

# ASPIRE



*Active Societal Participation In Research and Education*

RFP Webinar  
May 16, 2018

Please mute your mic and turn off your camera until the final Q&A session.

# Webinar Outline

- ▶ ASPIRE Team Introductions
- ▶ Introduction to ASPIRE (10 mins)
- ▶ ASPIRE Questions (5 mins)
- ▶ Review of RFP (10 mins)
- ▶ RFP Questions (5 mins)
- ▶ Project Implementation and Outcomes (10 mins)
- ▶ Project Questions (5 mins)
- ▶ Additional questions

# Webinar Guidelines

- ▶ Please mute your microphone and turn off your video.
- ▶ Questions for each of the individual sections may be submitted via the chat function in Zoom.
- ▶ For each section we will select the most common questions and provide answers to those questions.
- ▶ Verbal questions may be submitted during the final 15 minutes of the webinar. Use the raised hand function in Zoom and we will note the order in which hands were raised.

# ASPIRE Team

- ▶ Principal Investigators
- ▶ Corey Garza (California State University, Monterey Bay)\*
- ▶ Lora Harris (University of Maryland Center for Environmental Science)\*
- ▶ Julia Parrish (University of Washington)
- ▶ Julie Posselt (University of Southern California)
  
- ▶ Evaluators
- ▶ Emily Knaphus-Soran (University of Washington)\*
- ▶ Elizabeth Litzler (University of Washington)

\*On webinar today

# Problem Statement



Persistent lack of diversity in the Geosciences

Lacking relevance in UR/US communities

- as a way of solving problems
- as a valid career track

# Diversity Data for the Geosciences

- ▶ Current NSF statistics: **8%** of Geoscience graduate students are underrepresented (NSF 2016).
- ▶ Biological Sciences slightly higher percentage, **12%**.
- ▶ Whole number comparison: **1,303** total underrepresented in Earth, Atmospheric and Ocean Science, **9520** in the Biological Sciences.

# NSF GOLD

## Geo Opportunities for Leadership in Diversity

- New NSF program designed to address persistent lack of diversity in the Geosciences.
- “Seeks to cultivate a new generation of leaders within the geosciences research and education communities who have the passion, the knowledge, the skills, and the tools to catalyze high-impact efforts to broaden participation of traditionally underrepresented minorities in the geosciences education pipeline and workforce”.

# GEO-GOLD Ideas Lab



- ▶ March 21-March 25, 2016 Geo IDEAS Lab held in Annapolis, Maryland.
- ▶ 30 participants from the Geosciences, Social Sciences and Education.
- ▶ Initial project ideas developed.
- ▶ 5 project proposals selected for funding.



# ASPIRE

## (Active Societal Participation in Research and Education)

- ▶ Uses place based science as a vehicle to bridge underserved communities and the Geosciences.
- ▶ Uses the working group model as a forum for linking underserved communities with the geosciences.

# Starting Points



## NCEAS

National Center for Ecological Analysis and Synthesis

*The NCEAS process and its results have transformed scientific culture, informed environmental policy and directly helped shape complex natural resource management decisions.*

### **NCEAS FAST FACTS:**

- Engaged **6000 scientists and experts** from 57 countries in Working Group collaborations
- Supporting more than **500 Projects** proposed by the science community
- Published more than **2,200 peer-reviewed scientific articles**
- Ranked in the **Top 1%** of institutions in ecology and environment science worldwide
- **2 of the Top 3 most influential publications** on ecological response to climate change were NCEAS Working Group products
- **More than 20 synthesis centers** have emulated the successful NCEAS model.



**Lessons:** Street-cred w/in science!!! Little (no?) reach into communities

# ASPIRE

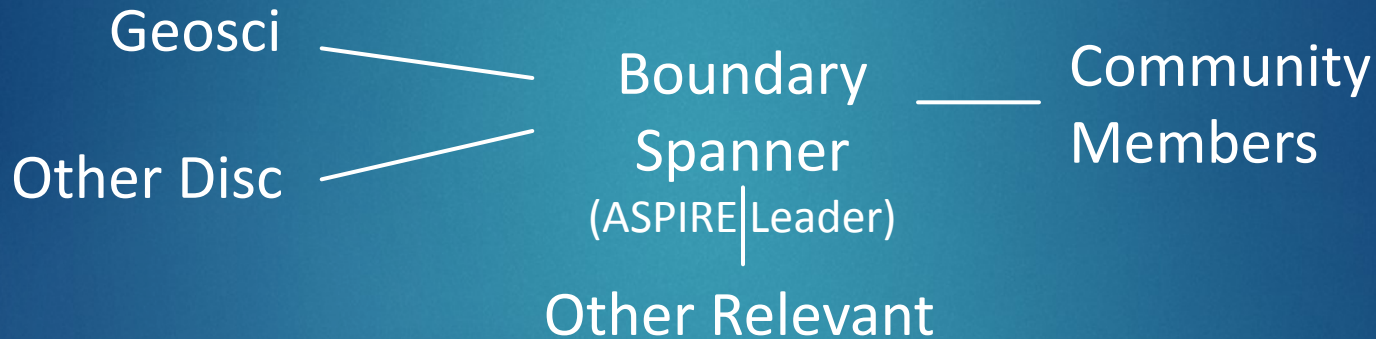
## (Active Societal Participation in Research and Education)

- ▶ Uses the concept of a “Boundary Spanner” within each working group to link the Geosciences with diverse communities.
- ▶ Boundary spanner facilitates a “virtuous exchange” between communities and geoscientists.
- ▶ ASPIRE looks to increase discovery space for the Geosciences and solution space for diverse communities

# Mobile Working Groups

## *Constitution and Roles*

- 8-12 members
- meet 2-4 times per year
- meet in the community space, and at their invitation



**Boundary Spanner:** a foot in both worlds; protects the integrity of the community, prevents against exploitative science; promotes community ways of knowing; promotes access to (geo)science; translates and brokers in both directions; leads the group without dictating specific actions or outcomes while pulling/pushing towards a currency-based goal

# Pilot Phase

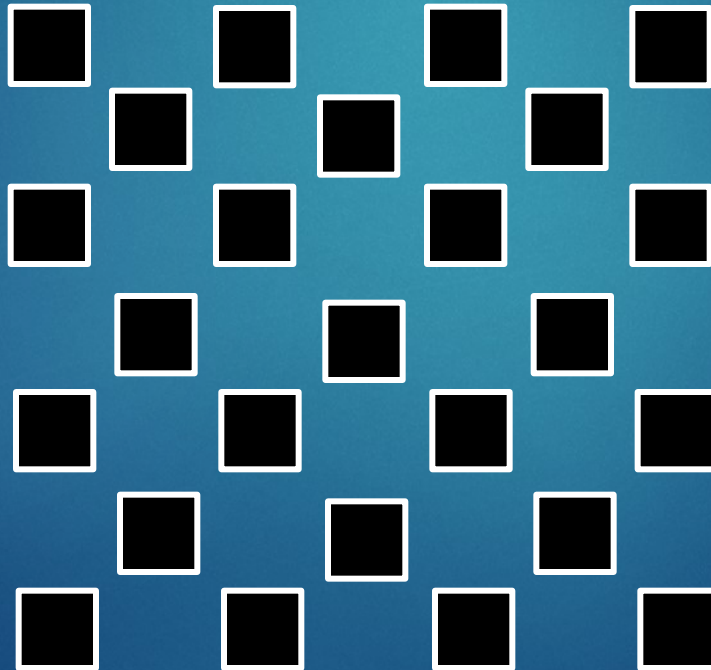
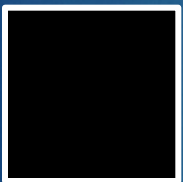
ASPIRE “virtual”



- local-level lessons – does it work?
- Boundary Spanners – maximizing leadership

# Full Actuation

ASPIRE “actual”



local-level lessons –  
how does it work?



emergent patterns:

- leadership space
- discovery space
- solutions space

# Pilot Phase

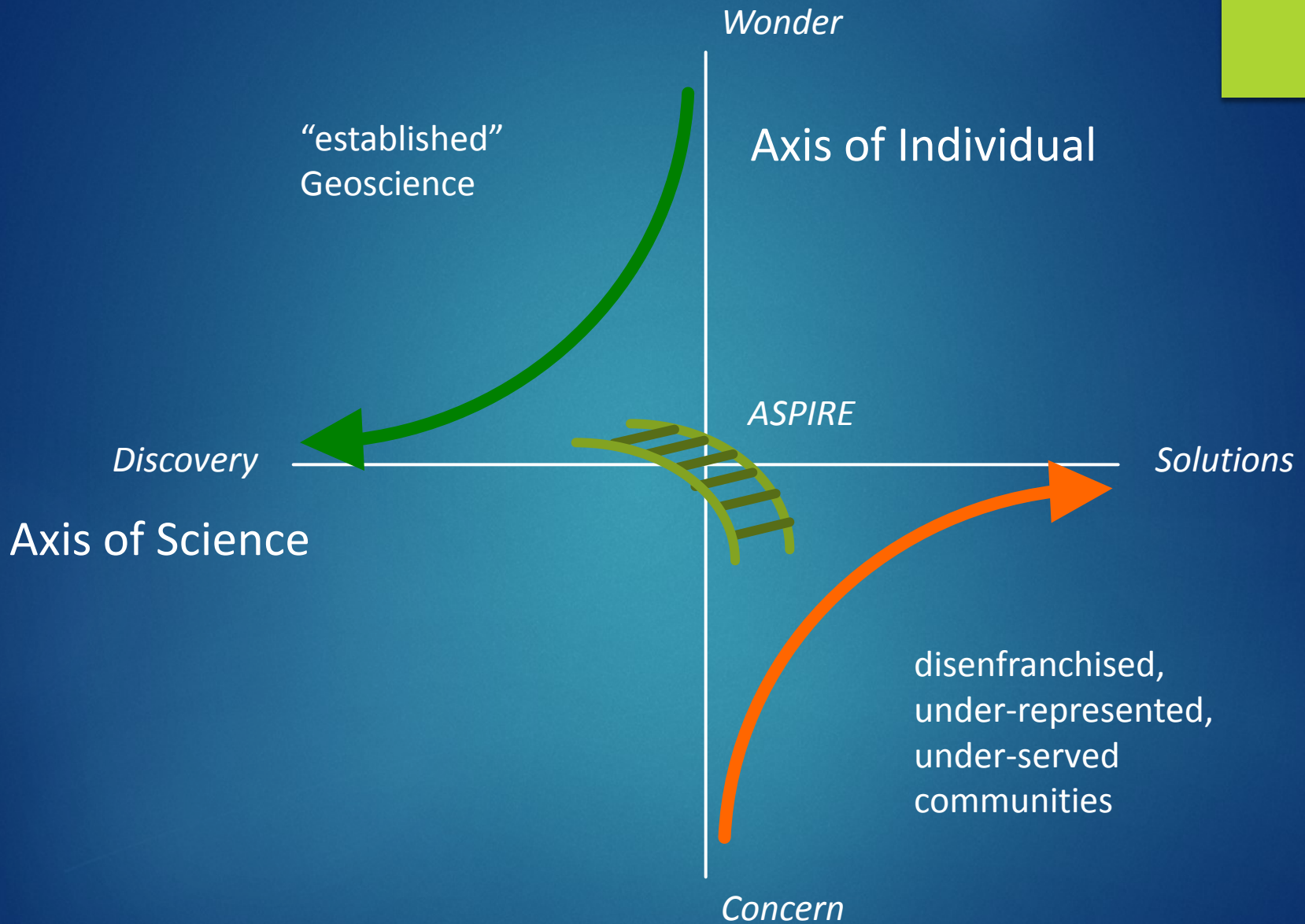


Data Mining: Assemble cases and synthesize best practices  
(identify trends and emerging training needs)

Identify Boundary Spanners, Test Mobile Working Group Model

Create (nascent) Boundary Spanner Network

Evaluate Leadership Gain of Boundary Spanners



# Wows!!

***Broadening Participation:*** Revolutionary shift in problem origin – **direct and substantive community involvement** – place-based, community relevant, community-driven problem/issue

***Leadership:*** Emergent and distributed leadership – **discovering the profile** of boundary spanners as emergent leaders, boundary spanners as nextgen **cultivators**

***Geosciences:*** Long-term potential for **reframing and rebranding** the geosciences as societally relevant at local to global scales – **expanding the discovery and solutions science space**



# Emerged Leaders



## NCEAS

Data Mining  
Data Analytics

## Emerged

Big Data Scientists

## ASPIRE

Creativity  
Productivity  
Confidence  
Networks  
(New Geoscience Discovery  
and Enhancing Diversity)

## Emerged



# Current Projects

- ▶ *Groundwater Sustainability for Small Farmers of O'ahu (University of Hawaii, Jennifer Engels)*
- ▶ *Los Angeles Water Quality Monitoring Mobile Working Group (California State University, Los Angeles, Andres Aguilar)*
- ▶ *Increasing Environmental Awareness and Citizen Participation in Sioux Nation Tribes of South Dakota (LDEO, Columbia University, Benjamin Bostick and Cassie Xu)*

# Long Term

- Moving the Geosciences into new discovery spaces will in part require bringing in diverse talents and perspectives.
- Leadership that understands the benefits of diverse talent and how to cultivate talent is crucial.
- A successful partnership between new talents and leadership can result in potential but as of now, unknown benefits for the Geosciences.



# ASPIRE Introduction Questions?



# RFP Components

July 16 and October 15, 2018  
Deadlines

# RFP Components

- ▶ *Background and Rationale: Provide an overview of the geoscience problem, community, and rationale for using the MWG approach to implement participatory research.*
- ▶ *Mobile Working Group Teams: Detail membership in the mobile working group and projected roles for members. Identifying information regarding affiliation and contribution for members should also be included here.*
- ▶ MWGs should be composed of 8-12 total members: the Boundary Spanner, 3-6 members of the Geoscience and other relevant academic disciplines as needed, and 2-4 members of the focal community. It is anticipated that the MWG will include participation by members of groups historically underrepresented in the Geosciences. These may include, but are not limited to, members of African-American, Chicanx/Latinx, Native Alaskan, Native American, and Pacific Islander communities.

# RFP Components

- ▶ *Mobile Working Group Goals: Briefly outline goal(s) for MWG (e.g. solutions based outcomes, products, partnerships)*
- ▶ *Implementation Plan: Provide information regarding how the MWG will function to accomplish aforementioned goal(s), including a plan for communication and attention to features that may be key to implementing a “virtuous exchange” in community. Describe community engagement plan.*
- ▶ *Societal relevance: Conclude each proposal with a summary paragraph outlining the societal relevance of the goals and likely products from the MWGs.*

# RFP Components

- ▶ Letters of Commitment: *Letters of commitment from key MWG members must be included in the letter demonstrating that the work to begin a virtuous exchange has begun at this planning proposal stage.*
- ▶ Budget and Budget Justification: *Provide a budget of costs associated with the MWGs and include justification for all costs. No indirect costs are allowable. Please note that this work will be supported through reimbursements made by California State University, Monterey Bay to the MWG lead, not as a separate award to your institution.*
- ▶ CVs for known MWG members.



# RFP Components

- ▶ Budget cont...
- ▶ MWG budget \$10,000-\$13,000. Supplements available pending availability of funds.
- ▶ Up to \$2000 can be allocated as stipend for the MWG lead.
- ▶ Funds can be used to provide honorarium for MWG participants. Especially encouraged to allocate honorarium to community participants.
- ▶ Supplies and services funds can be requested. Should be related to goals of MWG.
- ▶ Student funding allowed. Up to \$500 for grad student, up to \$300 for undergraduate.
- ▶ Travel is allowed.
- ▶ Capital equipment (equipment greater than \$4,999) not allowed.

# RFP Components

- ▶ MWG Examples
- ▶ A synthetic topic (e.g., sea level rise and remediation in marginalized coastal communities). In this scenario, the Boundary Spanner has ties to at least one such community, and the MWG meets in that community at least once to both put a public face on the issue (which should translate forward into the scholarly publications of the MWG) and to translate the science into the community. The MWG can opt to continue to work physically in that community, or in an academic or lab location (or virtually).

# RFP Components

- ▶ A specific community-scale problem/issue (e.g., sea level rise, extreme weather and climate forcing applied to Hurricane Katrina and the impacts on marginalized neighborhoods in New Orleans). This requires that the Boundary Spanner be well connected to the community, well-versed on the issue and with a good start on the primary science such that the MWG augments the work.

# RFP Components

- ▶ An issue where geoscience meets environmental justice broadly across underserved and underrepresented communities (e.g., global warming and climate impacts in marginalized communities). In this case, meetings could be held at a national conference (e.g., SACNAS or AGU) rather than in a specific community. However, members of the impacted community should be included in the MWG activities.



# RFP Components Questions?



# MWG Implementation and Outcomes

# MWVG Implementation and Outcomes

- ▶ Meet with the PIs, virtually at the start, and in-person during the Synthesis phase.
- ▶ Projects funded for one year.
- ▶ MWVG Leaders may be requested to voluntarily participate in social science research efforts by discussing their work over 1-2 hours with a member of the PI team. As part of this effort the MWVG lead would be asked to maintain a research log documenting and reflecting on their experiences with the Boundary Spanner role and MWVG process.

# MWG Implementation and Outcomes



- ▶ Participate in one 45-minute phone interview as part of the ASPIRE evaluation. This interview will contribute to an assessment of the ASPIRE MWG model and improvement of support provided by the ASPIRE team.
- ▶ Submit a plan outlining the proposed issue/problem, suggested participants, meeting schedule, and proposed outcomes for both science and the community. Additional/alternate participants may be suggested by the PIs in consultation with the Boundary Spanner, and as (s)he requests given the specifics of the issue/problem and community.



# MWG Implementation and Outcomes



- ▶ Participation in virtual meetings with the ASPIRE PI group is requested.
- ▶ Delivery of a report outlining successes and challenges of the MWG.
- ▶ Presentations, community documents (strategic plan or other planning documents), peer reviewed manuscripts are all considered valuable deliverables associated with this work.



# MWG Implementation and Outcomes

Questions?

# Open Q&A Session

# Webinar Materials and Contact

- ▶ Webinar materials (video recording and PowerPoint) will be posted at:
- ▶ ASPIRE Site
- ▶ <https://csumb.edu/cme/active-societal-participation-research-and-education>
- ▶ NSF GOLD Site
- ▶ <https://cpaess.ucar.edu/gold>
- ▶ Additional questions may be sent to:  
[cme@csumb.edu](mailto:cme@csumb.edu)



Thank You  
from  
ASPIRE