The National Academies of
SCIENCES · ENGINEERING · MEDICINE

Bridging Knowledge to Action: Using Data to Develop Equitable Outcomes or Solutions to Climate Hazards and Other Disasters

FULL PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

The Gulf Research Program staff evaluated all LOIs submitted under this request for proposals (RFP) for relevance, engagement and impact, project team composition, and compliance with eligibility requirements. Based on this evaluation, GRP invited a select number of LOI applicants to submit a full proposal. The deadline to submit a full proposal is August 27, 2021.

ELIGIBILITY
Only applicants invited by the GRP after the LOI review phase are eligible to apply.

SUMMARY OF THIS FUNDING OPPORTUNITY
The Gulf Research Program is developing new programming around health and community resilience that prioritizes the needs and challenges of communities that are disproportionately at risk from climate hazards or other disasters. This funding

opportunity is an important step in understanding what methods or approaches could be used to effectively address the priorities or needs of these at-risk communities.[1]

Specifically, the Gulf Research Program is seeking projects that demonstrate how the use of open and accessible data could help state/local/tribal governments achieve more equitable outcomes associated with climate hazards or other disasters.

The GRP expects to award six projects under this funding opportunity. Applicants may request up to $300,000 for projects that are up to 18 months in duration.

This funding opportunity has two stages:
1. Stage I: Applicants submit a Letter of Intent (closed)
2. **Stage II: GRP-invited applicants submit a full proposal.**

THE CHALLENGE

When confronting challenges associated with climate hazards or other disasters, local governments often lack the capability to effectively use science and data in planning and decision-making processes, despite an abundance of data and decision-support tools. This is especially true when it comes to using science and data to address the disproportionate impacts that climate hazards and other disasters have on a population's most at-risk communities.

As a result, decisions that address impacts from climate hazards or other disasters may be based on incomplete, insufficient, or inappropriate data which could produce plans, policies, strategies, programs, etc. that do not adequately address the priorities or needs of at-risk communities. At worse, decisions could result in negative, unintended consequences.

PURPOSE OF THIS FUNDING OPPORTUNITY

The purpose of this funding opportunity is to support collaborative efforts between subject matter experts and state/local/tribal governments working in the GRP's geographic regions to utilize open and accessible data to apply an equity[2] lens to an existing plan, policy, strategy, program, etc., that would potentially result in more equitable outcomes for communities that are disproportionately at risk from the impacts of climate hazards or other disasters.

Specifically, the GRP seeks projects that demonstrate how the use of data can help state/local/tribal governments achieve more equitable outcomes associated with climate

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[1] For purposes of this funding opportunity, *at-risk communities* are subgroups of the population that are vulnerable, underserved, under-resourced, or otherwise marginalized.

[2] For the purposes of this funding opportunity, "equity" is defined as "the fair treatment, access, opportunity, and advancement for all people, while at the same time striving to identify and eliminate barriers that have prevented the full participation of some groups," from Kapila, M., Hines, E., & Searby, M. 2016. "Why Diversity, Equity, and Inclusion Matter." *The Independent Sector*. Available at https://independentsector.org/resource/why-diversity-equity-and-inclusion-matter/#:~:text=Equity%20is%20the%20fair%20treatment,full%20participation%20of%20some%20groups. Accessed (May 20, 2021).

hazards or other disasters in order to address the needs or challenges of communities that are disproportionately at risk.

Applicants are encouraged to submit innovative project ideas.

Each project will produce three deliverables:
1. A case study that documents the collaborative planning process of using data to 1) inform decision making, and 2) apply an equity lens to an existing plan, policy, strategy, program, etc. The case study should identify lessons learned (both successes and challenges) about and effective strategies for engaging local government and other stakeholders; using data to inform decision making; applying an equity lens to an existing plan, policy, strategy, program, etc.
2. An equity-informed plan, policy, strategy, program, etc. that was developed through the proposed project.
3. An analysis that examines the similarities and differences between the original and equity-informed plan, policy, strategy, program, etc., including a discussion about the government partners' reflection on the planning process, output, and potential outcomes (e.g., did the project enhance, improve, or influence their decision making? Could the implementation of the equity-informed plan, policy, strategy, program, etc. produce better outcomes for community?).

The GRP will share these three deliverables with other communities interested in using data to incorporate equity into their plans, policies, strategy, programs, etc.

APPLICATION SUBMISSION AND REVIEW
This funding opportunity will have two review stages:
1. Letter of Intent (closed)
2. Full Proposal, by invitation only (open)

Project directors should review the application preparation and submission instructions and submit any questions to gulfgrants@nas.edu prior to the submission deadlines. The Gulf Research Program strives to respond to applicants' questions within two business days, but cannot guarantee that applicants' questions will be answered before submission deadlines.

Please review the Grant Agreement (see the "Grant Resources" page) prior to submitting an application to understand the terms under which the grant is offered. If selected, successful applicants are strongly encouraged to sign the Grant Agreement as presented. Per the policy of the National Academies of Sciences, Engineering, and Medicine, modifications to the Grant Agreement are only made under the most exceptional circumstances.

FULL PROPOSAL GUIDELINES
Only invited applicants can submit a full proposal for this funding opportunity, which must be submitted via the online application system. Full proposals submitted by other means (e.g., mail, fax, or email) will not be considered. Full proposal materials must be submitted in English. All complete proposals will be reviewed by an external review panel and evaluated using the Merit Review Criteria.

The full proposal must provide the following information:

I. Project Team:
    a. Project director
        i. ORCID (Open Research and Contributor ID)
    b. Key personnel
    c. Involvement of project director or key personnel in other applications related to this funding opportunity

II. Project Details:
    a. Project Title (maximum 15 words)
    b. Project Acronym (if applicable)
    c. Project Key words (maximum 10 words)
    d. Primary Project Location or Region
    e. Project Abstract (maximum 250 words). Please provide an overview of the proposed project written for a scientifically or technically literate lay person.
    f. Specific state, local, or tribal government partner (maximum 15 words).
    g. Briefly describe each data set or decision-support tool that will be used in this project.
        i. Name of dataset or data tool;
        ii. Weblink to dataset(s) or data tool(s), if available;
        iii. Brief description of dataset(s) or data tool(s), including the original source of the data;
        iv. Brief description of new dataset(s) or data tool(s) to be developed, if applicable.
    h. Project Description and Approach (maximum 5,000 words).
        i. Brief description of the project location (e.g., city town, parish) where this project will be implemented;
        ii. Specific state/local/tribal government partner agency, department, office (e.g. mayor's office, emergency management, housing and community development, planning, transportation, public health, etc.), including other community stakeholders who may participate in the project;
        iii. The method or approach the applicant will use to engage the state, local, or tribal government in the planning or decision making process;
        iv. The existing plan, policy, strategy, program, etc. that will be examined;
        v. The potential data source(s) or decision-support tool(s) proposed for use in the project and why these data/tools are relevant to the project;
        vi. Hyperlink to each data source or decision-support tool, if available;
        vii. How the project will address equity within the context of climate hazards or other disasters;

        viii. How the at-risk community would potentially benefit from the equity-informed plan, policy, strategy, program, etc. that will be developed; and

        ix. Potential challenges or barriers to complete the project.

i. Project Timeline, including major milestones (maximum 500 words). Provide either a:

    i. Narrative of the timeline, or

    ii. GANTT Chart. Applicants may upload a GANTT chart of major project activities.

j. Project Assessment (maximum 500 words). What does success look like for your project and how will it be measured?

k. Potential for Impact (maximum 100 words). Describe how the outcomes of this project could be useful to other communities. (maximum 100 words)

l. Data Management Plan (maximum 500 words). Please refer to GRP's Data Management Policy for guidance on the development of the project Data Management Plan.

III. Proposed Budget

a. Total Budget Requested

b. **Budget Justification:** Please submit a budget justification. A sample document is provided.

c. **Budget Form:** Download the budget template. Complete this form to provide information on the proposed budget. Budget requests should be developed commensurate with the support needed to achieve the project goals.

IV. Other Attachments

a. **Letter of Support:** The letter of support from the state/local/tribal government partner is required and should detail a commitment to working with the Applicant and Project Director, describe any previous experience in collaborating with the applicant/project director, and the role of the state/local/tribal government partner in the project.

b. **Resume(s):** Resumes are only required for the Project Director and every individual identified as a Project Team member. Resumes may not exceed two pages per person. See resume specifications for additional guidance. All resumes should be combined and uploaded as a single PDF document. Do not include resumes for individuals not named as a Project Director or Project Team member.

c. **Collaborators and Other Affiliations Form:** The purpose of this form is to help the GRP eliminate potential conflicts of interest during reviewer recruitment. Download the form and complete it to provide information on the following:

    i. All persons (including their current organizational affiliations) who are currently, or who have been collaborators (i.e. an individual with whom you work closely to co-design or conduct a project) or co-authors with the individual on a project, book, article, report, abstract, or paper during the 48 months preceding the submission of the application.

    ii. The individual's own graduate and postdoctoral advisor(s) and their current organizational affiliations.

        iii.   A list of your past and current advisees (including their current organizational affiliations)

    d. **Current and Pending Support from Other Sources Form:** [Download](#) the form. Applicants must provide information on the current and pending support of the project director, and other Project Team members, if applicable, and upload it to the online application system. The form calls for required information on current and pending support for ongoing projects and proposals. All current project support from whatever source (e.g., federal, state, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. The proposed project and all other projects or activities requiring a portion of time of the project personnel and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support.

RESEARCH INVOLVING HUMAN SUBJECTS

The National Academies of Sciences, Engineering, and Medicine (NASEM) require that all participants in funded research projects are treated respectfully and ethically, and that their privacy is protected. If your project is selected for funding, the GRP will assess whether or not the project involves research on humans. If human research is involved, then the GRP will work with you to submit the appropriate documentation about your project to the NASEM Institutional Review Board (IRB) for review and approval before an award can be made. Visit our website for more [information about human subjects regulations](#).

DATA MANAGEMENT

The GRP follows the federal government's definition of data in the Office of Management and Budget (OMB) 2 Code of Federal Regulations (CFR) Section 200.315: "…the recorded factual material commonly accepted in the scientific community as necessary to validate research findings." If your proposal is selected for funding, the GRP will assess if your proposed project involves research that requires a data management plan. If research data is involved, then the GRP will work with you to submit the appropriate documentation, including a data management plan, before an award can be made. Visit our website for [more information about the GRP's data management policy](#).

MERIT REVIEW CRITERIA

All complete full proposals will be evaluated on the basis of four broad review criteria. Applicants should consider the Full Proposal Guidelines and Merit Review Criteria in the development of their full proposal. Reviewers may raise additional issues that are not covered by the criteria.

Approach and Feasibility (35%)
- To what extent does the proposal address the challenge statement?
- To what extend does the proposal provide a well justified approach to achieve intended outcomes?
- To what extent is the project feasible within the criteria of this funding opportunity?

Engagement and Impact (35%)
- To what extent does the proposal identify and engage appropriate stakeholders and/or end-users?
- To what extent does the project propose a novel method, approach, or application; challenge existing paradigms or practice; or apply technology in a new way?
- To what extent is the project's assessment appropriate to determine the success of the approach or method?
- To what extent could the anticipated project outcomes potentially be used by other communities, organizations, institutions, or groups within or outside of the project community?

Project Team (20%)
- To what extent are project team members well-qualified in their experience, knowledge, and skills to ensure the completion of a successful project?

Budget (10%)
- To what extent is the budget commensurate with the proposed activities?

MAKING THE AWARD
Selection Notice
The GRP reserves the right to select all, some, one, or none of the proposals received in response to this solicitation.

When the evaluation of a proposal is complete, the project director will be notified that (1) the proposal has been selected for funding pending contract negotiations, or (2) the proposal has not been selected. These official notifications will be sent via email to the project director identified on the application. If a proposal is selected for award, the GRP reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to, indirect cost information or other budget information.

Award Notice

The GRP transmits award notices to organizations via e-mail. The award is not finalized and the National Academies of Sciences, Engineering, and Medicine is not obligated to provide any funding until a signed copy of the award agreement has been received by the Academies.

Grant Periods

Upon receipt of the award notice, the awardee should note the effective date and the expiration date. The effective date is the date specified in the grant notice on or after which expenditures may be charged to the grant. Charging expenditures to the grant prior to the effective date is prohibited. The expiration date is the date specified in the grant notice after which expenditures may not be charged against the grant except to satisfy obligations to pay allowable project costs committed on or before that date. Once an award is made, the effective date cannot be changed. The expiration date may be changed as a result of approval of a request for a no-cost extension. If approved, the GRP will issue an amendment to the grant.

If additional time beyond the performance period and the established expiration date is required to assure adequate completion of the original scope of work with the funds already made available, the awardee may apply for a one-time, no-cost extension of up to six months. A formal request must be submitted to the GRP at least 45 days prior to the expiration date of the grant. The request must explain the need for the extension and include an estimate of the unobligated funds remaining and a plan for their use. This one-time extension will not be approved solely for the purpose of using the unliquidated balances.

Post-award Management

Coordination with GRP: After the award is conferred, grantees shall coordinate with the GRP to formally initiate the project. GRP staff will periodically request status meetings during the project implementation phase to discuss progress and any unanticipated developments that may affect the project outcomes as specified in the grant agreement. These interactions will help ensure successful management of the grant.

Reporting Requirements: After an award is conferred, the grantee shall provide a semi-annual financial report to the GRP to report on grant expenditures to date under the grant. The grantee shall provide a semi-annual written report to the GRP to report on activities being carried out under the grant, including but not limited to project accomplishments to date and grant expenditures. No later than 60 days after the expiration of the award, the grantee shall provide in writing a final grant report. The final grant report shall address the original objectives of the project as identified in the grant proposal, describe any changes in objectives, describe the final project accomplishments, and include a final project accounting of all grant funds.

Data Management: Implementation of a data management plan will be monitored through the annual and final report process. Even when no data or any other information products will be produced, a plan must be submitted that states "No data or information products are expected to be produced from this project." Please see the GRP's [Data Management Policy and Data Management](#) web page for information on this requirement.

Scientific Integrity

A fundamental purpose of the GRP is to facilitate the advancement of knowledge and the application of science to address challenges relevant to the GRP's mission. All activities of the GRP will be conducted to meet the highest standards of scientific integrity. All grantees have a responsibility to use the funds wisely.

Grant Terms and Conditions

Please review the Grant Agreement prior to submitting an application. It is the policy of National Academies of Sciences, Engineering, and Medicine to entertain potential modifications to the Grant Agreement only under the most exceptional circumstances. Rather, successful applicants are strongly encouraged to sign the Grant Agreement as presented.

- [View a sample grant agreement if the applicant is a public institution.](#)
- [View a sample agreement if the applicant is a private institution.](#)

BACKGROUND

ABOUT THE GULF RESEARCH PROGRAM

The GRP is a division of the National Academies of Sciences, Engineering, and Medicine—a private, nonprofit organization with a 150-year history as an independent advisor to the Nation on issues of science, engineering, and medicine. The GRP was founded in 2013 as part of legal settlements with the companies involved in the 2010 Deepwater Horizon disaster, and received an endowment to carry out studies, projects, and other activities in the areas of research and development, education and training, and monitoring and synthesis.

The GRP seeks to enhance offshore energy safety, environmental protection and stewardship, and human health and community resilience in the Gulf of Mexico and beyond. It focuses its work on the Gulf of Mexico and other outer continental shelves of the United States where there is hydrocarbon production, and on their coastal zones; specifically, this includes the areas of the Southcentral region of Alaska that are or could be impacted by activities (e.g., drilling, production, and transportation) associated with hydrocarbon production in the offshore. Where appropriate, the GRP's work may extend farther inland or into adjacent seas.

The GRP uses four strategic approaches to "catalyze, implement, and track positive impact in the Gulf of Mexico and beyond"[3]:

1. Advance science and understanding
2. Bridge knowledge to action
3. Build partnerships and engage networks
4. Monitor for progress and change

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[3] National Academies of Sciences, Engineering, and Medicine. 2020. *Gulf Research Program: 2020-2024 Strategic Plan*, pp. 3-4. Available at https://www.nationalacademies.org/_cache_0f9e/content/4885770000227383.pdf. Retrieved April 24, 2021.

THE GRP'S HEALTH AND RESILIENCE PROGRAM

The GRP's Health and Resilience Program works to put science into action in ways that enhance health, well-being, and resilience across communities in its geographic areas of focus (i.e., the coastal areas of the Gulf region and the Southcentral region of Alaska). Its overarching goals are to:

- Reduce inequities in health and community resilience.
- Advance research and practice related to health and community resilience.
- Promote a culture of health and community resilience.

The Health and Resilience Program uses two complementary frameworks to approach its work:
1. the social determinants of health[4]
2. the six community capitals[5]

Social determinants of health are the conditions in the environment where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Examples include, but are not limited to, education, employment, environment, health services and systems, housing, income and wealth, public safety, and transportation. The six community capitals—infrastructure, natural, financial, human and cultural, social, and political—represent a community's assets. Resilience is the "ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events."[6]

[4] National Academies of Sciences, Engineering, and Medicine. 2017. *Communities in Action: Pathways to Health Equity*, pp. 116-9. Washington, DC: The National Academies Press. https://doi.org/10.17226/24624.

[5] National Academies of Sciences, Engineering, and Medicine. 2019. *Building and Measuring Community Resilience: Actions for Communities and the Gulf Research Program*, pp. 15-17. Washington, DC: The National Academies Press. https://doi.org/10.17226/25383.

[6] National Research Council. 2012. *Disaster Resilience: A National Imperative*, p. 1. Washington, DC: The National Academies Press. https://doi.org/10.17226/13457.