



**U.S. NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314**

NSF 24-072

Dear Colleague Letter: Request for Information on Future Directions for Developing the Geoscience Workforce - Updates for the GEOPATHs Program

March 26, 2024

Dear Colleague:

Through this Dear Colleague Letter (DCL), the National Science Foundation's (NSF) Division of Research, Innovation, Synergies, and Education (RISE) within the Directorate for Geosciences (GEO) seeks community input on innovative and successful strategies for training the future geoscience workforce.

Since 2015, the Pathways into the Earth, Ocean, Polar and Atmospheric & Geospace Sciences (GEOPATHs) program has supported the education, training and professional development of graduate, undergraduate, and high school students and teachers in the geosciences through the creation of STEM learning ecosystems. GEOPATHs projects have made significant advances toward the goal of increasing the number of students pursuing undergraduate and postgraduate degrees by designing and testing novel approaches to engage students in authentic, career-relevant experiences in geoscience. Further, the GEOPATHs community has made important contributions regarding effective practices for engaging students from historically excluded groups or from non-geoscience degree programs.

CURRENT AND FUTURE STATUS OF THE GEOPATHS PROGRAM

As the GEOPATHs program approaches its ten-year anniversary, GEO is seeking input from the community on needs that can be addressed by the next iteration of the program.

NSF has temporarily paused the GEOPATHs program. We intend to incorporate community input into future innovative and forward-looking program guidelines. RISE will continue to support existing GEOPATHs awards and will accept new proposals focused on broadening participation in the geosciences through the [Geoscience Opportunities for Leadership in Diversity \(GOLD-EN\)](#) program ([PD 21-178Y](#)). GEOPATHs proposals that were received prior

to this announcement will be processed following NSF policies.

NEXT STEPS

NSF wants to identify the current and future needs of education and workforce development for the geoscience community, including the advancement of strategies that address pressing societal and economic challenges and foster entrepreneurship within the geosciences. Submission of collective input to this request for information spanning different perspectives from multiple constituent communities will be used to inform, refine, and catalyze future NSF investments and programs. See instructions below for submission of written information to NSF.

NEXT STEPS REQUEST FOR INFORMATION (RFI)

How to Provide Information

Technological advances in the 21st century have disrupted traditional education requiring an evolution in student preparation that goes beyond degrees (e.g., micro-credentials) for a wide range of career opportunities. The future workforce must be inclusive and be reflective of the broad diversity of talent across the country. An intentionality to workforce development is required so that geoscience careers are open to the full talent pool of the nation.

We ask the community to address the six items below. While we appreciate answers to all six questions, all questions are optional. In addressing the questions below we encourage you to consider the needs of the students (recruitment, preparation, retention), faculty (professional development), and departments/institutions (structure, climate). Follow this link to provide your responses https://nsfevaluation.gov1.qualtrics.com/jfe/form/SV_78sfdzEBjkEtxqK.

Overall Community Needs

1. What important future directions are needed for workforce development in the geosciences?
2. What are the biggest educational challenges in geosciences as whole, but also within specific disciplines represented by earth, ocean, polar, atmospheric and geospace sciences?
3. How can we better attract students to the Geosciences?
4. What are hurdles to the geosciences academic community developing connections to and partnerships with for-profit and non-profit organizations, non-governmental organizations, and entrepreneurs? What are the unrealized opportunities?
5. What are impediments to fostering experiences that simultaneously support the career development of early geoscience scholars and U.S. economic development?
6. Do you have any additional thoughts regarding areas of need related to education, workforce development, or broadening participation in the geosciences?

General Information

7. Name
8. Institution/Employer
9. Job title (if relevant) and career stage
10. Email
11. State

Timeline

Responses to this DCL must be received on or before **5:00 PM Eastern on June 7, 2024**.

WHAT WILL NSF DO WITH THIS INFORMATION?

NSF, at its discretion, will use the information submitted in response to this RFI to help inform future program directions, new initiatives, and potential funding opportunities. The information provided will be analyzed, may appear in reports, and may be shared publicly on agency websites. Respondents are advised that the government is under no obligation to acknowledge receipt of the information or provide feedback to respondents with respect to any information submitted. *No proprietary, classified, confidential, or sensitive information should be included in your response submission.* The government reserves the right to use any non-proprietary technical information in any resultant solicitation(s), policies, or procedures.

If you have any questions about the RFI process, please contact the GEOPATHS program officers listed below at geopaths@nsf.gov.

GEOPATHS PROGRAM OFFICERS

- Amanda (Manda) S. Adams, GEO/RISE/AGS, telephone: (703) 292-8500, email: geopaths@nsf.gov
- M. Brandon Jones, GEO/RISE, telephone: (703) 292-8500, email: geopaths@nsf.gov
- Rosa Leon-Zayas, GEO/RISE, telephone: (703) 292-8500, email: geopaths@nsf.gov
- Aisha R. Morris, GEO/RISE/EAR, telephone: (703) 292-8500, email: geopaths@nsf.gov
- Elizabeth L. Rom, GEO/RISE/OCE/OPP, telephone: (703) 292-8500, email: geopaths@nsf.gov

Sincerely,

Alexandra R. Isern
Assistant Director for Geosciences