Active Societal Participation in Research and Education (ASPIRE)

Mobile Working Group Request for Proposals

Program Summary:

Active Societal Participation In Research and Education (ASPIRE) aims to cultivate a generation of geoscientists with the leadership knowledge and skills, scholarship, and material support to reframe and rebrand the geosciences (Atmospheric, Earth, Ocean and Polar Sciences) as socially relevant and, thereby, to broaden participation in these fields. This generation of geoscientists will do so by using their work to bridge longstanding divides that impede access to and inclusion in the geosciences: between basic and applied science, between scholars in the academy and members of historically marginalized communities, and between the places where science is needed and the places where it is typically conducted. Among NSF disciplines, the Geosciences has some of the lowest participation rates by underrepresented students with approximately 8% of current graduate students in the Geosciences identifying as being a member of an underrepresented group (NSF 2016). Participation by members of underrepresented groups further declines at the postdoctoral and faculty levels. In light of these trends, new models are needed to increase participation by groups that historically have not comprised the majority of the Geosciences workforce to sustain the U.S. Geoscience workforce and further new discoveries and innovative applications of Geoscience to society at large.

To bring about these types of change, we draw upon, refine, and institutionalize the working group model as the Mobile Working Group (MWG), directly referencing the need to move outside of the "ivory tower" and into the community. Led by a geoscientist whose background gives them one foot in the academy and the other in the community - the Boundary Spanner - each MWG will focus on a single issue linked to a single community. ASPIRE supports multiple MWGs working across the geographic and cultural spaces, as well as across the body of geoscience research and application.

This document calls for proposals from the Geosciences community for new MWGs that embody these principles to participate in the demonstration phase of this newly launched ASPIRE effort. ASPIRE is funded by an award from the National Science Foundation to Lead Principal Investigator Dr. Corey Garza (CSUMB) and collaborating PIs Drs. Lora Harris(UMCES), Julie Posselt (USC), and Julia Parrish (UW). Proposals will be evaluated by this team and awarded according to a variety of metrics that include scientific merit *and* participation in underrepresented communities, strength of the implementation plan for the MWG itself, and a need in this pilot phase to have representation across the geosciences. A total of $118,500 is available to be distributed across 9 demonstration MWGs selected from proposals. Individual awards will vary from $10,000-$13,000. Up to $2,000 of any single award may be allocated to the MWG lead as a stipend. Funding requests above $13,000 may be requested as part of this RFP. Provide a detailed explanation of the need for additional funding above $13,000 in the budget justification.

The Mobile Working Group

To bring about change, we draw upon, refine, and institutionalize the working group model (Hampton and Parker 2011) which brings academics and professionals together in an intensive, immersive environment to work on questions of interest using a synthetic (i.e., conceptual, meta-analytic, or "big data" computational) approach. First employed by the National Center for Ecological Analysis and Synthesis (NCEAS), ASPIRE adapts this structure, as the Mobile Working Group (MWG), directly referencing the need to move outside of the "ivory tower" and into the community. MWGs bring together community members and selected geoscientists and other professionals (as needed) around a particular issue or problem in-community with solution potential in the geoscience synthetic research space. Led by a Boundary Spanner, each MWG will focus on a single issue linked to a single community. ASPIRE supports multiple MWGs working across the geographic, ethnographic and "in practice" community space, as well as across the body of geoscience research and application. MWGs work primarily from extant information, held within science and within community, and attempt to synthesize the information in ways that are beneficial to science and to community. Most critically, MWGs seek to identify, clarify, inform, synthesize, question, or answer geoscience issues that are societally relevant through relationship and participation by both community and scientists. ASPIRE seeks projects that will implement these interactions and problem-solving activities through the “virtuous exchange”, a process that respects and is sensitized to different ways of knowing and perspectives; insuring that benefits are ethically considered and participation is meaningful and respectful for all MWG members. This necessarily translates to the importance of MWG composition and consideration of equity issues within the tasks and activities for the proposed project. Integrating the proposed geoscience topic within a participatory research context in community must avoid the “colonizing” approach of some western science to engage with underrepresented groups (Deloria and Wildcat 2001).

MWGs will be composed of 8-12 total members: the Boundary Spanner, 3-6 members of the Geoscience and other relevant academic disciplinary traditions as needed, and 2-4 members of the focal community. Note that depending on the focus of the MWG, some of these roles may coalesce into individual people. Within the geosciences, members must be excited by both the scientific issue/problem as well as the in-community approach.

Each MWG will be centered on a Boundary Spanner: a member of the geoscience community resident within an academic program as a faculty member. Boundary Spanners have pre-existing connections to geographically and culturally defined communities, and a pre-existing interest in extending/deepening their science into that community as one way of bridging the discovery solutions science gap. Incentive is provided through: a budget to support work by the MWG (including but not limited to; honorarium support for Boundary Spanners, travel support for all MWG members, and centralized logistical support for the effort all billable to CSUMB), co-authorship on ASPIRE manuscripts, networking opportunities, and the status of being a part of the inaugural NSF GEO GOLD effort. If selected, available and willing to participate, Boundary Spanners will agree to:

1. Participate in social science research efforts by discussing their work over 1-2 hours with a member of the PI team and maintaining a research log documenting and reflecting on their experiences with the Boundary Spanner role and MWG process.
2. Meet with the PIs, virtually at the start, and in-person during the Synthesis phase.
3. 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.

4. 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.
5. Include at least one NextGen (e.g., postdoctoral associate, assistant professor) Boundary Spanner in the MWG.
6. Act as a spokesperson for the community transferring information about community currencies, and community benefits from the MWG.

The MWG concept is meant to be flexible within the bounds of work that advances solutions-based geoscience, and increasing the stature and agency of Gate-openers within the geoscience community. As examples, a MWG could be convened around:

- 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).
- 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 but does not conduct primary research.
- 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.

Logistics - The PIs, led by Garza, will work with Boundary Spanners to refine a linked logistics program and budget that accommodates the problem/issue and facilitates likely success. This may include shaping MWG membership, meeting location(s), and the balance of physical versus virtual meetings. A part-time staff position located at CSUMB will assist MWG in all travel-related logistics and in securing any needed equipment and supplies (e.g., AV equipment, computers) needed to facilitate group work. At the start of each MWG, the Boundary Spanner will set up one-to-several virtual meetings of the Geoscience members of the team (including the participating PI), to cover initial scientific scoping and relevant social and cultural conduct. Finally, the Boundary Spanner and the participating PI will work cooperatively on adaptive management of MWG product progress, ensuring that the Boundary Spanner does not fall victim to an untoward workload.

Timeframe and Deliverables

Proposals will be accepted through March 16, 2018. Review of proposals will occur promptly in order to facilitate the start of MWGs by April 16, 2018. It is expected that MWG projects will be completed on or about April 16, 2019. All proposals should be submitted through the application portal on the main ASPIRE page (https://csumb.edu/cme/active-societal-participation-research-and-education) following formatting guidelines outlined below.

Deliverables and activities expected from this project include:

- Participation in ASPIRE associated social science research (1-2 hour discussion with a PI and maintenance of a research log).
- Participation in in virtual meetings with the ASPIRE PI group is requested.
- Delivery of a report outlining successes and challenges of the MWG is also requested.
- Presentations, community documents (strategic plan or other planning documents), peer reviewed manuscripts are all considered valuable deliverables associated with this work.

Proposal Format

Applications for MWGs to ASPIRE should be no longer than 8 pages of text plus accompanying letters of commitment and budget materials to include the following components:

1. Background and Rationale: *Provide an overview of the geoscience problem, community, and rationale for using the MWG approach to implement participatory research.*
2. 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.*
3. Mobile Working Group Goals: *Briefly outline goal(s) for MWG*
4. 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.*
5. Societal relevance: *Conclude each proposal with a summary paragraph outlining the societal relevance of the goals and likely products from the MWGs.*
6. 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.*
7. 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.*
8. CVs for known MWG members.

Proposals should be submitted by October 15, 2018 at https://csumb.edu/cme/active-societal-participation-research-and-education

If you have any questions or requests for technical assistance during the application process contact us at cme@csumb.edu or 831-582-3496.

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References

Deloria Jr., V., Wildcat, D.R. *Power and place: Indian education in America*. (Fulcrum Pub., Golden, CO, 2001).

Hampton, Stephanie E., and John N. Parker. Collaboration and productivity in scientific synthesis. *BioScience* 61.11 (2011): 900-910.

National Science Foundation, Survey of graduate students and postdoctorates in science and engineering . 2016. https://ncsesdata.nsf.gov/gradpostdoc/2016/)