business programs for adults. Throughout her professional career, she established the first Small Business Incubator and Pitch Deck Competition for Queens Public Library. Candid's passion is to be a part of the change she wants to see. Her overall mission is to create a generation of leaders that are goal-oriented and will become successful entrepreneurs and professionals. In 2021, she served as a mentor for Intrepid Museum's Goals for Girls program where she mentored girls in STEM in creating a mock business. Candid has spoken at different youth-based organizations educating kids on the importance of having goals. Candid received her Communications degree from St. John's University. LinkedIn: <https://www.linkedin.com/in/candid-mack/>

Catherine McCarthy - Project Manager Senior - NISE Network, Arizona State University

I work as the Project Manager Senior for the National Informal STEM Education Network (NISE Network) based at Arizona State University. The NISE Network is a community of informal educators and scientists dedicated to supporting learning about science, technology, engineering, and math (STEM) across the United States (<https://www.nisenet.org>). We have STEM learning and public engagement projects on various topics including earth and space science, neuroscience, sustainability, radio waves, chemistry, synthetic biology, and nanoscale science.

Before joining Arizona State University, I worked for the Science Museum of Minnesota and the Sciencenter in Ithaca, NY. Prior to joining the museum field, I worked for local government agencies and nonprofits in environmental management, solid waste, hazardous waste, and pollution prevention. I have a BS from Cornell University and an MS and PhD from UC Davis. LinkedIn: <https://www.linkedin.com/in/catherinemccarthy59/>

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Participant Bios

Dr. Dale McCreedy - Vice President of Audience & Community Engagement, Discovery Center at Murfree Spring

Dale McCreedy, Ph.D., Vice President of Audience & Community Engagement, joined Discovery Center in Murfreesboro TN, in 2016. Her position builds on three decades in the science museum world leading program development, community engagement and professional learning, with a particular focus on under-resourced families and girls and women in STEM. She has led three distinct initiatives that ultimately scaled up from local to national implementation. Currently, she serves as the lead for the TN Girls Collaborative, profiting from years of involvement in PA's Collaborative. She is currently working together with 5 other museums on a National Leadership Grant (IMLS) focused on rural communities across the state of Tennessee and is leading an initiative focused on PreK learners and their parents and caregivers in Rutherford County. Dale has the unique position of holding a position jointly funded by Discovery Center and Middle TN State University. She is also excited to be in the 2023 class of Leadership Middle Tennessee, a regional leadership program founded to engage community and business leaders in the 10-county region of Middle Tennessee.

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Dr. Diane Miller - Vice President of Education, Detroit Zoological Society

Since 2013, Diane Y. Miller, Vice President of Educational Programs, has administered all educational and interpretive programming and content for the Detroit Zoological Society (DZS). She has spent the last three decades designing and implementing programs, working with formal and informal educators, parents, and community organizations to boost student achievement in STEM disciplines. Before joining the DZS, she was Chief School and Community Partnerships Officer at the Saint Louis Science Center. During her 17 years in that position, she was the architect of numerous educational science programs, including the YES program (Youth Exploring Science). Over 500 students completed the YES program and went on to secondary school. The program received the 2005 Association of Science and Technology Centers Leading Edge award. The St. Louis American Foundation's Salute to Excellence in Education recognized her as a Stellar Performer. She has served as PI or co-PI on over a dozen federal grants from the National Science Foundation and is currently co-PI for the Reimagining Equity and Values in Informal STEM Education (REVISE) Center, an equity resource center supported by the NSF to cultivate equity in the informal STEM. LinkedIn: <https://www.linkedin.com/in/diane-miller-2138b88/>

Melissa Moritz - Senior Advisor, Inspired Minds, Overdeck Family Foundation

Melissa Moritz serves as the Director of Policy for the STEM Next Opportunity Fund, a Policy Entrepreneur in Residence for the Federation of American Scientists, and a senior advisor to organizations focused on expanding access to and success in high-quality STEM learning experiences. Moritz previously served as the deputy director for STEM at the U.S. Department of Education during the Obama-Biden Administration and recently finished a fellowship where she served as the Afterschool and Summer Learning Fellow at the U.S. Department of Education's Institute of Education Sciences. Previously, Moritz served as the Vice President of Strategic Initiatives for the National Math and Science Initiative (NMSI). She also previously served as the Vice President of Science, Technology, Engineering and Math (STEM) and Education Initiatives at Teach For America (TFA). In that capacity, she oversaw TFA's national STEM Initiative and managed the team that led TFA's Early Childhood Education Initiative, Diverse Learners Initiative, Military Veterans Initiative, and Native Alliance Initiative.

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Kevin L. Nichols - Founder, President & CEO, The Social Engineering Project, Inc.

I am the Founder of The Social Engineering Project, Inc., an Oakland-based, Google-funded, social impact venture with Stanford University designed to address the lack of diversity in the tech industry through culturally relevant STEM pipeline programs for underrepresented students of color that lead to technical career pathways. I am also a Senior Diversity Leader at Lawrence Berkeley National Laboratory and Inaugural Advisory Council Member of Digital Promise's Center for Inclusive Innovation. LinkedIn: <http://www.linkedin.com/in/klnichols>

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Participant Bios

Cynthia Obi - Program Manager, Training & Quality, Techbridge Girls

Hi! My name is Cynthia (she/her/hers) I reside in Prince George's County, Maryland, home of the Piscataway People. I serve as a Program Manager at Techbridge Girls. We offer STEM equity capacity-building support for educators and adults by providing culturally relevant STEM curriculum and training, professional development, and more to equip those whose work impacts girls in STEM settings. I look forward to meeting everyone!

Keturah Pelle - Program Director, South Bronx Overall Economic Development Corporation

My name is Ms. Keturah Pelle, Program Director at Archimedes Academy MS & HS. My experience related to informal STEM education spans over 10 years through multiple lenses. From co-facilitation per grade to now selecting and planning curriculum for an entire program. I am learning every day how to make STEM fun, exciting, and accessible to all students.

Sylvia Perez - Senior Vice President of Education Services, New York Hall of Science

As the Senior Vice President of Education Services at the New York Hall of Science, I have the honor of overseeing a vast array of educational initiatives and programs that empower learners of all ages and backgrounds to actively engage in the exploration of STEM concepts and practices. With over 20 years of experience in the informal learning field, I strive to create equitable learning opportunities for students, educators, families, and communities that spark curiosity, foster creativity, and celebrate that STEM isn't one size fits all. LinkedIn: <https://www.linkedin.com/in/sylvia-perez-894a317b/>

Dr. Karen Peterman - President, Catalyst Consulting Group

I am the President of Catalyst Consulting Group and one of the evaluators for the conference. I have more than 20 years of experience evaluating and studying informal learning spaces, with a particular focus on evaluation methods that don't undermine informal learning experiences. Most recently my work has expanded to include strategic planning efforts to guide large STEM education initiatives and to support strategic science communication. Broadening participation in STEM has been a consistent theme in my company's work research and evaluation work, and I look forward to learning alongside this group at the conference and beyond. LinkedIn: <https://www.linkedin.com/in/karen-peterman-catalyst>

Karen Peterson - Chief Executive Officer and Founder, National Girls Collaborative Project (NGCP)

Karen A. Peterson has over 30 years of experience in education as a classroom teacher, university instructor, teacher educator, program administrator, and researcher. Karen is the founder of the National Girls Collaborative Project (NGCP) which seeks to maximize access to shared resources for organizations interested in expanding girls' participation in science, technology, engineering, and mathematics (STEM). The overarching goal of NGCP is to use the leverage of a network or collaboration of girl-serving STEM programs to create the tipping point for gender equity in STEM. Peterson serves on local and national boards that develop and administer programs designed to increase underrepresented students' interests in STEM. Peterson has published in *The Journal of Women and Minorities in Science and Engineering* and *CBE Life Sciences Education*, a journal published by the American Society for Cell Biology. In 2013, Peterson was profiled in STEMConnector's™ 100 Women Leaders in STEM publication.

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Hannah Pickar - Senior Consultant, Public Profit

Hello, I'm Hannah - a Senior Consultant with Public Profit, an evaluation firm that has a long-standing history of supporting STEM and expanded learning programs to articulate their outcomes and measure their impact. I am especially interested in discussing how evaluation and needs assessments can play a role in the plans to scale programs, and how a continuous quality improvement cycle can support programs along the journey.

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Erin Prentiss - Outreach Services Manager, Augusta-Richmond County Public Library System

I am a librarian in a Southern public library system in a mid-size city. I have experience with informal STEM education through a grant-funded citizen science project. I have also held informal STEM education programs as part of regular library programming. LinkedIn: <http://linkedin.com/in/equentiss>

Dr. Ariana Riccio - Senior Research Associate, Education Development Center (EDC)

As an EDC researcher, Ariana Riccio's work focuses on curriculum development, maker education, and transitions to employment and higher education for adolescents and young adults. Her research relates to improving resources and programming for autistic youth and those with other developmental disabilities. Ariana's current projects are funded by the NSF and NASA.

Ariana is particularly committed to participatory research design. She conducts her work alongside autistic researchers and community members, and she strives to include autistic voices and expertise in all phases of her projects. LinkedIn: <https://www.linkedin.com/in/ariana-riccio-phd-07377034/>

Dr. Amanda Roberts - Assistant Professor of Chemistry, University Of The Incarnate Word

I'm Dr. Amanda Roberts, PhD. I'm an Assistant Professor of Chemistry at the University of the Incarnate Word (UIW) in San Antonio, Texas. I'm a co-Principal Investigator for Girls in Engineering, Mathematics, and Science (GEMS). The GEMS is a free outreach program of the Autonomous Vehicle System (AVS) Research Laboratories located at the UIW. The mission for GEMS is to inspire and empower girls in middle school and high school to be innovative leaders in science, technology, engineering, and mathematics (STEM). We provide after-school and summer programs that utilize multiple pathways for broadening access to and engagement in Robotic/Programming Camp for middle school girls in schools from underrepresented and underserved areas of San Antonio, Texas. We utilize collaborative and applied learning techniques such as Project Based Learning activity groups to introduce basic computer programming using LEGO Education SPIKE Prime Software, Python, and MATLAB Scripting Languages. LinkedIn: <https://www.linkedin.com/in/amanda-lenell-roberts/>

Dr. Tiffany Smith - Director of Research, American Indian Science and Engineering Society

Dr. Tiffany Smith (she/her/hers) is a citizen of the Cherokee Nation and is also a descendant of the Muscogee Creek Nation. Dr. Smith serves as the Director of Research and Career Support for AISES. In this role, Dr. Smith provides oversight, strategic leadership, management, and overall direction of AISES' research and related projects.

Dr. Smith completed a B.A. in Public Relations/Sociology, and an M.Ed. and Ph.D. in Student Affairs Administration, all from the University of Oklahoma. Prior to coming to AISES, Dr. Smith had worked for 16 years in various aspects of higher education, including career development, first-year experience, diversity and inclusion, student engagement, and as adjunct faculty. Dr. Smith has presented nationally on Indigenous higher education topics and serves as the National Chair for NASPA's Indigenous Peoples Knowledge Community. Her scholarship focuses on utilizing Indigenous methodologies to decolonize academic spaces, particularly in STEM fields. LinkedIn: <https://www.linkedin.com/in/tiffanydianesmith/>

Erin Stafford - Project Director, Education Development Center (EDC)

Erin Stafford, M.A. has extensive experience collaborating with national nonprofits, federal and state agencies, foundations, cultural institutions, and community organizations to answer their evaluation questions and support organizational learning and data use. With a focus on culturally responsive evaluation and capacity building, Stafford has collaboratively designed and implemented evaluation projects funded by the National Oceanic and Atmospheric Association (NOAA), U.S. Department of Education (ED), the Institute of Museum and Library Services (IMLS), and the National Science Foundation (NSF). Recently she has co-led evaluation and learning partnerships focused on equity with the MacArthur Foundation and the National Park Foundation. Prior to EDC, Stafford served as manager of research, evaluation, and assessment for the Girl Scouts of Greater Chicago and Northwest Indiana and as an internal evaluator at the Museum of Science and Industry, Chicago. She has an M.A. in Social and Cultural Foundations in Education and a graduate certificate in Women and Gender Studies from DePaul University. LinkedIn: <https://www.linkedin.com/in/erin-stafford-bb735b24/>

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T'Noya Thompson - Consultant, Ph.D. Student, Wild Spark Consulting

T'Noya Thompson has led and managed major activities within the eeBLUE partnership for four years. She has worked closely with the NOAA and NAAEE teams to ensure programs are supported, communications are coordinated, and goals are met. In addition to her role with NAAEE, T'Noya is a second-year Ph.D. student studying organizational leadership and the owner of Wild Spark Consulting. Over the course of her career, she has developed many programs and partnerships, served diverse communities, and engaged hundreds of students. Prior to joining the NAAEE team, T'Noya worked at Galveston Bay Foundation as the Advocacy Programs Manager. There she educated and encouraged action to improve the overall health of Galveston Bay, Texas's largest estuary. Previously, she worked in the animal care department at Moody Gardens, where she served in several roles, including zookeeping and connecting with communities for 12 years. T'Noya is also a Conservationist-In-Residence with Conservation Nation and a Conservation Impact Fellow with the Cincinnati Zoo & Botanical Garden. She holds a B.S. in Marine Biology and an M.A. in Biology from Miami University through Project Dragonfly's Global Field Program. LinkedIn: <https://www.linkedin.com/in/tnoya-thompson/>

Dr. Sandra Toro - Educational Psychologist, Informal STEM Expert, U.S. Department of Education

Dr. Sandra Toro is a Management and Program Analyst in the U.S. Department of Education's Grants Management Policy Division (GMPD). Prior, she was Data and Evaluation Team Lead for ED's Office of Migrant Education, leading data collection and analysis efforts and evaluation and related technical assistance for multiple programs. Before joining ED, she was a Senior Program Officer at the Institute of Museum and Library Services (IMLS), where she oversaw library grant programs and was the research subject matter expert for the Office of Library Services. Prior to IMLS, Sandra was Assistant Professor in the Department of Educational Psychology at the University of Wisconsin-Milwaukee, where she conducted research on how children and families learn outside of traditional school settings and taught courses on learning and development. While at UWM, Dr. Toro was on loan to the National Science Foundation's Division of Research on Learning in Formal and Informal Settings (DRL). LinkedIn: <https://www.linkedin.com/in/dr-sandra-toro-3330585/>

Dr. Lisette Torres-Gerald - Director of Operations & Communication, TERC

Dr. Lisette E. Torres-Gerald (she/her/ella) is a trained scientist and disabled scholar-activist who is a Senior Researcher at TERC, a non-profit made up of teams of math and science education and research experts. She is also the Director of Operations and Communications for the new national NSF AISL equity resource center called the Reimagining Equity and Values in Informal STEM Education (REVISE) Center. Dr. Torres-Gerald has a doctorate with a Certificate in Social Justice from the School of Education at Iowa State University and an M.S. in Zoology with a Certificate in Ecology from Miami University. Her academic research focuses on addressing racialized gender justice and disability in science and higher education. She is an active member of Science for the People and a co-founder and former executive board member of the National Coalition for Latinxs with Disabilities (CNLD). Lastly, she is a Kavli Foundation Sponsored Network Leader for Inclusive Science Communication. LinkedIn: <https://www.linkedin.com/in/lisette-torres-gerald-15721084/>

Dr. Angelicque Tucker-Blackmon - CEO and Director of Research and Evaluation, Innovative Learning Center, LLC

I'm Dr. Angelicque Tucker Blackmon, and I have over 25 years of experience in STEM education evaluation. At the Innovative Learning Center (ILC), my work has focused on partnering with world-class institutions and people to change how we think about and assess STEM education programs. By leveraging my data analytics and ethnography expertise, I can provide clients with the tools to design and implement human-driven STEM education programs that have a real and lasting impact. In 2003, I received my Ph.D. in Educational Studies from Emory University. I have a master's degree in Analytical Chemistry from the Georgia Institute of Technology and completed a two-year Postdoctoral Fellowship in Cultural Anthropology. Before founding ILC in 2003, I worked as a research chemist with Dow Chemical and 3M. Over the years, my esteemed work has led to the publishing of over 30 reports, conference presentations, and research papers.

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Tiffany Waters - Chief Operating Officer, EducationWorks

Tiffany Waters is a dynamic and thoughtful leader. With more than 25 years of experience in the Behavioral Health and Education sectors, Tiffany has dedicated her career to ensuring the betterment of underserved children and families in the city of Philadelphia.

As Chief Operating Officer, Tiffany draws on her years of experience in federal grant management, compliance monitoring, strategic partnerships, and data analysis and assessment to enhance the programs in EW's engage and reengage verticals. During her tenure at EW, Tiffany has leaned into her undergraduate studies and passion for science to promote and normalize STEM programming, experiences, and engagement for Black and Latinx students in PA and NJ.

Tiffany received her Bachelor of Arts in Biology from Temple University and her Master of Education in Multicultural Education and Curriculum Design from Eastern University. LinkedIn: <https://www.linkedin.com/in/tiffany-waters-9771a6129/>

Anthony Wilkes - STEM AmeriCorps Vista, Georgia Statewide Afterschool Network

I am the STEM Vista for the Georgia Statewide Afterschool Network. My responsibilities include STEM asset mapping and coordinating professional learning opportunities and technical assistance for afterschool professionals across the state on various STEAM topics. LinkedIn: <https://www.linkedin.com/in/anthony-wilkes-b682642b/>

Dr. Darryl Williams - Senior Vice President, Science and Education, The Franklin Institute

Darryl N. Williams, PhD, the Franklin Institute's Senior Vice President of Science and Education, oversees all aspects of the science and educational programming at the heart of the Institute's efforts to inspire a passion for learning about science and technology. Dr. Williams has experience in nonprofit, federal, and higher education leading a range of programs and research focused on STEM teaching and learning, designing formal and informal STEM learning environments, and STEM workforce development. As a former rotating NSF program director, Dr. Williams supported the transformation of the Innovative Technology Experiences for Students and Teachers (ITEST) program to focus more on research and evidence-based practices. He is currently the PI of NSF-funded Leap Into Science, a program focused on building literacy and science skills for early learners. Dr. Williams earned his B.S. in Chemical Engineering from Hampton University and his M.S. and Ph.D. in Chemical Engineering from the University of Maryland, College Park. LinkedIn: <https://www.linkedin.com/in/darryl-n-williams-b1703a6/>