Alliances for Graduate Education and the Professoriate (AGEP)

PROGRAM SOLICITATION
NSF 21-576

REPLACES DOCUMENT(S):
NSF 16-552

Letter of Intent Due Date(s) (required) (due by 5 p.m. submitter's local time):

June 02, 2021
Letters of Intent are only required for those planning to submit a full AGEP Faculty Career Pathways Alliance Model proposal. Submitting a letter of intent automatically allows you to submit a full proposal to the August 24, 2021 deadline.

June 02, 2022
Letters of Intent are only required for those planning to submit a full AGEP Faculty Career Pathways Alliance Model proposal. Submitting a letter of intent automatically allows you to submit a full proposal to the August 25, 2022 deadline.

Preliminary Proposal Due Date(s) (required) (due by 5 p.m. submitter’s local time):

February 08, 2022
Second Tuesday in February, Annually Thereafter
Preliminary proposals are only required for institutions of higher education that want to submit a full AGEP Institutional Transformation Alliance proposal.

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

August 17, 2021
Third Tuesday in August, Annually Thereafter
AGEP Catalyst Alliance proposals.

August 24, 2021
AGEP Faculty Career Pathways Alliance Model proposal deadline. A Letter of Intent must first have been submitted.

March 29, 2022
Last Tuesday in March, Annually Thereafter
AGEP Catalyst Alliance proposals.

August 25, 2022
AGEP Faculty Career Pathways Alliance Model proposal deadline. A Letter of Intent must first have been submitted.

August 26, 2022
Last Friday in August, Annually Thereafter
AGEP Institutional Transformation Alliance proposals. A preliminary proposal must have first been submitted.

IMPORTANT INFORMATION AND REVISION NOTES

The Transformation Alliance track was discontinued. Three tracks are offered: The AGEP Catalyst Alliance (ACA) track, the AGEP Faculty Career Pathways Alliance Model (FC-PAM) track, and the AGEP Institutional Transformation Alliance (ITA) track. The FC-PAM track will only be funded in FY2022-FY2023 and it will be discontinued thereafter.

There are two due dates for the ACA track, one in March and one in August of each year. The second due date has no impact on the total number of anticipated
new ACA awards.

NSF is particularly interested in activities that will advance science, technology, engineering and mathematics (STEM) and STEM education research disciplines contributing to the fields of artificial intelligence and quantum information systems. As well, fields that focus on preparing America's skilled technical workforce and advancing discoveries that empower U.S. businesses and entrepreneurs to succeed globally are of special interest.

Note to students and postdoctoral scholars seeking support: The AGEP program does not make awards to individual students or postdoctoral scholars to undertake their education or research activities.

Undergraduates and graduate students seeking support for graduate education should review the NSF Graduate Research Fellowship program (GRFP): https://nsfgrfp.org/.

Researchers who are currently funded by the NSF's Directorate for Mathematical and Physical Sciences (MPS) and who seek funding for a graduate student to work with their MPS-funded project should review the Dear Colleague Letter: MPS AGEP-GRS (NSF 20-083): https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20083.

Postdoctoral scholars seeking support should consider searching the NSF website for information about possible funding opportunities: https://www.nsf.gov/.

Additionally, some NSF Directorates may have special funding opportunities to support students and postdoctoral trainees who contribute to broadening participation in STEM. NSF principal investigators seeking funds to support students and postdoctoral trainees are encouraged to contact their NSF program officer for information on potential opportunities.

Important Information

Innovating and migrating proposal preparation and submission capabilities from FastLane to Research.gov is part of the ongoing NSF information technology modernization efforts, as described in Important Notice No. 147. In support of these efforts, research proposals submitted in response to this program solicitation must be prepared and submitted via Research.gov or via Grants.gov, and may not be prepared or submitted via FastLane.

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised NSF Proposal & Award Policies & Procedures Guide (PAPPG) (NSF 22-1), which is effective for proposals submitted, or due, on or after October 4, 2021.

**SUMMARY OF PROGRAM REQUIREMENTS**

**General Information**

Program Title:

Alliances for Graduate Education and the Professoriate (AGEP)

Synopsis of Program:

The NSF’s Alliances for Graduate Education and the Professoriate (AGEP) program contributes to the National Science Foundation's objective to foster the growth of a more capable and diverse research workforce. Through this solicitation, the NSF seeks to build on prior AGEP work, and other research and literature concerning racial and ethnic equity, in order to address the AGEP program goal to increase the number of historically underrepresented minority faculty in STEM. Furthering the AGEP goal requires advancing knowledge about new academic STEM career pathway models, and about evidence-based systemic or institutional change initiatives to promote equity and the professional advancement of the AGEP populations who are pursuing, entering and continuing in non-tenure and tenure-track STEM faculty positions. The use of the term "historically underrepresented minority" reflects language from Congress, and in the context of the AGEP program, the AGEP populations are defined as STEM doctoral candidates, postdoctoral scholars and faculty, who are African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders. The terms for these racial and ethnic populations are derived from the US government's guidance for federal statistics and administrative reporting. At the graduate student level, only doctoral candidates are included because they have greater potential to enter a faculty position within the project duration time frame.

Improving equity and inclusion is critical to advancing STEM faculty, educating America’s future STEM workforce, fostering individual opportunity and contributing to a thriving U.S. economy. The NSF AGEP program, therefore, seeks to fund grants that advance and enhance the systemic factors that support equity and inclusion and, consequently, mitigate the systemic inequities in the academic profession and workplace. The AGEP program goal to increase the number of historically underrepresented minority faculty is bolstered by the National Science Board's [Vision 2030: Vision for the Future](https://www.nsf.gov/od/odi/special_reports/vision2030/).

Systemic and organizational inequities may exist in areas such as policy and practice as well as in institutional, departmental, laboratory and classroom culture and climate. AGEP proposals may address, for example, practices in academic departments that result in the inequitable allocation of service or teaching assignments which may impede research productivity, delay career advancement, and create a culture of differential treatment and rewards. Similarly, policies and procedures that fail to mitigate implicit bias in hiring, tenure, and promotion decisions could lead to people who are members of AGEP populations being evaluated less favorably, perpetuating historical under-participation in STEM academic careers and contributing to an academic climate that is not inclusive.

All AGEP Alliances are expected to engage similar institutions of higher education (IHE) to work collaboratively and use intersectional approaches in the design, implementation, and evaluation of systemic change strategies. The collaborating IHEs must be similar to each other based on such variables as Carnegie classification, geographic location and student and/or faculty demographic characteristics.

This solicitation includes three funding tracks that all support the AGEP program goal. All tracks require collaborative IHE teams to use an intersectional lens as they address systemic and institutional change strategies at IHEs to promote equity for AGEP populations.
The **AGEP Institutional Transformation Alliance (ITA)** track is designed to support the development, implementation, and evaluation of innovative systemic and institutional change strategies that promote equity for AGEP populations, within similar IHEs. ITAs will create permanent policy and practice changes that advance AGEP populations, and the project work is expected to be sustained after NSF funding expires. Please note that a preliminary proposal to the ITA track is required, and that at least one of the institutions submitting must have or have had an AGEP Catalyst Alliance. The proposing IHEs represented in the preliminary ITA proposal must be the same collaborating IHEs who will plan to submit a full ITA proposal, if invited by NSF to submit the full ITA. Please read the full solicitation for details about ITA Preliminary and Full proposal submissions that begin in FY2022.

The **AGEP Faculty Career Pathways Alliance Model (FC-PAM)** track is intended to support the development, implementation, evaluation, and institutionalization of Alliance models that will advance AGEP populations, within similar IHEs. The FC-PAM collaborators must also self-study into how socio-cultural, economic, structural, leadership and institutional variables affect the formation of the FC-PAM Alliance, and the strategies or interventions the collaborators implement to advance the AGEP populations. A Letter of Intent (LOI) is required ONLY for IHEs that plan to submit an FC-PAM collaborative proposal, and only one LOI is needed for the collaborating research institutions that plan to submit the FC-PAM proposal. The FC-PAM track will only be available in FY2021-FY2022 and it will be discontinued thereafter.

The **AGEP Catalyst Alliance (ACA)** track supports the design and implementation of one or more organizational self-assessment(s) to collect and analyze data that will identify inequities affecting the AGEP populations; pilot equity strategies as appropriate; and develop a five-year equity strategic plan for the AGEP populations. The ACA is meant as a facilitator grant to help similar IHEs generate the foundational work necessary to initiate an ITA project.

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2. All STEM fields that are supported by NSF are supported by the AGEP program, including the learning, social, behavioral, and economic sciences. AGEP does not support clinical science fields.


**Cognizant Program Officer(s):**

- Mark H. Leddy, Lead Program Director, telephone: (703) 292-4655, email: mleddy@nsf.gov
- Carrie Hall, Program Director, telephone: (703) 292-4641, email: carhall@nsf.gov
- Keri Ann Sather-Wagstaff, Program Director, telephone: 703-292-2534, email: ksatherw@nsf.gov
- Maurice Dues, Program Specialist, telephone: (703) 292-7311, email: mdues@nsf.gov

**Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):**

- 47.076 --- STEM Education

**Award Information**

**Anticipated Type of Award:** Standard Grant or Continuing Grant

**Estimated Number of Awards:** 6 to 32

2-8 new Alliances per year, with 6-32 awards to individual organizations.

In Fiscal Years (FY) 2022-2023: 1-2 new AGEP Faculty Career Pathways Alliance Model projects per year, with about 3-4 awardee organizations collaborating in each Alliance, are anticipated pending the availability of funds. 1-5 new AGEP Catalyst Alliance projects per year, with about 3-4 awardee organizations collaborating in each Alliance, are anticipated pending the availability of funds.

In Fiscal Year (FY) 2024, and thereafter: 2-3 new AGEP Institutional Transformation Alliance projects per year, with about 3-4 awardee organizations collaborating in each Alliance, are anticipated pending the availability of funds. 1-5 new AGEP Catalyst Alliance projects per year, with about 3-4 awardee organizations collaborating in each Alliance, are anticipated pending the availability of funds.

**Anticipated Funding Amount:** $400,000 to $4,400,000

Pending the availability of funds, the following amounts are anticipated to be available for new awards: $2,100,000 in Fiscal Year 2022; $3,620,000 in Fiscal Year 2023; $3,880,000 in Fiscal Year 2024; and $2,450,000.

Pending the availability of funds, a maximum of $2,500,000 - $2,900,000 for each new AGEP Faculty Career Pathways Alliance Model projects, with about 3-4 awardee organizations collaborating in each Alliance.

Pending the availability of funds, a maximum of $4,000,000 - $4,400,000 for each new AGEP Institutional Transformation Alliance, with about 3-4 awardee organizations collaborating in each Alliance.

Pending the availability of funds, a maximum of $400,000 for each new AGEP Catalyst Alliance, with about 3-4 awardee organizations collaborating in each Alliance.

**Eligibility Information**

**Who May Submit Proposals:**
Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

Limit on Number of Proposals per PI or co-PI:

There are no restrictions or limits.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- Letters of Intent: Submission of Letters of Intent is required. Please see the full text of this solicitation for further information.
- Preliminary Proposals: Submission of Preliminary Proposals is required. Please see the full text of this solicitation for further information.
- Full Proposals:

B. Budgetary Information

- Cost Sharing Requirements:
  Inclusion of voluntary committed cost sharing is prohibited.

- Indirect Cost (F&A) Limitations:
  Not Applicable

- Other Budgetary Limitations:
  Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

Letter of Intent Due Date(s) (required) (due by 5 p.m. submitter's local time):

June 02, 2021

Letters of Intent are only required for those planning to submit a full AGEP Faculty Career Pathways Alliance Model proposal. Submitting a letter of intent automatically allows you to submit a full proposal to the August 24, 2021 deadline.

June 02, 2022

Letters of Intent are only required for those planning to submit a full AGEP Faculty Career Pathways Alliance Model proposal. Submitting a letter of intent automatically allows you to submit a full proposal to the August 25, 2022 deadline.

Preliminary Proposal Due Date(s) (required) (due by 5 p.m. submitter's local time):

February 08, 2022

Second Tuesday in February, Annually Thereafter

Preliminary proposals are only required for institutions of higher education that want to submit a full AGEP Institutional Transformation Alliance proposal.

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

August 17, 2021

Third Tuesday in August, Annually Thereafter

AGEP Catalyst Alliance proposals.
I. INTRODUCTION

In this solicitation, the NSF’s Alliances for Graduate Education and the Professoriate program (AGEP) seeks to build on prior AGEP work, and other research and literature concerning racial and ethnic equity, to address the goal of increasing the number of African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian and Native Pacific Islander faculty in STEM. Furthering the AGEP goal requires advancing knowledge about new academic STEM career pathway models, and about evidence-based systemic or institutional change strategies that promote equity and the professional advancement of non-tenure and tenure-track STEM faculty who are African Americans, Hispanic Americans, Native American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders.
Despite a steady increase in the pool of African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian and Native Pacific Islander graduate students and doctoral award recipients in STEM (NASEM, 2018; NSF, 2019; Okahana et al., 2018), the number of comparable STEM faculty remains lower relative to demographic U.S. population data, lower compared to non-minority full-time full professors, and lower than the percentage of African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian and Native Pacific Islander undergraduate STEM degree earners (Bennet et al., 2020; IOM, 2011; Li & Kodel, 2017; NSF, 2015). These low numbers are indicative of the issues that create barriers to career advancement. There are many reports of systemic socio-cultural, economic, and structural barriers, as well as institutional policies, procedures and practices, that limit scholars as they progress along their STEM academic pathways (Bruns & Webber, 2019; Corneille et al., 2019; Eaton et al., 2019; IOM, 2011; O’Meara et al., 2020; Munoz & Villanueva, 2019; NASEM, 2019a; NASEM, 2019b; Yadav et al., 2020).

The under-representation of African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian and Native Pacific Islander faculty is well documented and signals a growing need for diverse role models and mentors for the increasing number of similar undergraduate and graduate students enrolled in our nation’s STEM degree programs. When students have more faculty role models who “look like them,” they are more likely to enroll in and graduate from undergraduate degree programs (Johnson et al., 2019; IOM 2011; NASEM 2019).

Research suggests that when equity barriers for African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian and Native Pacific Islander graduate students, postdoctoral scholars and faculty are addressed, there is potential for greater academic career success (Carter-Sowell et al., 2019; Fischer et al., 2019; O’Meara et al., 2020; Whittaker et al., 2015; Yadav & Seals, 2019). For example, graduate students and postdoctoral scholars benefit from organizational interventions that emphasize clear academic performance expectations, support publishing research and provide professional development trainings to increase grant acquisition. Equity and inclusion in the STEM faculty hiring process can be improved when search committee members engage in bias reduction training, use structured interview processes and are required to “short list” African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian and Native Pacific Islander candidates. The loss of faculty may be mitigated when academic departments promote research and teaching collaborations, and when IHEs actively promote faculty into leadership roles.

The NSF’s AGEP program provides grants to increase knowledge about, and to improve the academic pathways of doctoral candidates, postdoctoral scholars and faculty who are members of the AGEP populations, and who advance to tenure and/or promotion in the STEM professoriate. The program offers funding to advance evidence-based enhancements to address the systemic factors that support equity and inclusion, and that mitigate the systemic factors that create inequities in the STEM academic pathways and professions.

Systemic or organizational inequity may exist in areas such as policy and practice, as well as in organizational culture and climate. The NSF AGEP program focuses on equity and inclusion for STEM academic doctoral candidates, postdoctoral scholars and faculty is strategic, since they all contribute to educating, training, and mentoring undergraduate students and therefore have significant influence over the preparation, interest, persistence, completion, and career choices of future scientists, engineers, and technicians.

Collaboration within an Alliance to target systemic change, which includes the consideration of intersectionality, offers IHEs the opportunity to more successfully understand and explore inequities, and better address equity and inclusion, in the STEM professoriate and the academic career pathways into that faculty profession (Armstrong & Jovanovic, 2017; Carrigan et al., 2018; DeAro et al., 2019; Fry et al., 2014; Kezar et al., 2018; Sanchez et al., 2019; Van Miegroet, 2019; Misra et al., 2017). An intersectional lens takes into consideration the interconnectedness of overlapping social identities, such as race, ethnicity, gender, sexual orientation, educational achievement, professional discipline, and socio-economic status, to name a few.

Refining, reframing, and making significant changes to the policies and practices that improve the academic STEM careers of AGEP populations are best advanced when teams of change agents work deliberately and collaboratively to create impact and scale systemic and institutional change. Such change must consider the diverse identities of the change agents, and of the populations that are affected by the new policies and practices. Without considering intersectionality, collaboration and system change approaches, the potential to improve equity and inclusion is limited (Armstrong & Jovanovic, 2017; DeAro et al., 2019; Golom, 2018; Kezar et al., 2018; Misra et al., 2017).

With respect to creating impact and scaling systemic and institutional change, the NSF’s AGEP program is particularly interested in supporting IHE collaborations that exist within the same category of IHEs, such as community colleges, primarily undergraduate institutions, Tribal Colleges and Universities, Historically Black Colleges and Universities, Hispanic-Serving Institutions, Native Hawaiian Serving Institutions, Alaskan Native Institutions, Predominantly Black Institutions, Non-tribal, Native American Serving Institutions, women’s colleges, men’s colleges, institutions primarily serving persons with disabilities, and master’s level institutions. The AGEP program also welcomes similar types of collaborating institutions from other categories of IHEs to work together to form an AGEP Alliance. For example, a group of 1862 land-grant “flagship” universities might partner together or a set of “Ivy League” institutions may collaborate. The collaborating IHEs must be similar to each other based on such variables as Carnegie classification, geographic location, and student and/or faculty demographic characteristics, to name a few.

References:


II. PROGRAM DESCRIPTION

The AGEP program supports proposals that address equity for AGEP populations: African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian and/or Native Pacific Islander doctoral candidates and/or postdoctoral scholars who are entering STEM faculty positions and/or those who are currently employed early career STEM faculty. At the graduate student level, only doctoral candidates are included because they have greater potential to enter a faculty position within the project duration timeframe. The individuals must also be United States citizens, nationals, or permanent residents of the United States. The term “national” designates a native resident of a commonwealth or jurisdiction of the United States, such as American Samoa, Guam, the Commonwealth of Puerto Rico, the United States Virgin Islands, or the Commonwealth of the Northern Mariana Islands.
All AGEP Alliances must employ an approach that targets systemic and institutional change to advance AGEP populations toward tenure and promotion in academic institutions. The AGEP Faculty Career Pathways Alliance Model projects are expected to become institutionalized at the IHEs. The AGEP Institutional Transformation Alliances will create the permanent policy and practice changes that advance the target populations. Systemic and institutional change is also the vision of the AGEP Catalyst Alliance projects. A desired outcome for the AGEP Catalyst Alliance projects must be baseline data about institutional climate, policies and practices, and a clear and detailed plan to advance the AGEP populations in academe by changing institution-wide, college, department and research group-level conditions, climate, policies and practices for career advancement and retention.

All AGEP Alliances should be collaborative research projects proposed by similar IHEs. The collaborating IHEs must be similar to each other based on such variables as Carnegie classification, geographic location, and student and/or faculty demographic characteristics, to name a few. All proposals are expected to use a collaborative team approach, where every partnering IHE and their personnel participate equally in the proposed work.

An Alliance’s cohesiveness and collaborative success requires that team members include a variety of change agents with expertise in leadership, basic STEM, social science and educational research, and IHE administration. There should be team members with experience in advancing the AGEP populations and the policies and practices that positively affect academic career progress. For example, changes to institutional hiring practices and policies require that administrators, faculty, and staff work together to enact improvements that advance equity for the AGEP populations. Key to success is that a partnering group offers each institution, and that institution’s team, the opportunity to learn from, and share with, the other collaborative teams and institutions, to collectively advance change.

The intersectional lens should be evident in the design of project and change strategies for the AGEP target populations. Specifically, proposers should recognize that gender, race, and ethnicity do not exist in isolation from each other or from other categories of social identity such as disability status, sexual orientation, economic background, first-generation status, faculty appointment type, and additional identity variables.

Intersectional approaches should be considered throughout the project design – from data collection and analysis; identification of systemic and institutional inequities in policies and practices; design and implementation of the project approaches, strategies and interventions; and into the project self-study, evaluation, dissemination, and institutionalization phases.

The AGEP focus on intersectional perspectives is important for identifying equity issues and solutions for the AGEP populations. As an example, if faculty teaching assignments and schedules are changed, consideration should be given to the faculty member’s role as a parent, or not; of a specific gender and race; and how the intersection of those identities affects the faculty member’s daily family, community and professional responsibilities.

Once the intersectional lens is engaged, it may become clear that institutional policies and practices for tenure and promotion may not provide sufficient flexibility for an individual who has family, tribal or community responsibilities that might necessitate an increase or decrease in the typical timeline for advancement decisions. Intersectional approaches are also important for identifying factors that require tailored equity building strategies in order to effectively involve other established faculty, administrators, staff and leaders in advancement decisions.

The intersectional approach can be an important component for proposals under the AGEP Faculty Career Pathways Alliance Model (FC-PAM) track. FC-PAM supports a collaborative group of similar IHEs to develop, implement, self-study, and institutionalize an innovative and transformative career pathway model that will advance AGEP populations in one or more STEM fields. The FC-PAM track will only be available in FY2021-FY2022 and it will be discontinued thereafter. FC-PAM projects must develop an Alliance model that includes activities to address barriers, and that examines the collaborations necessary to successfully implement those activities.

These FC-PAM projects must self-study the work of the collaborations to investigate how socio-cultural, economic, structural and institutional variables will, or have affected the formation of the FC-PAM and its activities to advance AGEP populations. Self-study should also include how the Alliance institutionalizes the model. When the FC-PAM institutions conduct the self-study of the development, implementation and institutionalization of the Alliance model, the following sample questions may help guide the work:

- How have the local socio-cultural, economic and structural policies, practices, and other relevant variables of each partnering institution contributed to or limited the collaborative work of the team?
- Which of the above relevant variables have featured prominently in the Alliance model’s strategies to address the institutional barriers that negatively impact the advancement of AGEP populations in academic STEM careers?
- Which institutional policies, practices and structural conditions have positively affected the Alliance’s implementation of specific interventions to advance the AGEP populations toward, into or through STEM faculty careers?
- What challenges and successes are the Alliance team, and their institutions, experiencing during Alliance model development, implementation, self-study, dissemination, and institutionalization?
- How has the Alliance team, and their institutions, made changes to the project activities in response to the challenges they have experienced during project work?

The AGEP Catalyst Alliance (ACA) track supports the design and implementation of one or more organizational self-assessment(s) to collect and analyze data that will identify inequities affecting the AGEP populations; pilot equity strategies as appropriate; and develop a five-year equity strategic plan for the AGEP populations. The ACA is meant as a facilitator grant to help similar IHEs generate the foundational work necessary to initiate an AGEP Institutional Transformation Alliance (ITA) proposal.

The AGEP ITA track supports a collaborative group of similar IHEs to develop, implement, evaluate and disseminate innovative systemic and institutional change strategies that promote equity for AGEP populations across all areas of STEM. An ACA award is a precursor to an ITA proposal. ITA teams are very strongly encouraged to propose a mutually beneficial collaboration with one or more additional projects initiated with NSF funds. Specifically, NSF-initiated projects that have been funded by programs that are based within the NSF Directorate for STEM Education. These NSF-initiated projects can be within or outside the institution(s) participating in the proposed AGEP ITA project and must fall into one of the following categories:

- Systemic, scaling and institutional transformation projects: The ADVANCE Institutional Transformation (IT) track, which is designed to support the development, implementation, and institutionalization of innovative systemic change strategies that promote gender equity for STEM faculty within an IHE; the Institutional and Community Transformation track in the Improving Undergraduate STEM Education (IUSE); and the NSF INCLUDES National Network, which includes the Coordination Hub, Alliances, Design and Development Launch Pilots, Planning Grants, and Conferences.
- STEM graduate education projects: Innovations in Graduate Education (IGE) and National Science Foundation Research Traineeship (NRT).
- Projects designed to build individuals’ capacity to carry out high quality fundamental education research in STEM: The Institutes in Research Methods track of the EDU Core Research (ECR): Building Capacity in STEM Education Research (ECR: BCSER).

AGEP ITA projects that propose a collaboration with one or more of the listed NSF-supported projects may request up to an additional $400,000 over the life of the ITA project. The additional funds are intended for support of work to align systemic change and institutional transformation efforts, particularly those impacting African American, Hispanic American, Native American Indian, Alaska Native, Native Hawaiian, and Native Pacific Islander STEM faculty, and to...
share equity and intersectional perspectives with the other NSF project(s).

The funds are not intended for direct support to students, postdoctoral scholars, or faculty to perform their STEM research or educational programs. Rather, the additional funds could cover costs such as travel and staff time, implementation of collaborative activities, and the participation of additional individuals in AGEP ITA project activities or the activities of the partner project. NSF-supported projects eligible for collaboration must be on-going: Either currently funded by NSF or sustained with non-NSF funds. Letter(s) of collaboration from the NSF-supported project representative(s) should be included in the supplementary documents.

The following table summarizes the NSF AGEP tracks:

<table>
<thead>
<tr>
<th>NSF AGEP Track</th>
<th>Institutions of Higher Education (IHE) / STEM Discipline(s)</th>
<th>Prior NSF AGEP Grant Status Required?</th>
<th>Multiple Organizations Required?</th>
<th>Budget</th>
<th>Preliminary Proposal or Letter of Intent (LOI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEP Institutional Transformation Alliance (ITA)</td>
<td>Multiple IHEs (Must include all STEM disciplines at the institutions)</td>
<td>Yes: IHEs and/or State-Level IHE System had or have an AGEP Catalyst Alliance</td>
<td>Yes: Multiple IHEs</td>
<td>Up to $4.4M for 5 Years</td>
<td>Preliminary proposal required: NSF will invite or not invite submission of full ITA proposal</td>
</tr>
<tr>
<td>AGEP Faculty Career Pathways Alliance Models (FC-PAM)</td>
<td>Multiple IHEs (One or more STEM Disciplines)</td>
<td>No</td>
<td>Yes: Multiple IHEs</td>
<td>Up to $2.9M for 5 Years</td>
<td>LOI required</td>
</tr>
<tr>
<td>AGEP Catalyst Alliance (ACA)</td>
<td>Multiple IHEs and/or State-Level IHE System (Must include all STEM disciplines at the institutions)</td>
<td>No</td>
<td>Yes: Multiple IHEs</td>
<td>Up to $400K for 2 Years</td>
<td>No LOI or preliminary proposal required.</td>
</tr>
</tbody>
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Other Funding Opportunities: The AGEP program also may fund Conferences; EARly-concept grants for Exploratory Research (EAGER) and Grants for Rapid Response Research (RAPID). Such proposals may be submitted as described in the NSF PAPPG, which is available at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

For Conferences, see PAPPG, II.E.7. The projects must be related to the AGEP program goal and objectives. Activities are expected to generate synthesis products usable by researchers and institutions aiming to adopt, reproduce, replicate and/or adapt, or innovative Alliance components. Conferences advance research agendas for professional communities and/or expand and disseminate knowledge about model development, implementation, testing and sustainability. Conferences may also advance knowledge about issues, practices and policies supporting academic pathways and successes for AGEP populations in STEM.

For EARly-concept Grants for Exploratory Research (EAGER), see PAPPG II.E.2
For Grants for Rapid Response Research (RAPID), see PAPPG, II.E.1

Note to students and postdoctoral scholars seeking support:
The AGEP program does not make awards to individual students or postdoctoral scholars to undertake their education or research activities.

Undergraduates and graduate students seeking support for graduate education should review the NSF Graduate Research Fellowship program (GRFP): https://nsfgrfp.org/.

Researchers who are currently funded by the NSF’s Directorate for Mathematical and Physical Sciences (MPS), and who want to seek funding for a minority graduate student to work with them on the MPS-funded project, should review the Dear Colleague Letter: MPS AGEP-GRS (NSF 20-083): https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20083.

Postdoctoral scholars seeking support should consider searching the NSF website for information about possible funding opportunities: https://www.nsf.gov/.
Additionally, some NSF Directorates may have special funding opportunities to support students and postdoctoral trainees that contribute to broadening participation in STEM. NSF principal investigators seeking funds to support students and postdoctoral trainees who are members of historically underrepresented minority groups, are encouraged to contact their NSF program officer for information on potential opportunities.

**III. AWARD INFORMATION**

**Anticipated Type of Award:** Continuing Grant or Standard Grant

**Estimated Number of Awards:** Pending the availability of funds, 2-8 new Alliances per year, with 6-32 awards to individual organizations.

**IV. ELIGIBILITY INFORMATION**

**Who May Submit Proposals:**

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If
the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.

Who May Serve as PI:
There are no restrictions or limits.

Limit on Number of Proposals per Organization:
There are no restrictions or limits.

Limit on Number of Proposals per PI or co-PI:
There are no restrictions or limits.

Additional Eligibility Info:
A group of IHEs that have not previously had an ITA award, can submit an ITA preliminary proposal.
At least one of the institutions submitting a preliminary proposal to the ITA track must first have had an AGEP Catalyst Alliance.
The proposing IHEs represented in the preliminary ITA proposal must be the same collaborating IHEs who will plan to submit a full ITA proposal, if invited by NSF to submit the full ITA.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent (required):

AGEP Faculty Career Pathways Alliance Model (FC-PAM) Letter of Intent: A Letter of Intent (LOI) is required ONLY for IHEs that plan to submit an FC-PAM collaborative proposal. Only one LOI is needed for the collaborating research institutions that plan to submit the FC-PAM proposal.

Letter of Intent Preparation Instructions:

When submitting a Letter of Intent through Research.gov in response to this Program Solicitation please note the conditions outlined below:

- Submission by an Authorized Organizational Representative (AOR) is required when submitting Letters of Intent.
- Submission of multiple Letters of Intent is permitted

Preliminary Proposals (required): Preliminary proposals are required and must be submitted via Research.gov, even if full proposals will be submitted via Grants.gov.

AGEP Institutional Transformation Alliance (ITA) Preliminary Proposals

1. Preliminary ITA proposals are ONLY required for IHEs that want an opportunity to submit a full ITA proposal.
   a. A group of IHEs that have not previously had an ITA award, can submit an ITA preliminary proposal.
   b. At least one of the institutions submitting a preliminary proposal to the ITA track must first have had an AGEP Catalyst Alliance.
   c. The proposing IHEs represented in the preliminary ITA proposal must be the same collaborating IHEs, who will plan to submit a full ITA proposal, if invited by NSF to submit the full ITA proposal.
   d. For the preliminary ITA proposal, the Project Description is limited to eight pages.
   e. NSF will send a binding notice of the invite or not invite decision resulting from the preliminary proposal.

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Research.gov or Grants.gov.

- Full Proposals submitted via Research.gov: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Proposal and Award Policies and Procedures Guide (PAPPG). The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg. Paper copies of the PAPPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov. The Prepare New Proposal setup will prompt you for the program solicitation number.
- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide. To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.
In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via Research.gov. PAPPG Chapter II.D.3 provides additional information on collaborative proposals.

See PAPPG Chapter II.C.2 for guidance on the required sections of a full research proposal submitted to NSF. Please note that the proposal preparation instructions provided in this program solicitation may deviate from the PAPPG instructions.

Additional proposal preparation guidance is offered for proposals to either the AGEP Faculty Career Pathways Alliance Model (FC-PAM) track, the AGEP Catalyst Alliance (ACA) track, or the AGEP Institutional Transformation Alliance (ITA) track should include and address the following:

**AGEP Institutional Transformation Alliance (ITA) Full Proposals:**

Full ITA proposals should only be submitted by IHEs that received the binding invite decision from NSF in response to the preliminary ITA proposal. Please submit a proposal title that begins with "AGEP ITA:"

a. The Project Description for ITA proposals is limited to 20 pages.

b. ITA proposals must address, in the Project Description, the IHEs' commitment to and plans for institutionalizing the project work so that it is sustained after NSF funding expires.

**AGEP Faculty Career Pathways Alliance Model (FC-PAM):**

Please submit a proposal title that begins with "AGEP FC-PAM:"

a. The Project Description for FC-PAM proposals is limited to 15 pages.

b. FC-PAM proposals must address, in the Project Description, the IHEs' commitment to and plans for institutionalizing the project work so that it is sustained after NSF funding expires.

**AGEP Catalyst Alliance (ACA):**

Please submit a proposal title that begins with "AGEP ACA:"

a. The Project Description for ACA proposals is limited to 15 pages.

**Additional General Proposal Preparation Guidance:**

1. The proposals should be collaborative research submissions, following the guidance in the Chapter II.D.3 of PAPPG. Separately submitted collaborative proposals are highly encouraged, however NSF understands that there are times when a single proposal with the subawards method must be used to complete the submission and proposed AGEP Alliance work (such as when the lead institution in a collaborative research proposal is the office for a state-wide system of similar IHEs).

2. All proposals should provide, as part of the Project Description, a brief narrative theory of change for the AGEP Alliance work; and it may be valuable also to include a diagram to visualize the theory of change. This narrative should be part of the brief rationale and literature review that is provided in the Project Description.

3. All proposals should include, as part of the Project Description, a logic model for the AGEP Alliance. The ITA and FC-PAM Alliances are encouraged to submit a two page logic model, as this option allows proposers to have an overarching AGEP Alliance logic model and then a second, linked logic model that is focused solely on the interventions and strategies.

4. There needs to be a robust management, leadership, and communication plan for engaging all partners equally to work collaboratively on all activities of the AGEP Alliance. This plan should be described as part of the Project Description. Team members are expected to include a variety of change agents with expertise in leadership, basic STEM, social science and educational research, as well as team members with experience advancing the AGEP populations and the policies and practices that positively affect their career progress. The plan must clearly identify the roles and responsibilities of each collaborating IHE and partnering organization, as well as for every team member.

5. All proposals should provide, as part of the Project Description, a single goal statement for the AGEP Alliance. The goal statement should reflect an actionable item(s) that is/are measurable and reasonably achievable during the requested duration of the AGEP Alliance. The proposal may or may not include objectives, but these must also be actionable, measurable, and achievable during the proposed duration.

6. Proposals should also provide, as part of the Project Description, detailed descriptions of the evidence-based approaches, strategies, and interventions or actions they plan to implement to address the AGEP Alliance goal, the objectives (if objectives are included), goal progress and goal achievement.

7. Proposals must address, as part of the Project Description, the plan for assessment of AGEP Alliance model project progress and success. Mechanisms and strategies must be in place to assess project successes. Details should be provided about engaging an external advisory board, publishing project work in peer-reviewed journals, and conducting project evaluation activities. It is required that an AGEP Alliance proposal include a formative and summative evaluation plan, with the formative component constituting the AGEP Alliance self-study and testing component. It is recommended that proposers include, as part of the Project Description, an evaluation plan that does not exceed two pages. The plan should be developed with internal and external evaluators who have appropriate expertise to conduct the work. The internal evaluator shall conduct the formative assessment, while the external evaluator shall conduct the summative evaluation. Explicit formative and summative project evaluation questions should be stated with a detailed description of the methods that will be used to conduct the evaluation and address the questions. Assessments must be directly linked to the AGEP Alliance logic model; and must address the AGEP Alliance's proposed activities; short-term, mid-term and long-term outcomes; and impacts. Key mechanisms that affect AGEP Alliance success or failure, which include socio-cultural, economic, structural, and institutional variables, should also be described in the evaluation plan with steps describing careful examination of such factors. The collection and reporting of project-related data and participants' evaluations of activities alone are insufficient for AGEP Alliance project evaluation. The evaluation plan should also describe actions for identifying unexpected results; for how the internal and external evaluators will work with the AGEP Alliance team to help them use the evaluation data for continuous improvement of the project; for participating and sharing evaluation work at the AGEP National Research Conferences, the AGEP Evaluation and Capacity Building Conferences, and other AGEP-funded meetings and/or with any resource networks or centers; and for publishing the project evaluation work.

8. While NSF requires specific statements about Broader Impacts, the Project Description should also include specific and detailed statements
about the specific knowledge and societal benefits that are expected to result from the AGEP Alliance project, and how those outcomes and impacts will be realized.

9. The Project Description must include a detailed dissemination plan that describes who is responsible for leading the plan and the activities that will take place across the Alliance partner institutions, locally, regionally, and nationally. There should also be a detailed description of the specific journals that are targeted for peer-reviewed publication and when the publications are anticipated during the requested project duration.

10. It is important to have contingency plans for your proposed project, in light of potential short- and long-term effects of the COVID-19 pandemic. Please describe your plans for adjusting this project, as needed, in response to the pandemic.

11. No more than 10% of the requested Total Direct Costs (Budget Line I) may be requested for Participant Support Costs (Budget Lines F1, F2, F3 & F4) to cover stipends, travel, subsistence and other expenses for the participants who are members of the AGEP populations. The budget request should also include sufficient funds for the project team members to attend the annual AGEP National Research Conferences, the AGEP Evaluation and Capacity Building Conferences, any additional AGEP-funded community conferences, and those conferences where project networks will be integrated and scaled with other NSF-funded projects. Additionally, sufficient funds should be requested to address costs for participating with an AGEP Resource Center or any external entity that requests that the Alliance share project data with them, and for participating in ITA and FC-PAM first, third and fourth year site visits.

12. Only the following documents may be submitted as Supplementary Documents: A data management plan (NSF required); a postdoctoral researcher mentoring plan if the budget includes support for postdoctoral researchers who are working on the project (NSF required); letters of collaboration from partnering organizations for which the partnership is through a subawardee relationship (program required); letter(s) of collaboration from the NSF-initiated project representative(s) who are partnering for the additional collaboration funding opportunity (program required); a one-page project organizational chart that illustrates how the project fits into the existing organization(s) (program required); and biographical sketch(es) for external evaluator(s), consultants, or non-senior personnel who are key members of the Alliance team (program required).

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Other Budgetary Limitations:

- Domestic travel should include plans for each partnering institution to send at least one PI to attend a one or two day grantee meeting in the Washington, DC area each year of the project.
- No more than 10% of the requested Total Direct Costs (Budget Line I) may be requested for Participant Support Costs (Budget Lines F1, F2, F3 & F4) to cover stipends, travel, subsistence and other expenses for the participants who are members of the AGEP populations.

C. Due Dates

Letter of Intent Due Date(s) (required) (due by 5 p.m. submitter's local time):

June 02, 2021

Letters of Intent are only required for those planning to submit a full AGEP Faculty Career Pathways Alliance Model proposal. Submitting a letter of intent automatically allows you to submit a full proposal to the August 24, 2021 deadline.

June 02, 2022

Letters of Intent are only required for those planning to submit a full AGEP Faculty Career Pathways Alliance Model proposal. Submitting a letter of intent automatically allows you to submit a full proposal to the August 25, 2022 deadline.

Preliminary Proposal Due Date(s) (required) (due by 5 p.m. submitter's local time):

February 08, 2022

Second Tuesday in February, Annually Thereafter

Preliminary proposals are only required for institutions of higher education that want to submit a full AGEP Institutional Transformation Alliance proposal.

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

August 17, 2021

Third Tuesday in August, Annually Thereafter

AGEP Catalyst Alliance proposals.

August 24, 2021

AGEP Faculty Career Pathways Alliance Model proposal deadline. A Letter of Intent must first have been submitted.

March 29, 2022
The programs, projects, and activities it considers and supports.

STEM disciplines, which is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to NSF's mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

and participate in the U.S. technology-based economy. NSF's contribution to the national innovation ecosystem is to provide cutting-edge research under the integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the

A. Merit Review Principles and Criteria

For Proposals Submitted Via Research.gov:

To prepare and submit a proposal via Research.gov, see detailed technical instructions available at: https://www.research.gov/research-portal/appmanager/base/desktop?_nfpb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationandSubmission.html. For Research.gov user support, call the Research.gov Help Desk at 1-800-673-6188 or e-mail rgov@nsf.gov. The Research.gov Help Desk answers general technical questions related to the use of the Research.gov system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: https://www.grants.gov/web/grants/applicants.html. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

D. Research.gov/Grants.gov Requirements

For Proposals Submitted Via Research.gov:

For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: https://www.grants.gov/web/grants/applicants.html. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF either as ad hoc reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in PAPPG Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: https://www.nsf.gov/bfa/dias/policy/merit_review/.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in Leading the World in Discovery and Innovation, STEM Talent Development and the Delivery of Benefits from Research - NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the strategic objectives in support of NSF's mission is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions must recruit, train, and prepare a diverse STEM workforce to advance the frontiers of science and participate in the U.S. technology-based economy. NSF's contribution to the national innovation ecosystem is to provide cutting-edge research under the guidance of the Nation's most creative scientists and engineers. NSF also supports development of a strong science, technology, engineering, and mathematics (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

NSF's mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.
The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF’s mission “to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.” NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. Both criteria are to be given full consideration during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (PAPPG Chapter II.C.2.d(i). contains additional information for use by proposers in development of the Project Description section of the proposal). Reviewers are strongly encouraged to review the criteria, including PAPPG Chapter II.C.2.d(i), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. **What is the potential for the proposed activity to**
   a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
   b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. **To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?**
3. **Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?**
4. **How well qualified is the individual, team, or organization to conduct the proposed activities?**
5. **Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?**

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and other underrepresented groups in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

Additional Solicitation Specific Review Criteria

There are additional review criteria for all AGEP proposals, and reviewers will be asked to specifically evaluate:

- How well does the proposal address a collaborative Alliance approach to advancing more than one stage along the pathway to faculty promotion and/or tenure for AGEP populations?
- How well does the proposal use an intersectional lens and perspective to address systemic and institutional changes in practices and policies that advance AGEP populations?
- How strong is the plan and institutional commitment to institutionalize and sustain the proposed project activities after NSF funding has expired?

There is one additional review criterion for FC-PAM proposals, and reviewers will be asked to specifically evaluate:
How well does the proposal include a plan to self-study the IHE collaborations to examine and investigate how socio-cultural, economic, structural and institutional variables affect the formation of the Alliance and the strategies or interventions the collaborators implement to advance the AGEP Alliance and the AGEP populations?

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review.

Reviewers will be asked to evaluate proposals using two National Science Board approved merit review criteria and, if applicable, additional program specific criteria. A summary rating and accompanying narrative will generally be completed and submitted by each reviewer and/or panel. The Program Officer assigned to manage the proposal’s review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF strives to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new awardees may require additional review and processing time. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director acts upon the Program Officer’s recommendation.

After programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements or the Division of Acquisition and Cooperative Support for review of business, financial, and policy implications. After an administrative review has occurred, Grants and Agreements Officers perform the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

Once an award or declination decision has been made, Principal Investigators are provided feedback about their proposals. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers or any reviewer-identifying information, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to the submitting organization by an NSF Grants and Agreements Officer. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award notice, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award notice; (4) the applicable award conditions, such as Grant General Conditions (GC-1)*; or Research Terms and Conditions* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award notice.

Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF’s Website at https://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

Administrative and National Policy Requirements

Build America, Buy America

As expressed in Executive Order 14005, Ensuring the Future is Made in All of America by All of America’s Workers (86 FR 7475), it is the policy of the executive branch to use terms and conditions of Federal financial assistance awards to maximize, consistent with law, the use of goods, products, and materials produced in, and services offered in, the United States. Consistent with the requirements of the Build America, Buy America Act (Pub. L. 117-58, Division G, Title IX, Subtitle A, November 15, 2021), no funding made available through this funding opportunity may be obligated for an award unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States. For additional information, visit NSF’s Build America, Buy America webpage.


Special Award Conditions:
The ITA and FC-PAM awards will include a condition for a minimum of three site visits: one in the first, one in the third and one in the fourth year. The purpose of
the first-year site visit is to provide technical assistance. The purpose of the third-year site visit is to conduct an in-depth evaluation of performance, assess progress toward goals, provide advice and recommendations for enhancing project performance, and to determine satisfactory progress and continuation of support for the project. The purpose of the fourth-year site visit is to assess processes in place for, and progress that has been made for, sustainability and institutionalization after NSF funding expires.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). No later than 120 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF’s electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.


All awardee Annual and Final reports must include all available project evaluation reports from internal and external project evaluators, relevant project data and impact data, survey instruments, and other tools and materials developed by the project. Additionally, the reports must include copies of all materials that were shared during the site visits. Awardees must report data on revised or new infrastructure, policies, processes, and practices; participant demographics and outcomes; changes in STEM culture and climate; and any other data requested by NSF as part of the AGEP monitoring system. Finally, demographic data about the project participants must be included with participant-specific information about race, ethnicity, gender and United States citizenship, national status, or permanent residency in the United States.

AGEP awardees must contribute project related documents and materials to a national AGEP resource center, or hub, if made available to awardees at any time during the period of project performance.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Mark H. Leddy, Lead Program Director, telephone: (703) 292-4655, email: mleddy@nsf.gov
- Carrie Hall, Co-Lead Program Director, telephone: 703-292-4541, email: carhall@nsf.gov
- Keri Ann Sather-Wagstaff, Program Director, telephone: 703-292-2534, email: ksaotherw@nsf.gov
- Maurice Dues, Program Specialist, telephone: (703) 292-7311, email: mdues@nsf.gov

For questions related to the use of FastLane or Research.gov, contact:

- FastLane and Research.gov Help Desk: 1-800-673-6188
- FastLane Help Desk e-mail: fastlane@nsf.gov
- Research.gov Help Desk e-mail: rgov@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

IX. OTHER INFORMATION

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "NSF Update" also is available on NSF’s website.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at https://www.grants.gov.
ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the NSF Proposal & Award Policies & Procedures Guide Chapter II.E.6 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering. To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at https://www.nsf.gov

- Location: 2415 Eisenhower Avenue, Alexandria, VA 22314
- For General Information (NSF Information Center): (703) 292-5111
- TDD (for the hearing-impaired): (703) 292-5090
- To Order Publications or Forms:
  - Send an e-mail to: nsfpubs@nsf.gov
  - or telephone: (703) 292-8134
- To Locate NSF Employees: (703) 292-5111

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See System of Record Notices, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, "Reviewer/Proposal File and Associated Records." Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0056. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Policy Office, Division of Institution and Award Support