



National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

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Dear Colleague Letter: Supplemental Funding to Broaden Participation in the Geosciences - AMP-SRS

Date: November 21, 2013

This is the *first* of two Dear Colleague Letters being released by the Directorate for Geosciences (GEO) with a focus on cultivating and preparing a diverse geoscience workforce for the future and strengthening geoscience education (also see Dear Colleague Letter [NSF 14-015](#)). A well-prepared, innovative science, technology, engineering and mathematics (STEM) workforce is crucial to the Nation's health and economy. Many recent national policy reports¹ and actions have drawn attention to the opportunities and challenges inherent in increasing the number of highly qualified STEM graduates, including STEM teachers. Priorities include educating students as leaders and innovators in emerging and rapidly changing STEM fields, as well as educating a scientifically literate populace; both of these priorities depend on the nature and quality of the undergraduate education experience. In addressing these STEM challenges and priorities, the National Science Foundation invests in research-based and research-generating approaches to understanding STEM learning; to designing, testing, and studying curricular change; to wide dissemination and implementation of best practices; and to broadening participation of individuals and institutions in STEM fields. The goals of these investments include: increasing student retention in STEM; preparing students well to participate in science for tomorrow; and, improving students' STEM learning outcomes.

Recognizing disciplinary differences and priorities, NSF's investment in research and development in undergraduate STEM education encompasses a range of approaches. These approaches include: experiential learning; assessment/metrics of learning and practice; scholarships; foundational education research; professional development/institutional change; formal and informal learning environments; and undergraduate disciplinary research. Both individually and integrated in a range of combinations, these approaches can lead to outcomes, including: developing the STEM and STEM-related workforce; advancing science; broadening participation in STEM; educating a STEM-literate populace; improving K-12 STEM education; encouraging life-long learning; and, building capacity in higher education.

In this context, the Directorate for Geosciences (GEO) encourages Principal Investigators (PIs) of *currently active GEO awards* to request Supplemental Funding to support the engagement of new undergraduate or graduate students in their research. This opportunity, which leverages resources and infrastructure developed through investments of the Division of Human Resource Development (HRD) in the Directorate of Education and Human Resources, is available to PIs with current GEO research awards whose institutions and/or academic units are either currently participating in the HRD-sponsored "Alliances for Graduate Education and the Professoriate" (AGEP) and/or "Louis Stokes Alliances for Minority Participation" (LSAMP) programs; or whose institutions and/or academic units have participated in the AGEP program in the past (AGEP Legacy institutions). Such awardees may submit requests to GEO for Supplemental Funding to defray the costs for undergraduate and graduate students to participate in the GEO-funded research. For the purposes of this Dear Colleague Letter, this opportunity to submit targeted requests for Supplemental Funding will be abbreviated to: **Alliances for Minority Participation - Student Research Supplements (AMP-SRS)**.

Information regarding the AGEP Program may be found here:

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5474

A list of AGEP sites may be found here: <http://www.agep.us>

Information regarding the LSAMP Program may be found here:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13646

A list of recently funded LSAMP sites may be found here:
<http://www.nsf.gov/awardsearch/advancedSearchResult?ProgEleCode=9133&BooleanElement=ANY&BooleanRef=ANY&ActiveAwards=true&>

In support of NSF's commitment to broadening participation among individuals, institutions, and geographic areas, AMP-SRS is designed to promote increased participation of students in all fields of GEO research, with an emphasis placed on increasing the involvement in these fields by members of traditionally underrepresented groups — a key goal of both the AGEP and LSAMP Programs. Traditionally underrepresented groups include women, minorities (African-Americans, Hispanics, Native Americans, Alaska Natives, Native Hawaiians and other Pacific Islanders), and persons with disabilities.

GEO has long promoted efforts to recruit and retain students from underrepresented groups in all areas of the earth, atmospheric, geospace, ocean and polar sciences. AMP-SRS introduces a new opportunity by which a current GEO research awardee is able to support undergraduate or graduate students in an ongoing GEO-funded research project. The goal is to create an opportunity to engage additional students in research, to develop a positive learning environment for students, and to improve diversity and retention at the post-baccalaureate level within the geosciences. The research undertaken by the student(s) must fall within the scope of the parent GEO award.

The maximum period during which AMP-SRS funding may be used to fund any individual student (undergraduate or graduate) is two years.

It is expected that AMP-SRS supplements will typically support one student. However, support for more than one student may be requested if clearly justified in terms of the scale/scope of the parent research award, the capacity of the research team to provide appropriate mentoring, the ability to engage students from underrepresented minorities, and other such factors.

ANTICIPATED TYPE OF AWARD

Supplements to currently active GEO awards for support of undergraduate, M.S., or Ph.D. student(s).

ELIGIBILITY

A Supplemental Funding request for AMP-SRS may be made by the PI of a currently active GEO research award. The PI must be affiliated with an academic unit of an institution participating in an active LSAMP project, AGEP project, or a Legacy AGEP institution as defined above. Instrumentation acquisition awards and REU awards are not eligible.

AMP-SRS student candidates must be United States citizens, nationals, or permanent residents.

The goal of this opportunity is to increase the number of students engaged in geoscience research. As such, AMP-SRS funding cannot be used to *replace* existing funding for students who already receive salary or stipend support to participate in research through other grants or funding sources. Students who have received an NSF Graduate Research Fellowship are not eligible to receive AMP-SRS support.

PREPARATION OF AN AMP-SRS REQUEST

Information about requesting Supplemental Funding is contained in Part II (Section I.E.4) of the NSF Proposal and Award Policies and Procedures Guide (PAPPG), which is available online at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=papp

An AMP-SRS supplement request to an existing GEO award should be submitted in FastLane (<https://www.fastlane.nsf.gov/index.jsp>) in accordance with the guidelines found in the PAPPG and subject to the following instructions.

After logging into FastLane, choose "Award and Reporting functions," and then "Supplemental Funding Request." Next, choose the award to be supplemented. In the form entitled "Summary of Proposed Work," state that this is an AMP-SRS request and provide a brief description, not to exceed one page, of the proposed AMP-SRS activity, the impact of the AMP-SRS support, and how the AMP-SRS support would broaden participation.

In the form entitled "Justification for Supplement," describe the student's involvement in the research project, keeping in mind that the student should contribute to the intellectual core of the funded research effort. Strong preference will be given to requests that have already identified a specific student(s) for support. If the identity of the student(s) is known, include a description of the student's long-range career goals and provide an explanation of how the proposed student candidate and project will serve to broaden participation. The Justification for Supplement text is limited to 3 pages. If the identity of the student(s) is not known, then a detailed plan for how the student(s) will be recruited and selected must be provided, as well as a discussion of any prior activities by the PI that have involved the recruitment and training of underrepresented undergraduate or graduate students.

In the Supplementary Documents section, provide the following:

- A brief resume, not to exceed 2 pages, for the participating student, if known, including U.S. permanent residency or citizenship status. Please do not include other personally identifiable information such as social security number, date of birth, or place of birth.
- A mentoring plan to be modeled after the required NSF post-doctoral mentoring plan described in Part I (Section II.C.2.j) of the PAPPG. If the proposed student is working toward a Ph.D., the mentoring plan should also describe how the student will be encouraged and supported toward completion of the Ph.D. after the supplement period, and a plan to foster further career advancement. If the proposed student is an undergraduate student, the mentoring plan should also describe plans for encouraging retention of the student in a geosciences education or career path after they graduate. If the identity of the student is not yet known, a discussion of anticipated mentoring strategies and available resources should be described.
- Either:
 - A letter signed by the PI of the current AGEP or LSAMP award at the PI's institution (not the PI of the supplemental funding request) confirming that the AMP-SRS supported student is or will be a beneficiary of the program activities supported by the AGEP or LSAMP award; or
 - A letter from the coordinator of Legacy AGEP activities (not the PI of the supplemental funding request) stating how the student is or will be a beneficiary of activities that fulfill the goal of the AGEP program: "AGEP is committed to the national goal of increasing the numbers of African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians and other Pacific Islanders (collectively underrepresented minorities (URMs)), including URMs with disabilities entering and completing graduate education and postdoctoral training to levels representative of the available pool of URMs."

Prepare a budget and budget justification for the funds requested for student support. The only allowable expenses in the AMP-SRS request are: student stipend and fringe benefits, consistent with academic institutional practices; tuition support in the case of graduate (but not undergraduate) students; travel to participate in research activities or present research results; and, any allowed institutional overhead on

these costs.

After you have prepared the request for supplemental funding, forward it to your organization's Sponsored Research Office, which will submit the request to NSF.

For questions or information on submission of an AMP-SRS, contact the appropriate Division AMP-SRS representatives (below) or the cognizant managing Program Officer for your current GEO grant:

- AGS: Dr. Gannet Hallar, ahallar@nsf.gov
- EAR: Dr. Lina Patino, lpatino@nsf.gov
- OCE: Ms. Elizabeth Rom, elrom@nsf.gov
- PLR: Dr. V. Celeste Carter, vccarter@nsf.gov

For questions related to the use of FastLane to submit the supplement request, contact the FastLane Help Desk: email fastlane@nsf.gov or telephone 1-800-673-6188.

REVIEW PROCESS

An award decision will be based on internal review by NSF program officers and on availability of funds. Program officers may make decisions regarding whether or not to recommend a small supplement without merit review of the supplemental request. Requests for larger supplements may require external merit review.

AWARD DURATION

When submitting a Supplemental Funding request for AMP-SRS support, Principal Investigators may ask to extend the duration of an existing award by up to six months. The term of the AMP-SRS supplement may not exceed that of the parent award (including extensions).

AWARD INFORMATION

The estimated number of supplements to be awarded will be approximately 20.

SUBMISSION DEADLINE

AMP-SRS Supplemental Funding requests must be submitted to GEO **by February 14, 2014**. NSF expects to notify Principal Investigators about funding recommendations in April 2014.

SPECIAL REPORTING REQUIREMENTS

The annual and final project reports must discuss the impact of the AMP-SRS on increasing the participation of underrepresented groups in the geosciences. NSF must be notified regarding any changes in the identity of the student(s) being supported through AMP-SRS funding, as well as the identity and credentials of any student(s) recruited after the Supplemental Funding request has been approved.

Sincerely,
Roger Wakimoto
Assistant Director
Directorate for Geosciences

¹ "Expanding Underrepresented Minority Participation: America's Science and Technology talent at the Crossroads" (National Research Council, 2011); "Engage to Excel: Producing One Million Additional College Graduates with Degrees in Science, Technology, Engineering, and Mathematics" (President's

Council of Advisors for Science and Technology, 2012); and, "Federal Science, Technology, Engineering, and Mathematics (STEM) Education 5-Year Strategic Plan" (National Science and Technology Council, Committee on STEM Education, 2013).