National Science Foundation

NSF INCLUDES

Report to the Nation

WHO WE ARE

NSF INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science) is a comprehensive national initiative designed to enhance U.S. leadership in science, technology, engineering and mathematics (STEM) discoveries and innovations by focusing on diversity, inclusion and broadening participation in these fields at scale. The vision of NSF INCLUDES is to catalyze the STEM enterprise to collaboratively work for inclusive change, which will result in a STEM workforce that reflects the diversity of the Nation.

A MESSAGE FROM THE DIRECTOR

In 2013, the NSF Committee on Equal Opportunities in Science and Engineering (CEOSE) recommended that NSF undertake a bold, new initiative in broadening participation in STEM. In response, NSF established NSF INCLUDES, a comprehensive national initiative designed to enlarge the pool of innovators and thereby leverage the benefits of diversity in the U.S. population to make substantial improvements in our nation's leadership in STEM discovery and education.

Recognizing the opportunity for significant impact, NSF INCLUDES is situated as one of ***NSF's Ten Big Ideas for Future NSF Investments*** at the frontiers of science and engineering. As a ***Big Idea***, NSF INCLUDES is investing in pilot projects, and will soon be funding alliances and partnerships that use research-based, collaborative change strategies meant to unite a wide variety of partners to solve a common broadening participation problem.

To achieve national impact, NSF INCLUDES shifts away from single-project efforts, and recognizes that complex problems are best addressed through collaborative approaches and shared resources among varying institutions, industry, professional societies and the scientific community at-large.

I am pleased to share with you this ***NSF INCLUDES Report to the Nation*** publication which describes its distinct collaborative components: Vision, Partnerships, Goals and Metrics, Leadership and Communication, and Potential for Expansion, Sustainability and Scale.

I invite you to explore our initial program statistics and experience the excitement that NSF INCLUDES is generating through the Design and Development Launch Pilots and the thirteen conferences convened by NSF and the community to discuss and support the design of NSF INCLUDES.

I hope the information shared within this report will motivate you to connect with the NSF INCLUDES National Network. I am confident that NSF INCLUDES will result in positive, transformative change within the U.S. STEM workforce and research community. I look forward to updating you on our progress, influence, and change as we continue to build the NSF INCLUDES National Network.

Dr. France A. Córdova
Director, National Science Foundation

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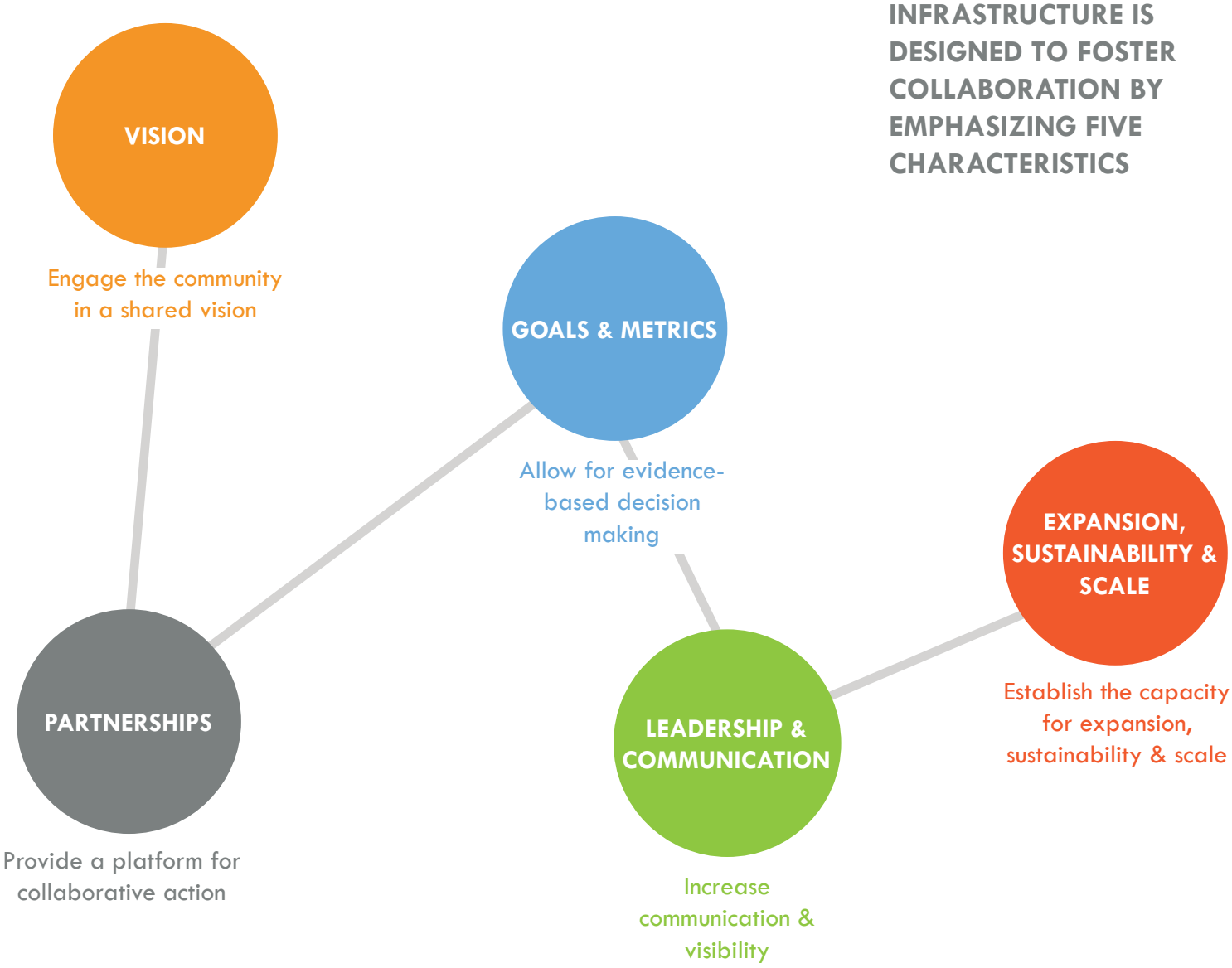


Every NSF INCLUDES project and the NSF INCLUDES National Network engages a broad community in a shared **vision** of the importance and power of diversity for scientific innovation.

Partnerships and networks are at the heart of the NSF INCLUDES National Network, and through the Coordination Hub, Alliances and Design and Development Launch Pilots we hope to provide a platform for partnerships and collaborative action.

Partnerships and networks will run on shared **goals and metrics** that allow for robust data that facilitate evidence-based decision making.

NSF INCLUDES is also designed to build capacity for **leadership and communication** among organizations and individuals to create opportunities in STEM education and careers.

Finally, collaborative infrastructure should lead to more partners joining the movement, more connections being made, and a chance for collaborative change to lead to **expansion, sustainability and scale**.

STRATEGIES | VISION

Every NSF INCLUDES project within the NSF INCLUDES National Network is engaging a broad community, sharing a vision for change and embracing the importance and power of diversity for scientific innovation and education for a STEM capable workforce.

*Note: Some projects have goals and objectives that fall into more than one category.

69 DESIGN AND DEVELOPMENT LAUNCH PILOT GRANTS WERE AWARDED IN FY2016 AND FY2017 TO ADDRESS BROADENING PARTICIPATION CHALLENGES SUCH AS...

5 expand access to quality STEM education

6 address career needs of STEM professionals

10 prepare STEM educators

10 address students' STEM identity, attitudes, motivation

11 strengthen institutional capacity

20 enhance support systems for under graduate and graduate STEM students

41 provide STEM engagement for students and communities to promote STEM studies and careers

“This is not meant to be an 18-month grant, this is not meant to be a 2-year endeavor, this is meant to be a decade long endeavor at minimum that we are asking you to embark on with us to transform the landscape of higher education for the state of Colorado.”

Noah Finkelstein, University of Colorado Boulder
Creating Academic Pathways in STEM (CAPS) – NSF Award 1649201

STRATEGIES | PARTNERSHIPS

ONE YEAR OF PROVIDING A PLATFORM FOR COLLABORATION

NSF INCLUDES emphasizes collaborations; strengthening existing partnerships and bringing in new partners. The program especially encourages relationships across organizations from different sectors, such as industry, professional societies, informal STEM organizations and others.

The 69 Design and Development Launch Pilots comprise a network of 760 partner organizations. These partners are located in over 45 states plus the District of Columbia, the U.S. Virgin Islands, Guam and the Marshall Islands. The collaborations bring cross-sector diversity to the table representing industry, laboratories, community organizations, non-profits, government agencies, schools, community colleges and universities. This variety of partners across geography, background, experience with collaborative change and broadening participation brings us one step closer to building the NSF INCLUDES National Network.

"In order to improve the pathway, we need people from all across the pathway. We have San Francisco Unified (School District) which is the K-12 part of the pathway, cooperating with San Francisco State, which is the college part of the pathway, cooperating with the San Francisco Chambers of Commerce, which is the post-college/industrial part of the pathway."

Eric Hsu, San Francisco State University
Computing for All Levels & Learners (SF Call) – NSF Award 1649277

760 PARTNER ORGANIZATIONS WORKING TO BROADEN PARTICIPATION IN STEM THROUGH COLLABORATIVE CHANGE, INCLUDING…

4
local libraries and library systems

10
private foundations

11
museums and observatories

13
federal/national labs and federally funded research and development centers

52
professional organizations and their affiliates

57
community colleges and community college districts

58
government agencies and their affiliates

68
corporations

96
K-12 schools and local or state school districts

112
non-profit and community organizations

254
colleges, universities and university affiliates

25
other organization types

STRATEGIES | GOALS & METRICS

NSF INCLUDES collaborations run on shared goals and metrics to allow for robust data that facilitate evidence-based decision making. Collecting data and measuring results consistently across all participating organizations ensures efforts are aligned and participants hold each other accountable. The emphasis is on a disciplined method of measuring progress and change in order to contribute to the knowledge base on effective strategies for broadening participation.

THE APPROACH: Early in the collaboration, partners refine their collective commitment to a common set of objectives and plans to achieve them. Partners share their goals and plans with one another, the broader community and the NSF INCLUDES National Network, enabling all to learn from their pilot project experiences.

"We've developed dashboards so every member of the coalition thus far is submitting their project plan with their current status, their goals, and status against the goal, and we've rolled that up into a dashboard that is cloud based and every member of the coalition can see (it)."

Karl Reid, National Society of Black Engineers
Increasing Degrees Awarded to African Americans, Hispanic, Native Americans and Women Students in Engineering (50K Coalition) – NSF Award 1649355

THE DESIGN & DEVELOPMENT LAUNCH PILOTS ARE FOCUSING DATA GATHERING ON THE FOLLOWING AREAS:

- 33 student development
- 10 institutional development
- 8 teacher/faculty development
- 8 STEM identity and motivation development
- 4 curriculum development
- 4 community development
- 2 workforce development

THE DATA COLLECTION ACTIVITIES INCLUDE:

- document review
- classroom observations
- focus groups
- interviews
- pre/post surveys of student STEM attitudes, knowledge and intent to persist
- pre/post surveys of instructor attitudes, knowledge and professional learning practices
- surveys (assessing perceived mentorship quality, thriving and sense of belonging)
- coding of participant curriculum vitae to gauge productivity
- enrollment counts
- retention analysis
- gap analysis (to evaluate partnerships)
- inventories

STRATEGIES |

LEADERSHIP & COMMUNICATION

Ultimately, NSF INCLUDES is prompting new thinking about expansion, sustainability and scale. Rather than funding isolated efforts, NSF INCLUDES is building the collaborative infrastructure for individuals and organizations to share information, resources and other assets across broader networks that will reach more people across the country. Already, each NSF INCLUDES Design and Development Launch Pilot has been solidifying its networks and partnering with new organizations and with each other. Soon, NSF will welcome the addition of an NSF INCLUDES Coordination Hub to the NSF INCLUDES National Network to help manage these partnerships.

NSF INCLUDES also encourages new and creative ways for projects to tell the story of the progress they are making and to share results with multiple stakeholder communities.

> **"This project is centered in the community and we couldn't do it without their support. Everything we are doing, we are getting community folks from organizations on board, constantly checking in with them. What issues are they concerned about? How do they want to see this work in the community? And this is how we are going to bring young people back into the STEM pipeline, by centering their real-life concerns in STEM and by showing them how to make STEM their own."**
>
> **Kimberly Lawless, University of Illinois at Chicago**
> **A Community Centered Approach to Improving STEM Pathways for Underrepresented Students – NSF Award 1649298**

Additionally, NSF INCLUDES awarded 13 conferences that offered an introduction to a wide range of ideas and content aimed at building the capacity for implementing of innovative collaboration and broadening participation activities. Conferences convened from January through May, 2017. Conference attendees represented a wide range of local, regional and national partners, NSF program directors, experts and Design and Development Launch Pilot principal investigators and team members.

SOME HIGHLIGHTS AND OUTCOMES FROM THE CONFERENCES INCLUDE:

The Envisioning Impact (NSF Awards 1650289/1650158) conference hosted an NSF INCLUDES video showcase in spring 2017 in which Launch Pilots prepared three-minute videos that told the story of their project and collaboration.

The Multiscale Evaluation in STEM Education (NSF Award 1650390) conference at the University of Tennessee, Knoxville, offered access to experts in STEM program evaluation who provided evaluation techniques at multiple scales.

The Atlanta Collective Impact Backbone Design Workshop (NSF Award 1650516) and the Collective Impact as a Pathway to Reinvigorate Broadening Participation in STEM (NSF Award 1650548) conference at UC San Diego provided opportunities for attendees to discuss collaboration ideas with experts and design backbone organizations for collective impact efforts.

In Cincinnati, at the NextLivesHere Innovation Summit (NSF Award 1650433), participants engaged in strategic modeling using a range of design tools to label and frame ideas and build model ecosystems supporting STEM inclusion.

The Informing the Design of the NSF INCLUDES Alliances and National Network: An Intersectionality Approach (NSF Award 1650510) conference in Dallas emphasized backbone functions with a strong focus on the intersectionality of race, ethnicity, disability, culture, gender, class and sexual orientation.

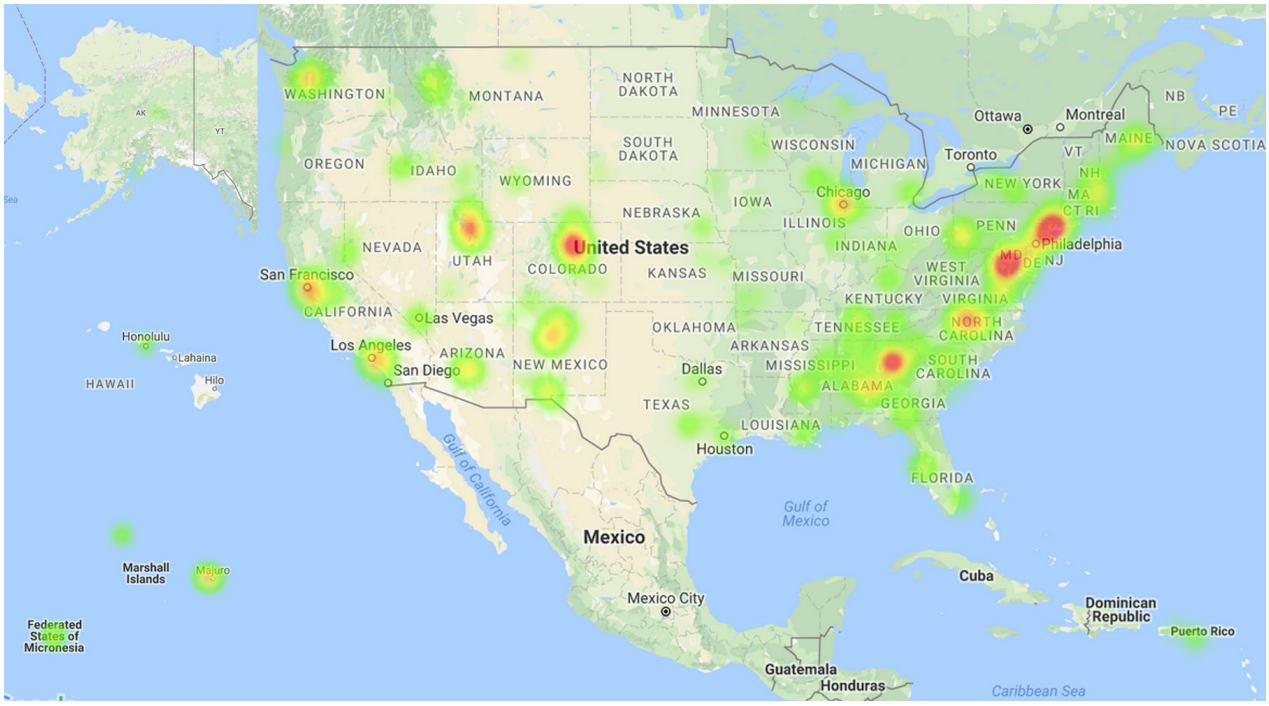
In the High-Leverage Problems, Useful Data, Formative Evaluation and Effective Communication (NSF Award 1650508) meeting in Menlo Park, CA, Launch Pilot project participants engaged in hands-on experiences developing aim statements and driver diagrams, defining improvement measures, designing evaluation plans and creating communication plans for networked improvement communities.

The Technical and Human Infrastructure to Support Collective Impact of the NSF INCLUDES Program at the Alliance and Network Levels (NSF Award 1650509) and the Accelerating Data-Driven Collaboration for Large-Scale Progress (NSF Award 1650490) conferences focused on types of communication tools among key stakeholders and the human infrastructure needed for backbone organizations to facilitate networking and collaboration.

STRATEGIES | EXPANSION, SUSTAINABILITY & SCALE

Ultimately, NSF INCLUDES is prompting new thinking about expansion, sustainability and scale. Rather than funding isolated efforts, NSF INCLUDES is building the collaborative infrastructure for individuals and organizations to share information, resources and other assets across broader networks that will reach more people across the country. Already, each NSF INCLUDES Design and Development Launch Pilot has been solidifying its networks and partnering with new organizations and with each other.

The heat map below illustrates the current reach of the NSF INCLUDES National Network.



"Association of Public Land-Grant Universities (APLU) is an organization of more than 200 universities, land-grant, public research universities, university systems, we're located in all 50 states. We have over 1.5 million students, we prepare and hire the dominant portion of the nation's STEM faculty. Because of the large number of our institutional members we are in a position to help scale up these best practices."

Peter McPherson, APLU
A Collective Impact Approach to Broadening Participation in the STEM Professoriate – NSF Award 1649214

LESSONS LEARNED

NSF INCLUDES began with the goal to "develop networks that involve representative organizations and consortia from different sectors that are committed to a common agenda to solve a specific STEM inclusion problem at scale."[1] As reported in this ***Report to the Nation***, the NSF INCLUDES community has engaged in deep discussions and implementation of broadening participation and collaborative change strategies leading to the identification and refinement of the NSF INCLUDES five elements of collaborative change: Vision, Partnerships, Goals and Metrics, Leadership and Communication, and Expansion, Sustainability and Scale.

This section presents some of NSF's early lessons learned and preliminary outcomes from across the inaugural set of NSF INCLUDES Design and Development Launch Pilots. The NSF INCLUDES developmental evaluation team completed an in-depth portfolio analysis and conducted interviews and focus groups with NSF INCLUDES Launch Pilot principal investigators to capture lessons learned across a wide range of topics.[2]

This preliminary evidence of progress toward outcomes is organized using the goals and objectives of the first NSF INCLUDES solicitation and the five elements of collaborative change. The lessons learned to date are outlined in the column and row heading text in the following table. The table text in gold characterizes collective wisdom about the information to capture on practices and operational approaches that would indicate how well NSF INCLUDES vision and goals are working.

Eventually, such information will inform the knowledge base on broadening participation and collaborative change to be promoted and shared with others. NSF INCLUDES defines a lesson learned as: "What do we need to do more of, less of, or differently to make steady, documentable progress toward our desired goals?"[3] By framing outcomes in this way, NSF INCLUDES, as a Big Idea, provides stimuli for new learning relative to ongoing and future programming. When lessons learned are synthesized and shared, this contributes to the initiative's capacity to succeed. Most importantly, NSF INCLUDES wants to capture a shift in the collective understanding about processes and progress that successfully lead to bringing together dedicated partners, finding solutions that work and building a nation where everyone has opportunities in STEM.

[1] NSF 16-544 Retrieved November 10, 2017, https://www.nsf.gov/pubs/2016/nsf16544/nsf16544.htm

[2] Preliminary portfolio analysis, draft findings from interviews and focus groups with a sample of DDLP PIs (Fast Track OMB-Control Number 3145-0215), review of available annual reports, technical assistance needs assessments and memos, and program officer observations at meetings and conferences were used to surface and synthesize the highlights and lessons learned presented here.

[3] Centers for Disease Control and Prevention (2006). *CDC Unified Process Practices Guide: Lessons Learned*. Retrieved November 10, 2017, https://www2a.cdc.gov/cdcup/library/practices_guides/CDC_UP_Lessons_Learned_Practices_Guide.pdf

LESSONS LEARNED

NSF INCLUDES ELEMENTS OF COLLABORATIVE INFRASTRUCTURE

LESSON CATEGORY	**Vision** *The NSF INCLUDES vision to use collaborative change strategies to address broadening participation challenges energized the community.*	**Partnership** *The partnerships developed by the Launch Pilots are one of the most successful aspects of NSF INCLUDES thus far.*
Refining Definitions and Expectations *Launch Pilots are eager for more opportunities to explore next steps and define their alliances.*	Each Launch Pilot defined their broadening participation challenge and now continues to develop the collaborative infrastructure needed for success.	Launch Pilot partners engage in the dynamic process of refining goals and implementation strategies.
Expanding the Knowledge Base *Launch Pilots are leveraging science of broadening participation research and collaborative change strategies to build the evidence base.*	Through iterative implementation, Launch Pilots expand the evidence base for addressing broadening participation challenges and explore effective applications of collaborative change strategies.	Launch Pilot partners bring their broadening participation knowledge to the table and share it across the NSF INCLUDES National Network.
Building Capacity (Operations, Resources, and Support) *Launch Pilots are increasing their capacity through participation in conferences and technical assistance, and by sharing experiences.*	Launch Pilots take the hands-on, collaborative experiences from NSF INCLUDES-sponsored conferences and technical assistance and incorporate them into implementation.	Strategic modeling and design tools introduced through NSF INCLUDES-sponsored conferences and technical assistance support Launch Pilots in the design of collaborative infrastructure.
Building Networks and Community *Launch Pilots are networking with each other and sharing lessons learned.*	The collaborative work of the first cohort of Launch Pilots builds the foundation for the NSF INCLUDES National Network.	Launch Pilots form relationships with one another and with new organizations through connections made at the PI meeting, NSF INCLUDES-sponsored conferences, and beyond.

Goals & Metrics *Launch Pilots are using data to increase their focus, clarify their goals and add more partners.*	**Leadership & Communication** *The challenges of managing collaborative change have led to the development of more leadership and communication capacity within the community.*	**Expansion, Sustainability & Scale** *Launch Pilots are testbeds that lead to rapid prototyping and development of strategies for Alliance formation.*
Launch Pilots revise metrics to best capture project outcomes and establish mechanisms for partners to report standardized data.	Launch Pilots engage partners as co-creators and distribute leadership responsibilities across the collaboration.	Launch Pilots determine how geographic distance and the size of the challenge being addressed affects sustainability and scaling.
Feedback from Launch Pilot stakeholders drives project design modifications.	Launch Pilots share experiences, lessons learned and promising practices to meet the broadening participation challenges and maintain effective communication.	Knowledge accumulates through experimentation and implementation and diffuses across the Launch Pilots and the NSF INCLUDES National Network.
Launch Pilots develop strategies to coordinate data collection across multiple sites and capture the evolution of project activities and goals.	Launch Pilots address cultural differences in how the work of the launch pilot is framed, communicated and implemented.	Launch Pilots explore multiple funding streams to plan for sustainability.
Launch Pilots grow their networks and explore ways to measure the success of collaborative change.	The community uses leadership and communication strategies learned to build networks and connect organizations to new opportunities.	Local and regional networks expand and lessons learned contribute to the success of the NSF INCLUDES National Network.

NSF INCLUDES TEAMS AT THE NATIONAL SCIENCE FOUNDATION

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DIRECTORY

FY2016 COHORT 1	
1649082	***Indigenous Women Working Within the Sciences (IWWS)*** - *April Lindala* - Northern Michigan University MI
1649095	***Project in Partnership with HBCUs and TCUs*** - *Ivory A. Toldson* - Quality Education for Minorities Network DC
1649142	***STEPs to STEM*** - *Jannette Carey* - Princeton University NJ
1649161	***Alliance to Strengthen the STEM Tapestry (ASSisT): Motivating Critical Identity Shifts to Weave the STEM Disenfranchised into Science and the Sustainability Workforce*** - *Nalini Nadkarni* - University of Utah UT
1649192	***A Networked Improvement Community for Broadening the Participation of Black and Latino Youth in Computational Careers*** - *Margaret Honey* - New York Hall of Science NY
1649199	***CIRTL INCLUDES - Toward an Alliance to Prepare a National Faculty for Broadening Success of Underrepresented 2-Year and 4-Year STEM Students*** - *Robert D. Mathieu* - University of Wisconsin-Madison WI, Iowa State University IA, University of Pittsburgh PA, University of Texas at El Paso TX, Michigan State University MI, University of Georgia GA, University of California-Los Angeles CA
1649201	***Creating Academic Pathways in STEM (CAPS): A Model Ecosystem for Supporting Two-Year Transfer*** - *Sarah M. Miller* - University of Colorado at Boulder CO
1649206	***Georgia STEPS (Science, Technology and Engineering Partners for Success)*** - *Shawn Utley* - Wiregrass Georgia Technical College GA
1649210	***Coastal Almanac*** - *Julia K. Parrish* - University of Washington WA, Western Washington University WA, Oregon State University OR
1649214	***A Collective Impact Approach to Broadening Participation in the STEM Professoriate*** - *Howard J. Gobstein* - Association of Public and Land-Grant Universities DC
1649224	***WeC4Communites (We Compute for our Communities): Community-Focused Computing for Minoritized Youth*** - *Lori L. Pollock* - University of Delaware DE
1649226	***An Integrated Approach to Retain Underrepresented Minority Students in STEM Disciplines*** - *Suzanne E. Barbour* - University of Georgia GA, Florida International University FL, Savannah State University GA, Clark Atlanta University GA, Fort Valley State University GA
1649228	***Redefining Potential: the Upstate NY Design and Development Pilot for Diverse Student Populations*** - *Beth Olivares* - University of Rochester NY
1649231	***Early STEM Engagement for Minority Males through a Network of Minority Serving Institutions*** - *Jumoke O. Ladeji-Osias* - Morgan State University MD, SRI International CA, Jackson State University MS, Kentucky State University KY, North Carolina Agricultural & Technical State University NC
1649240	***STEM^3: Scaling STEM^2*** - *Mark S. Filowitz* - California State University-Fullerton Foundation CA
1649263	***Building Diverse and Integrative STEM Continua Using Socio-environmental Systems In and Out of Neighborhoods (DISCUSSION)*** - *Gregory D. Goins* - North Carolina Agricultural & Technical State University NC, North Carolina Central University NC
1649271	***Building upon CAHSI's Success to Establish a Networked Community for Broadening Participation of Hispanics in Graduate Studies*** - *Ann Q. Gates* - University of Texas at El Paso TX
1649277	***Computing for All Levels & Learners (SF CALL)*** - *Eric S. Hsu* - San Francisco State University CA
1649289	***A Program Designed to Recruit, Retain, and Train Hispanic Women in STEM Disciplines*** - *April H. Marchetti* - Randolph-Macon College VA
1649296	***Northern New Mexico STEM Mentor Collective*** - *Steven J. Cox* - Northern New Mexico College NM
1649297	***A National Network for Access and Inclusion in Physics Graduate Education*** - *Monica J. Plisch* - American Physical Society MD
1649298	***A Community Centered Approach to Improving STEM Pathways for Underrepresented Students*** - *Kimberly A. Lawless* - University of Illinois at Chicago IL
1649300	***Changing the Face of STEM in the U.S. Virgin Islands through Targeted Interventions to Expand Opportunities and Broaden Participation*** - *Kristin R. Wilson Grimes* - University of The Virgin Islands VI, Southern Utah University UT, Pennsylvania State University-University Park PA
1649310	***Early Engagement in Research: key to STEM retention*** - *Robert Newton* - Columbia University NY
1649312	***Mississippi Alliance for Women in Computing (MAWC)*** - *Sarah B. Lee* - Mississippi State University MS
1649320	***Consortium of Minority Doctoral Scholars (CMDS)*** - *Juan E. Gilbert* - University of Florida FL, University of Wisconsin-Madison Wi
1649323	***FIRST TWO: Improving STEM persistence in the first two years of college*** - *Sue A. Heatherly* - Associated Universities Inc/National Radio Astronomy Observatory DC
1649338	***Integrating Indigenous and Western Knowledge to Transform Learning and Discovery in the Geosciences*** - *Carolyn Brinkworth* - University Corporation For Atmospheric Research CO, Michigan State University MI, University of Arizona AZ

FY2016 COHORT 1	
1649342	***Expanding STEM to INCLUDE the Bottom Quartile of the Nation's K-12 Graders Through the Teaching and Learning of Mathematics*** - *Robert P. Moses* - The Algebra Project MA
1649344	***NSF INCLUDES: South East Alliance for Persons with Disabilities in STEM (SEAPD-STEM)*** - *Overtoun M. Jenda* - Auburn University AL, Alabama State University AL, Tuskegee University AL, Vanderbilt University TN
1649346	***Creating a Diverse STEM Pathway with Community Water Research*** - *Mohamad T. Musavi* - University of Maine ME
1649355	***Increasing Degrees Awarded to African American, Hispanic, Native American and Women Students in Engineering (50K Coalition)*** - *Karl Reid* - National Society of Black Engineers VA
1649361	***UTAH PREP*** - *Daniel Horns* - Utah Valley University UT
1649365	***WATCH US (Women Achieving Through Community Hubs) in the United States*** - *Judy L. Walker* - University of Nebraska-Lincoln NE
1649367	***Engaging Local Communities in Geoscience Pathways*** - *Cathryn A. Manduca* - Carleton College MN
1649377	***Supporting Women Advancing Through Technology*** - *Linda Christopher* - University of California-Irvine CA
1649378	***Enhancing the New Mexico STEM Pipeline*** - *Steven Stochaj* - New Mexico State University NM
1649380	***Bay Area Regional Collaboration to Expand and Strengthen STEM (RECESS)*** - *Renee Navarro* - University of California-San Francisco CA
1649381	***STEM Core Initiative*** - *Jim Zoval* - Saddleback College CA
1649384	***LEVERAGE, Strengthening the ASSIST Collaborative to Illuminate Engineering Faculty Pathways*** - *Anna M. Park* - Great Minds in STEM CA

FY2016 CONFERENCES	
1650289	***Envisioning Impact*** - *Kevin Brown* - National Opinion Research Center IL, TERC MA
1650390	***Conference on Multi-Scale Evaluation in STEM Education*** - *Louis J. Gross* - University of Tennessee Knoxville TN
1650433	***NextLivesHere: Social Change Innovation Summit*** - *Kathie Maynard* - University of Cincinnati OH
1650452	***Bridging Engineering Science and Technology (BEST)*** - *Brian Davis* - University of Akron OH
1650490	***Accelerating Data-Driven Collaboration for Large-Scale Progress*** - *Alexis N. Petri* - University of Missouri-Kansas City MO
1650508	***High-Leverage Problems, Useful Data, Formative Evaluation, Effective Communication*** - *Timothy Podkul* - SRI International CA
1650509	***The Technical and Human Infrastructure to Support Collective Impact of the INCLUDES Program at the Alliance and Network Levels*** - *Shirley M. Malcom* - American Association for the Advancement of Science DC
1650510	I***nforming the Design of the INCLUDES Alliances and National Network: An Intersectionality Approach*** - *Mimi E. Lufkin* - National Alliance for Partnership in Equity PA
1650516	***The Atlanta Backbone Organization Design Workshop: Computer Science Education Collective Impact Initiatives*** - *Caitlin Dooley* - Georgia Department of Education GA
1650533	***Supporting a Collective Impact Approach from the Bottom Up*** - *Robert P. Moses* - The Algebra Project MA
1650548	***Collective Impact as a Pathway to Reinvigorate Broadening Participation in STEM*** - *Kim E. Barrett* - University of California-San Diego CA
1650570	***California STEM INCLUDES Conference and Network*** - *Michael B. Dennin* - University of California-Irvine CA
1650575	***Conference to Advance the Collective Impact of Retention and Continuation Strategies for Hispanics and Other Underrepresented Minorities in STEM Fields*** - *Marjorie S. Zatz* - University of California-Merced CA

FY2017 COHORT 2 & SPECIAL AWARD	
1744411	***Water Network for Team STEM (WaNTS)*** - *Ming Wei Koh* - Pacific Resources for Education and Learning HI
1744431	***Aligning for Impact: Computer Science Pathways Across Contexts*** - *Caitlin Dooley* - Georgia Department of Education GA
1744436	***Growing STEM engagement and participation in Native Pacific Islander Communities*** - *John A. Peterson* - University of Guam GU
1744440	***Southeastern Compact for Inclusive Student Transitions in Engineering and Physical Sciences (SCI-STEPS)*** - *Keivan G. Stassun* - Vanderbilt University TN
1744445	***BEST BET: Broadening Experiences in Scientific Training-Beginning Enhancement Track*** - *Linda Hyman* - Boston University MA
1744446	***Diversifying Access to Urban Universities for Students in STEM Fields*** - *Alison Slinskey Legg* - University of Pittsburgh PA
1744455	***American STEM Alliance Network Improvement Community*** - *Melissa Dodson* - American Institutes for Research in the Behavioral Sciences DC
1744460	***Sustainability Teams Empower and Amplify Membership in STEM (S-TEAMS)*** - *Amy R. Tuininga* - Montclair State University NJ
1744463	***Building on Strengths - A Design and Development Launch Pilot to Broaden Participation in Mathematics*** - *Michael Young* - Iowa State University IA
1744467	***The Alabama Alliance for an Inclusive Middle Grades Computer Science Preparation through Makerspaces in the Alabama Black Belt Region*** - *Shaik Jeelani* - Tuskegee University AL
1744472	***IM STEM*** - *Mimi E. Lufkin* - National Alliance for Partnerships in Equity PA
1744474	***Indigenous Math Circles Communities*** - *David R. Auckly* - Kansas State University KS
1744477	***EMERGE in STEM: Education for Minorities to Effectively Raise Graduation and Employment in STEM*** - *Gregory H. Monty* - North Carolina Agricultural & Technical State University NC
1744479	***Capacity Building in Disaster Research for Scholars from Under-Represented Groups*** - *DeeDee Bennett* - University of Nebraska at Omaha NE
1744483	***American Indian Traditional Science Experience*** - *Aaron M. Thomas* - University of Montana MT
1744490	***Leadership and iSTEAM for Females in Elementary School (LiFE): An Integrated Approach to Increase the Number of Women Pursuing Careers in STEM*** - *Bruce G. Bukiet* - New Jersey Institute of Technology NJ
1744491	***Advanced Manufacturing Partnerships (AMP): Broadening Participation in New Hampshire's Workforce*** - *Palligarnai T. Vasudevan* - University of New Hampshire NH
1744497	***Statewide Consortium: Supporting Underrepresented Populations in Precalculus by Organizational Redesign toward Engineering Diversity*** - *Anand K. Gramopadhye* - Clemson University SC
1744499	***Diversifying Future Leadership in the Professoriate in Computing at Research Universities*** - *Valerie E. Taylor* - Texas A&M Engineering Experiment Station TX
1744500	***Increasing Minority Presence within Academia through Continuous Training (IMPACT)*** - *Comas I. Haynes* - Georgia Tech Applied Research Corporation GA
1744501	***Ecology Plus (Ecology+): Broadening Pathways to Ecological Careers through a Collective Impact Approach*** - *Teresa M. Mourad* - Ecological Society of America DC
1744502	***Expanding Diversity in Energy and Environmental Sustainability Through the Creation of Learning Opportunities for Minority Students in the Mid-Atlantic region*** - *Aristides Marcano* - Delaware State University DE
1744506	***Wabanaki Youth in Science (WaYS) Program to Bridge inclusion in Post-Secondary Education Through the Sciences*** - *Darren Ranco* - University of Maine ME
1744523	***Project SYSTEMIC (A Systems-Thinking Approach to STEM Ecosystem Development In Chicago)*** – *Natasha Smith-Walker* – Project Exploration, Chicago IL
1744524	***Building a Network for Education and Employment in Environmental Stewardship of Indigenous Lands*** - *Timberley M. Roane* - University of Colorado at Denver CO
1744526	***SPICE (Supporting Pacific Indigenous Computing Excellence) Data Science Program for Native Hawaiians and Pacific Islanders*** - *Kelly P. Gaither* - University of Texas at Austin TX
1744539	***Fostering Engineering Identity and Support Structures to Promote Entry and Persistence in Engineering for First-Generation Students*** - *Kyle D. Squires* - Arizona State University AZ
1744541	***Math FACESS (Families & Communities Empowering Student Success in Mathematics)*** - *Joseph L. Hastings* - Explora NM
1744543	***Sustaining Workforce Diversity in Emerging STEM Economies*** - *David K. Shintani* - University of Nevada at Reno NV
1764404	***ACCEYSS: Association of Collaborative Communities Equipping Youth for STEM Success*** – *Shetay Ashford* – Texas State University, San Marcos, TX
1748345	***SPECIAL AWARD -- The NSF INCLUDES Open Forum: A Platform for Collective Impact and Knowledge to Advance Broadening Participation in STEM*** - *Shirley M. Malcom* - American Association for the Advancement of Science DC

The Future of NSF INCLUDES

The NSF INCLUDES National Network is rapidly growing. Conferences, EArly concept Grants for Exploratory Research (EAGERS) and supplements are creating on-ramps for broadening participation stakeholders and other organizations to join and expand the NSF INCLUDES National Network. Soon, NSF will welcome the addition of the NSF INCLUDES Coordination Hub to help manage the partnerships that have formed within the Design and Development Launch Pilots (DDLPs) community as well as across the NSF INCLUDES National Network. The next step is to build on the activities of the Launch Pilots by welcoming the NSF INCLUDES Alliances. To stay up to date on NSF INCLUDES activities, visit us at: www.nsf.gov/news/special_reports/nsfincludes.

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Please let us know what you think! Email us at NSFINCLUDES@nsf.gov.

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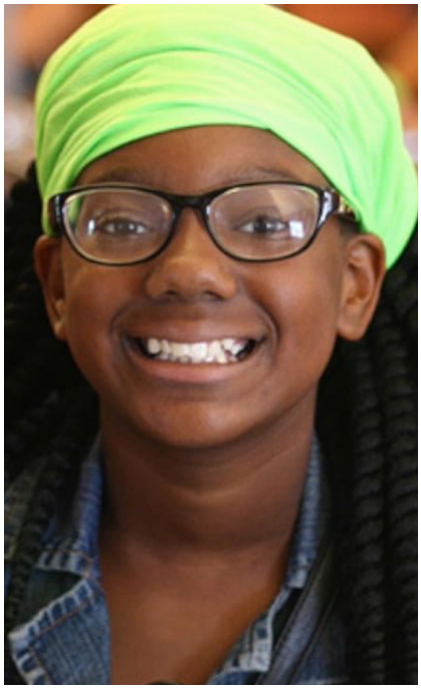
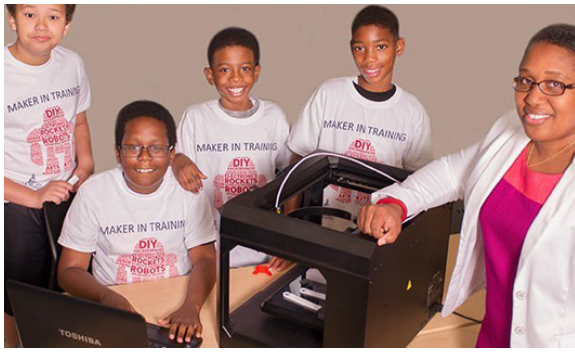




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