



Smithsonian

Science Education Center

STEM EDUCATION SUMMIT:

BUILDING A COALITION FOR ATTRACTING AND RETAINING A DIVERSE STEM TEACHING WORKFORCE

Hosted by the Smithsonian Science Education Center and Shell Oil Company

March 22-24, 2019 | New Orleans, LA

Demand for talented people trained in STEM disciplines is growing rapidly in the United States. According to the National Science Board's *Science and Engineering Indicators 2016* (NSB, 2016), between 2008 and 2014 the number of STEM occupations rose by about half a million, whereas the total workforce stayed relatively steady. Yet, minorities are deeply underrepresented in STEM fields, with the share of STEM degrees awarded to Hispanics in 2013 at just 11%, 9% to African Americans, 9% to Asian and Pacific Islanders, and only 1% to American Indians and Alaska Natives, compared to 62% of the share of STEM degrees awarded to Whites. This underrepresentation means that minorities may lack qualifications to access STEM-related jobs, which, in addition to being more plentiful, are also better paid than other jobs.

One important contributing factor to the underrepresentation of minority students in STEM fields is the lack of minority STEM teachers. According to the National Center for Education Statistics, students of color in 2012 made up more than 45% of PK-12 population, but teachers of color represented only 17.5% of the teacher workforce. Teachers of color also had a 24% higher turnover rate than their white counterparts.

This is simultaneously a challenge and an opportunity. To address this issue, the Smithsonian Science Education Center in collaboration with Shell Oil Company is working with a "Steering Committee" of experts on minority participation in teaching careers. The Steering Committee includes experts on PK-12 and postsecondary education, educators in adjacent areas (e.g., fine arts, nature), NGOs working in the field, membership associations, Minority-Serving Institutions (MSI), government, and others.

One action item set forth by the Steering Committee is to host a Summit in New Orleans, LA on March 22-24, 2019 to engage leadership teams from promising districts throughout the US who have identified problems of practice related to attracting and retaining a diverse STEM teaching workforce. This Summit will be a highly interactive 2.5 days, with a clear outcome at the end – developing district-specific "action plans" for recruiting and retaining minority STEM teachers to leadership roles while remaining in the classroom. **I am writing to you as a catalyst for change and invite you to participate.** To be considered for participation, please apply by December 31.

By increasing representation among STEM teachers, we will in turn increase the diversity of STEM students and subsequent career opportunities available to them. Together, we can make a difference.

Best,

Dr. Carol O'Donnell
Director
Smithsonian Science Education Center



TEAM APPLICATION FORM

What: The Smithsonian Science Education Center presents a STEM education summit funded by Shell Oil Company to build a coalition for attracting and retaining a diverse STEM teaching workforce.

Who: Teams of 3-5 educators united around an idea for attracting or retaining STEM teachers from diverse backgrounds in their locality. The ideal team will be composed of individuals possessing the following skills:

Skills	Examples
Change agents	District level administrators with an influence on teacher recruitment and/or retention: Human Resources, Science Education Leader
Access to data	Director of Measurement and Evaluation
Leadership	Building-level leadership: Principal, Assistant Principal
Content knowledge	Science Teacher/ STEM Teacher
Project management	Other interested parties: community member, project manager

When: March 22 – 24, 2019

Where: New Orleans, LA

Submit this form online (preferred): [The Smithsonian STEM Education Summit Registration](#)

Return this form by email: gainsbackk@si.edu

Application Due: **Monday, December 31, 2018 at 11:59 pm ET**

Selection Process:

The application process to attend this program is competitive. We are seeking 20 teams from around the country to attend the Summit. Applications will be scored based on the following categories:

- 1. Team composition** – Teams can be as small as three and as large as five members. Each team must include at least one practicing classroom teacher. Ideally teams will be comprised of a variety of individuals such as administrators, school staff, community members, parents, or local school and government officials including individuals who are empowered to make decisions in your school or district.
- 2. Clarity of Idea** – Extent to which the submission states the proposed idea for attracting or retaining STEM teachers from diverse backgrounds in a way that is understandable and shows forethought, both in development and implementation.
- 3. Range of Impact** – The potential impact in and beyond the classroom, school, or district on attracting or retaining STEM teachers from diverse backgrounds.
- 4. Populations Served** – The extent to which teachers from traditionally underrepresented populations may be served by the proposed idea.

Teams will be notified of their selection no later than Friday, January 18, 2019, and invited to attend the Summit in New Orleans, LA. Teams who are selected to participate will receive round-trip airfare to New Orleans, lodging, and meals served at the summit paid by Shell Oil Company and arranged by the Smithsonian Science Education Center.

Direct all inquiries to: Katie Gainsback, Program Manager
Smithsonian Science Education Center
gainsbackk@si.edu
202.633.2960

1—DISTRICT/SCHOOL INFORMATION

District/School you represent: _____

If School, District you reside within: _____

Street Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Characterize your school system: Rural Suburban Urban

Type of school: Public Independent Charter

To better understand the change you wish to see, we first want to understand the current state of your school or district. To that end, please answer the following demographic questions to the best of your ability.

How many schools are in your district? _____

How many teachers teach STEM subjects? _____

How long on average are STEM teachers remaining in the classroom? _____

How many students in your district are eligible to receive free or reduced-price lunch? _____

What percentage of students possess limited proficiency in English (EL)? _____

Race/ethnicity of students in your school system (raw numbers, rather than percentages where possible):

	Asian or Pacific Islander	American Indian or Alaska Native	African American or African (not of Hispanic origin)	Hispanic	Caucasian (not of Hispanic origin)	Other	Total
# of students by race/ethnicity							
# of STEM teachers by race/ethnicity							

Briefly describe the decision making process in your district. (Are decisions made at a district level? Do schools have individual autonomy regarding initiatives? Etc.) Do any members of your team have the authority to make decisions for your school/district? If so, who?

2—TEAM INFORMATION

Who will lead your team? The team leader serves as the main point of contact, spearheading their team’s efforts and ensuring the group meets all deadlines, if selected. The team leader will report to the SSEC on their team’s progress on a quarterly basis and should identify a co-lead to fulfill these responsibilities should they be unable to for any reason.

Name: _____ Position Title: _____

Organization: _____ Email Address: _____

Name	Position Title	Organization	Email Address	Role
<i>Co-lead</i>				Choose one or more: <i>Change agent</i> <i>Access to data</i> <i>Leadership</i> <i>Content knowledge</i> <i>Project management</i>
<i>Team member 3</i>				Choose one or more: <i>Change agent</i> <i>Access to data</i> <i>Leadership</i> <i>Content knowledge</i> <i>Project management</i>
<i>Team member 4</i>				Choose one or more: <i>Change agent</i> <i>Access to data</i> <i>Leadership</i> <i>Content knowledge</i> <i>Project management</i>
<i>Team member 5</i>				Choose one or more: <i>Change agent</i> <i>Access to data</i> <i>Leadership</i> <i>Content knowledge</i> <i>Project management</i>

3—IDEA SUBMISSION: WHERE YOU WANT TO GO

1. Based on the summit’s emphasis on increasing the diversity of STEM teachers, which area of work will your team focus on?

Attraction

Retention

3—IDEA SUBMISSION: WHERE YOU WANT TO GO, CONTINUED

2. What idea do you have to advance teacher recruitment or retention in your school or district, and how will attending the summit help you do that? Please include the following information in your description: (1) the problem or opportunity you see; (2) your idea for addressing the problem or opportunity.

3. How will this improve educational outcomes for traditionally underserved populations in your community?

4. Which teachers will benefit from this work?
 Early Childhood K-3 4-6 7-9 10-12 Post-secondary

5. What role will teachers play in supporting and leading this work?

6. Why is this work important to your district, your school, and your Summit team?

7. What potential obstacles do you foresee in implementing your idea?

8. Based on your idea, what would success look like in your district? Choose a Key Performance Indicator (KPI) you will use as a measure of success.
 - % new resources or activities that are specifically targeted at people of color in STEM to become educators
 - % of STEM teachers of color that enter the teaching pipeline after intentional and direct outreach from implementing school district
 - Number of applications from people of color to open teaching positions
 - Improved perception about teaching as a career option in local communities
 - % of people of color that pursue STEM teaching careers after participating in pre-college programs
 - % of STEM teachers of color that stay at a school district for more than 2, 5,10 years
 - Increased retention rates for STEM teachers of color at implementing districts

9. Who have you talked to that is supportive of or interested in your idea? How may they be an asset to your team?