

National Science Foundation



Sponsored Research Services - Texas
A&M University Division of Research

The National Science Foundation (NSF)

- An independent Federal agency
- Funds research and education in most fields of science and engineering
- Annual budget: FY2024 request \$11.3 billion
- Unlike other science agencies, NSF does not maintain its own research laboratories
- Created by Congress in 1950

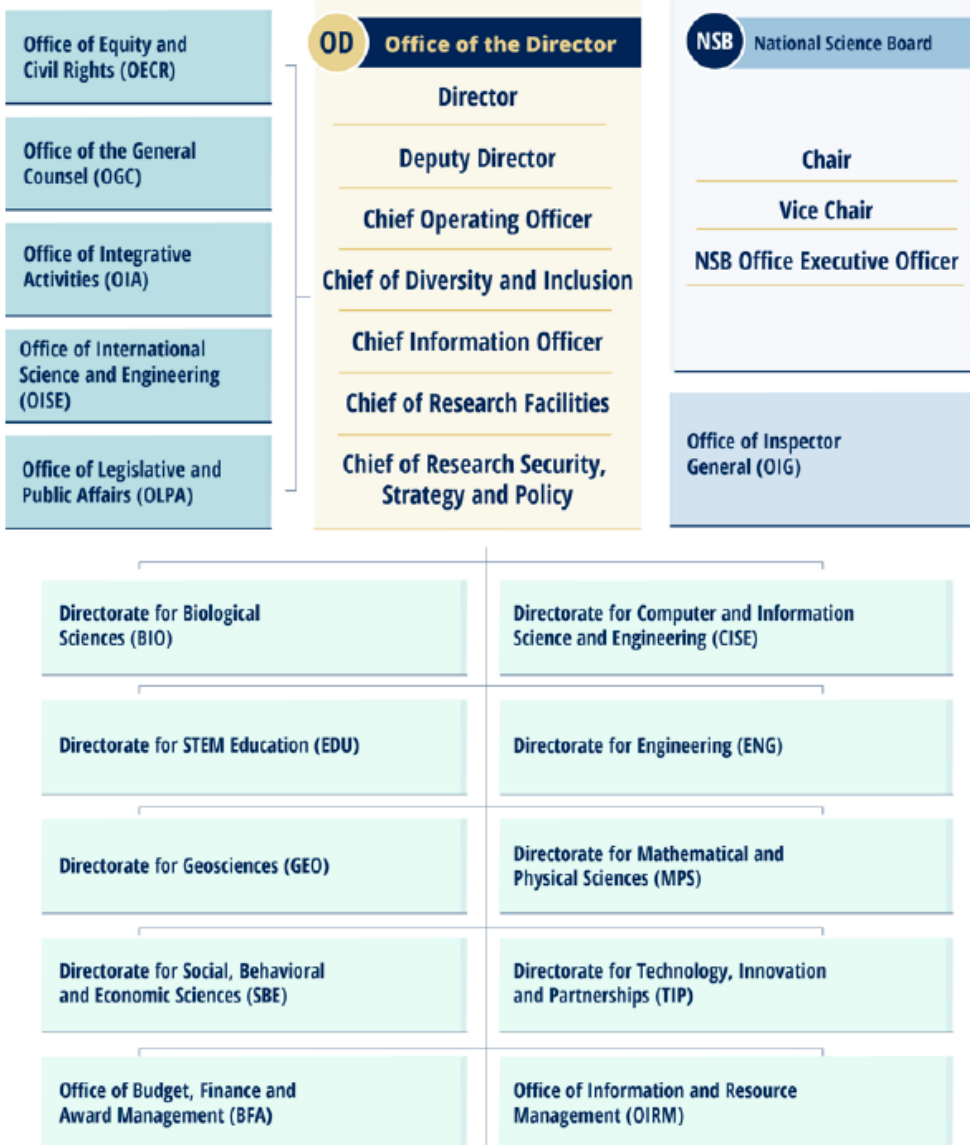


Mission: To promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense.

Vision: Advancing discovery, innovation, and education beyond the frontiers of current knowledge, and empowering future generations in science and engineering.



NSF ORGANIZATIONAL CHART





Offices that interact with Grantees

■ Division of Grants and Agreements

- From pre-award through closeout reviews to ensure compliance with NSF policies
- Responsible for the award and administration
- Grants & Agreements Officers (Grants Officers) have authority to issue awards and they review Program Officer's recommendations for funding

■ Policy Office

- responsible for issuance of NSF pre- and post-award policies
- provides guidance on policies and procedures
- Provides clearance - funding announcements



Office of the Inspector General (OIG)

- Independent oversight office that reports directly to the NSB and Congress
- Responsible for conducting audits, reviews, and investigations of NSF programs, and of organizations and individuals that apply for or receive NSF funding
- Investigates allegations of research misconduct, such as plagiarism, falsification, or fabrication

PAPPG – Proposal and Award Policies and Procedures Guide

- Provides guidance for preparation and submission of proposals to NSF
- Sets forth NSF policies regarding the award and administration of grants and cooperative agreements

NATIONAL SCIENCE FOUNDATION

PROPOSAL AND AWARD POLICIES AND PROCEDURES GUIDE



U.S. National
Science Foundation

Effective May 20, 2024
NSF 24-1
OMB Control Number 3145-0058



Categories of Proposers

1. **Institutions of Higher Education (IHEs)**
2. **Non-profit, Non-academic Organizations**
3. **For-profit Organizations**
4. **State and Local Governments**
5. **Unaffiliated Individuals** - rarely receive direct funding support from NSF
6. **Foreign Organizations** - NSF rarely provides funding support to foreign organizations
7. **Other Federal Agencies** - NSF does not normally support research or education activities by Federal agencies or Federally Funded R&D Centers (FFRDCs)



Not Eligible to Submit Proposals

Parties to Malign Foreign Talent Recruitment Programs

- Individuals who are a current party to a Malign Foreign Talent Recruitment Program are not eligible to serve as a senior/key person on an NSF proposal or any NSF award made after May 20, 2024.
- Senior/Key Personnel must certify prior to proposal submission and annually for the duration of the award.
- Certifications made in SciENCv on biosketch and current and pending support.



What does NSF Fund?

- Research Proposals
- Equipment proposals (Major Research Instrumentation, etc.)
- Conferences, symposia and workshops
- Travel proposals – domestic and international
- Joint solicitations with other agencies

Mechanisms to Communicate Funding Opportunities

- **Program Descriptions** broad, general descriptions of programs and activities in NSF Directorates/Offices and Divisions posted on their websites
- **Program Announcements** refers to formal NSF publications that announce NSF programs. Program announcements utilize the generic eligibility and proposal preparation guidelines specified in the PAPPG
- **Program Solicitations** refers publications that encourage the submission of proposals in specific program areas of interest to NSF; more focused than program announcements, and normally apply for a limited period of time.
- **Dear Colleague Letters** (DCLs) provide general information to the community, clarify or amend an existing policy or document, or inform the NSF proposer community about upcoming opportunities or special competitions for supplements to existing awards.



Program Suitability & Proposal Concept Tool

- The Program Suitability & Proposal Concept Tool (ProSPCT) is for prospective Principal Investigators (PIs) to contact National Science Foundation (NSF) to determine suitability of a project idea prior to submission of a proposal.
- Log in to ProSPCT via Login.gov
- Submissions made via this form will be routed within NSF for initial review by relevant program staff
- An assigned cognizant Program Officer will respond to your submission



Types of Submissions

- **Letters of Intent (LOI)** - is non binding document that helps NSF program staff gauge the size and range of the competition, enabling earlier selection and better management of reviewers and panelists.
- The information contained in an LOI is used to help avoid potential conflicts of interest in the review process.

Preliminary Proposals

Reasons for requiring submission of a preliminary proposal are to:

- Reduce the proposers' unnecessary effort in proposal preparation when the chance of success is very small. This is particularly true of exploratory initiatives when the community senses that a major new direction is being identified, or competitions that will result in a small number of awards;
- Increase the overall quality of the full submission; and
- Assist NSF program staff in managing the review process and in the selection of reviewers.
- Invite/Not Invite Decisions
- Encourage/Discourage Decisions

Full Proposals

- (1) objectives and scientific, engineering, or educational significance of the proposed work;
 - (2) suitability of the methods to be employed;
 - (3) qualifications of the investigator and the grantee organization;
 - (4) effect of the activity on the infrastructure of science, engineering and education, if applicable;
 - (5) amount of funding required
- It should present the intellectual merit and broader impacts of the proposed project



When to Submit Proposals?

- Deadline of 5 p.m. submitter's local time is tied to the organization, and not the location of the PI.
- **Target dates:** dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting
- **Deadline dates:** dates after which proposals will not be accepted or will be returned without review by NSF
- **Submission windows:** designated periods of time during which proposals will be accepted for review by NSF. It is NSF's policy that the end date of a submission window converts to, and is subject to, the same policies as a deadline date
- **Special Exceptions to NSF's Deadline**

Electronic Submission of Proposals






Submission of Proposals by Former NSF Staff

- From one year following separation from the foundation by a former employee or IPA
- Must name a “substitute negotiator” for a new proposal.
- Must be from the same organization as the PI or co-PI
- Information should be submitted as a single copy document and uploaded in the “Additional Single Copy Documents” category.



Sections of the Proposal

- Single Copy Documents
- Cover Page
- Project Summary (1 page)
- Table of Contents – automatically generated
- Project Description (15 pages)
- References Cited
- Facilities, Equipment, and Other Resources
- Budget and Budget Justification (limited to 5 pages)
- Senior Personnel Documents
 - Biographical Sketches (each limited to 3 pages)
 - Current & Pending Support
 - Collaborators and Other Affiliations Information
 - Synergistic Activities
- Special Information and Supplementary Documentation



Proposal Single-Copy Documents for “NSF Use Only”

- a) Authorization to deviate from NSF proposal preparation requirements
- b) List of Suggested Reviewers or reviewers Not to include
- c) Proprietary or privileged information
- d) Proposal certifications
- e) Collaborators and other affiliations information



Project Summary

- Summary of the proposed project not more than one page in length. The Project Summary consists of an overview, a statement on the intellectual merit of the proposed activity, and a statement on the broader impacts of the proposed activity.
- Overview
 - description of the activity that would result
 - statement of objectives and methods
- Intellectual merit should describe the potential of the proposed activity to advance knowledge.
- Broader impacts should describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes.


Project Description (15 pages)

- Detailed description of the project's overall purpose, specific objectives and expected significance including contribution to present state of knowledge and description of experimental methods and procedures.
- Proposers should address what they 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.
- Results from prior NSF support, includes an award with an end date in the past five years; or any current funding, including any no cost extensions (limited to 5 pages)
- Section labeled "Broader Impacts"



References

- This section is required
- Include: Author(s), article and journal title, vol. #, page numbers, year of publication
- If available electronically, include URL
- Follow an accepted scholarly format
- Do NOT include commentary parenthetical to narrative!
- No page limit



Facilities, Equipment, and Other Resources

- Used to assess the adequacy of the resources available to perform the effort proposed
- Proposers should include an aggregated description of the internal and external resources (both physical and personnel) that the organization and its collaborators, and subawardees will provide to the project, should it be funded
- Should be narrative in nature and must not include any quantifiable financial information
- These resources are not considered voluntary committed cost sharing



Budget and Budget Justification

- Must be supplied for each year of project duration. System will generate cumulative budget
- Inclusion of Voluntary Committed cost sharing is prohibited. Mandatory cost sharing is shown on Line M if the funding opportunity requires it.
- Budget Justification should document and justify each budget line item (5-page limit). Should detail the rates of pay by individual for senior personnel, postdoctoral associates, and other professionals.
- As a general policy, NSF limits the salary compensation requested in the proposal budget for senior personnel to no more than **two months of their regular salary in any one year.**
- Each subaward must include a separate detailed budget and budget justification (5 page limit).

Participant Support

- Refers to direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with NSF-sponsored conferences or training projects.
- Payments to human subjects are not participant support and these costs go under the “Other Direct Cost” category.
- Speakers and trainers generally are not considered participants and should not be included in this section of the budget.
- May not be budgeted to cover room rental fees, catering costs, supplies, etc. related to an NSF-sponsored conference.

Cost Share - Voluntary Committed and Uncommitted Cost Sharing

- *Voluntary committed cost sharing* means cost sharing specifically pledged on a voluntary basis in the proposal's budget and becomes a binding requirement of Federal award. **Inclusion of voluntary committed cost sharing is prohibited by NSF.**
- Mandatory cost sharing will only be required for NSF programs when explicitly authorized by the NSF Director, the NSB, or legislation. Mandatory cost sharing is shown on line M of the budget.
- Organizational resources are described in the Facilities, Equipment and Other Resources section.
- Grantee may, at its own discretion, continue to contribute voluntary uncommitted cost sharing.



Biographical Sketches

- Must be created in SciENCv.
- This section has been revised to remove the 3-page limitation for the biographical sketch. There is no page limitation for this section of the proposal.
- The Synergistic Activities section has been removed from the biographical sketch.
- Disclose contracts associated with participation in programs sponsored by foreign governments including foreign government-sponsored recruitment programs.

Current and Pending Support

- Must be generated through SciENcv.
- Information on all current and pending support for ongoing projects and proposals, including current proposal.
- Overall Objective
- Summarize potential overlap with active or pending proposals
- Includes total award amount as well as the number of person-months per year to be devoted to the project
- Current project support from whatever source (e.g., Federal, State, local, foreign, public or private foundations, industrial or other commercial organizations, or internal funds allocated toward specific projects) must be listed.
- All other projects of time of the PI and any other senior personnel must be included, even if they receive no salary support from the project(s).



Current and Pending (Other) Support

In-Kind Contributions

In this section, disclose ALL in-kind contributions with an estimated dollar value of \$5000 or more **and** that require a commitment of the individual's time. Provide a brief statement of the overall objectives of the in-kind contribution(s).

An in-kind contribution is a non-cash contribution provided by an external entity that directly supports the individuals' research and development efforts.

An in-kind contribution may include but is not limited to: real property; laboratory space; equipment; data or data sets; supplies; other expendable property; goods and services; employee or student resources.

In-kind contributions with an estimated value of less than \$5000 need not be reported.

Collaborators and other affiliations information (COA)

- Information is used to manage reviewer selection
- Must be separately provided for each individual identified as senior personnel on the project
- Table 1: List the individual's name and organizational affiliation in the last 12 months
- Table 2: List names or whom a personal, family, or business relationship would otherwise preclude their service as a reviewer
- Table 3: The individual's Ph.D. advisors; and •All of the individual's Ph.D. thesis advisees
- . Table 4: Co-authors and Collaborators on projects, such as funded awards in the last 48 months.
- Table 5: List editorial board, editor-in chief, and co-editors of journal or collections with whom the individual has directly interacted in the last 24 months.



Synergistic Activities

- The Synergistic Activities section has been removed from the biographical sketch.
- This information must now be submitted by individuals designated as senior/key persons as part of the senior/key personnel documents in Research.gov. (a separate upload for each person)
- May be up to one page that includes up to five distinct examples that demonstrate the broader impact of the individual's professional and scholarly activities that focus on the integration and transfer of knowledge as well as its creation.

Data Management Plan

- All proposals must describe plans for data management and sharing of the products of research.
- Proposals must include a document of no more than two pages uploaded under "Data Management Plan" in the supplementary documentation section.
 1. the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;
 2. the standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies);
 3. policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
 4. policies and provisions for re-use, re-distribution, and the production of derivatives; and
 5. plans for archiving data, samples, and other research products, and for preservation of access to them



Mentoring Plan

NSF grant applications that include funding support for post-doctoral fellows and graduate students must include a mentoring plan. In no more than one page, the mentoring plan must describe the mentoring that will be provided to all postdoctoral researchers and graduate students supported by the project, regardless of whether they reside at the submitting organization, any subrecipient organization, or at any organization participating in a simultaneously submitted collaborative proposal.

Examples of mentoring activities include:

- career counseling;
- training in preparation of grant proposals
- Training in publications and presentations
- guidance on ways to improve teaching and mentoring skills
- guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas
- training in responsible professional practices.



Individual Development Plans for Postdoctoral Scholars or Graduate Students

- Requirement for postdoctoral scholars or graduate students who receive substantial NSF support must have an Individual Development Plan which is required to be updated annually.
- NSF defines “substantial support” as an individual that has received one person month or more during the annual reporting period under the NSF award.
- The plan maps the educational goals, career exploration, and professional development of the individual.
- Certification that each graduate student or postdoctoral scholar has a plan is completed by the PI or Co-PI in Research.gov as part of the annual reporting process.



Additional Documentation

Special Info and Supplementary Documentation

- Included if needed for special circumstances (Performing part of project off campus or in foreign countries, documenting collaborative arrangements, environmental impacts, etc.)
- Not to be used as an appendix

Letters of Collaboration – limited to stating the intent to collaborate, should not contain endorsement or evaluation of the proposal.

Letters of Support – not allowed unless required by specific solicitation

Appendix - May be included only if a deviation from guidelines has been requested and authorized by NSF!



Optional Sections

Other Personnel Biographical Information

- Postdoctoral researchers, Other Professionals, or Students
- Should include information on exceptional qualifications that merit consideration in the evaluation of the proposal

Other Supplementary Documents

- As specified in the funding opportunity announcement
- Multiple files can be uploaded in this section.

List of Suggested Reviewers (NSF Single Copy Document)

List of Reviewers Not to Include (NSF Single Copy Document)

Deviation Authorization – May be included only if a deviation from guidelines has been requested and authorized by NSF!

Additional Single Copy Documents – not seen by reviewers. Example: AOR designation of a substitute negotiator



Seeking and Obtaining Tribal Nation Approval for Proposals that May Impact Tribal Resources or Interests

- Proposals that may impact the resources or interests of a federally recognized American Indian or Alaskan Native Tribal Nation **will not be awarded** without prior written approval from the designated officials of the Tribal Nation.
- Check the box on the Cover Sheet entitled "*Potential Impacts on Tribal Nations.*"
- Include in Supplementary Documents at least one of the following:
 - (i) a copy of the written request to the relevant Tribal Nation to carry out any proposed activity/activities
 - (ii) written confirmation from the Tribal Nation that review and approval is not required
 - (iii) a copy of a document from the relevant Tribal Nation that provides the requisite approval.

Safe and Inclusive Working Environments for Off-Campus or Off-Site Research

- For each proposal that proposes to conduct research off-campus or off site, the AOR must complete a certification that the organization has a plan in place for that proposal that describes how the following types of behavior will be addressed:
- a. Abuse of any person, including, but not limited to, harassment, stalking, bullying, or hazing of any kind, whether the behavior is carried out verbally, physically, electronically, or in written form; or
- b. Conduct that is unwelcome, offensive, indecent, obscene, or disorderly.



Conference Proposal

- Proposers are required to have a policy or code-of-conduct that addresses sexual harassment, other forms of harassment, and sexual assault, and that includes clear and accessible means of reporting violations of the policy or code-of-conduct.
- Must be disseminated to conference participants prior to attendance at the conference as well as made available at the conference itself. Proposers should not submit the policy or code-of-conduct to NSF for review.



Separate Collaborative Proposals

- Proposals from 2+ institutions linked together in Research.gov with one lead organization
- Title begins with “Collaborative Research”
- Each institution is awarded funds separately by NSF, but work together as a common unit on research
- Lead organization will link proposals from collaborative institutions by using a temporary proposal #
- All components of the collaborative proposal must meet any established deadline date, and failure to do so may result in the entire collaborative proposal being returned without review.
- Alternative: Single Proposal Method, Lead institution subcontracts to collaborators



Separate Collaborative

Lead Organization

Cover Sheet

Project Summary

Project description

References Cited

Biographical Sketches

Budget/Budget Justification

Current & Pending Support

Facilities, Equipment & Other
Resources

Data Management Plan

Mentoring Plan

Collaborators & Other

Affiliations

Non-Lead Organization

Cover Sheet

Biographical Sketches

Budget/Budget Justification

Current & Pending Support

Facilities, Equipment & Other
Resources

Collaborators & Other
Affiliations

Rapid Response Research (RAPID) Proposal

Rapid release of funds and expedited merit review

having a severe urgency with regard to availability of, or access to data, facilities or specialized equipment, including quick-response research on natural or anthropogenic disasters and similar unanticipated events

Requirements:

- Program Manager approval
- Budget consistent with project scope and existing programmatic activities (up to \$200K for 1 year)
- Require internal review/with optional external input
- Up to 5-page project description
- Title begins with RAPID:



Early Concept Grant for Exploratory Research (EAGER)

Used to support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.

High risk-high payoff" in the sense that it, for example, involves radically different approaches, applies new expertise, or engages novel disciplinary or interdisciplinary perspectives.

- Contact Program Officer for prior submission approval
- No more than 8 page project description
- Up to \$300K and up to two year duration
- Internal review with optional external input



Research Advanced by Interdisciplinary Science and Engineering (RAISE) Proposal

RAISE is a type of proposal that may be used to support bold, interdisciplinary projects whose:

1. Scientific advances lie in great part outside the scope of a single program or discipline, such that substantial funding support from more than one program or discipline is necessary.
 2. Lines of research promise transformational advances.
 3. Prospective discoveries reside at the interfaces of disciplinary boundaries that may not be recognized through traditional review or co-review.
- Contingent on Two Program Officers' approval to submit a proposal
 - Requests may be for up to \$1,000,000 and up to five years in duration.

Grant Opportunities for Academic Liaison with Industry (GOALI) Proposal

Type of proposal that seeks to stimulate collaboration between academic research institutions and industry. GOALI is not a separate program; GOALI proposals must be submitted to an active NSF funding opportunity

- Contact the Program Officer prior to submission
- At least one industrial co-PI must be listed on the Cover Sheet at the time of submission although the industrial participant **cannot use or receive any NSF funds, unless small business.**
- Letter from the industrial partner that confirms the participation of a co-PI from industry must be submitted with the proposal
- Academic and industry partners should agree in advance as to how intellectual property (IP) rights will be handled.



Ideas Lab Proposal

- Supports the development and implementation of creative and innovative project ideas that have the potential to transform research paradigms and/or solve intractable problems. The Ideas Lab type of proposal is implemented using the four-stage process:
- Stage 1: Selection of Panelists
- Stage 2: Selection of Participants
- Stage 3: Ideas Lab - A diverse sub-set of participants from a range of disciplines and backgrounds will be selected from the submitted applications by NSF and will be brought together in an intensive, interactive and free-thinking environment, where participants immerse themselves in a collaborative dialog in order to construct bold and innovative approaches.
- Stage 4: Review and recommendation of full proposals - a sub-set of these teams are then invited to submit full proposals.



Facilitation Awards for Scientists and Engineers with Disabilities (FASSED)

- To reduce or remove barriers to participation in research and training by persons with physical disabilities by providing special equipment and assistance under awards made by NSF
- To encourage persons with disabilities to pursue careers in science and engineering by stimulating the development and demonstration of special equipment that facilitates their work performance.



Research Opportunity Supplemental Funding Requests for Primarily Undergraduate Institutions (ROA-PUI)

- Enables a faculty member (or equivalent), to pursue research as part of a collaborative research team as a visiting scientist at another NSF-supported institution.
- Either the visitor's home organization, or the host organization, or both, must be an eligible Primarily Undergraduate Institution (PUI) of higher education.
- Is intended to increase or maintain a PUI faculty member's research capability and effectiveness
- A formal request for an ROA supplement must be made by the host institution of the NSF-supported PI who wishes to host a faculty member from a PUI institution.



NSF Graduate Research Fellowships

Five Year Awards – \$138,000

Three years of financial support

- \$34,000 stipend each year to the graduate institution
- \$12,000 educational allowance directly to graduate institution
- In lieu of tuition and fees

Other NSF Opportunities

- INTERN – non-academic internship program
- FASED Individuals with Disabilities support
- Career-Life Balance Initiative (family leave)



Non-Award Decisions and Transactions

- Withdrawal – may be done anytime prior to a funding recommendation
 - PI or Sponsored Projects office may initiate
- Proposal Not Accepted or Returned Without Review
- Declinations – PI – will receive information and an explanation of the reason(s) for declination along with copies of the reviews
- Reconsideration - If the PI is not satisfied that the proposal was fairly handled and reasonably reviewed, may request reconsideration
- Resubmission – only after it has undergone substantial revision

Issuing the Award

- NSF's Division of Grants and Agreements (DGA) reviews the recommendation from the program office for business, financial, and policy implications.
- NSF's grants and agreements officers make the official award as long as:
 - The institution has an adequate grants management capacity.
 - The PI/Co-PIs do not have overdue annual or final reports.
 - There are no other outstanding issues with the institution or PI.

Types of Awards

- **Standard Grants** - a type of grant in which NSF agrees to provide a specific level of support for a specified period of time with no statement of NSF intent to provide additional future support without submission of another proposal. Typically a 3 or 5 year award period.
- **Continuing Grant** - a type of grant in which NSF agrees to provide a specific level of support for an initial specified period of time, usually a year, with a statement of intent to provide additional support of the project for additional periods, provided funds are available and the results achieved warrant further support.
- **Supplements** - In unusual circumstances, small amounts of supplemental funding and up to six months of additional support may be requested to assure adequate completion of the original scope of work.

NSF Awards

- Grantees are free to accept or reject the grant as awarded
- NSF transmits award notices to organizations via e-mail.
- **Normally a request to drawdown funds constitutes acceptance, however in limited circumstances NSF may require formal acceptance of a grant.**
- Composition of an NSF award includes:
 - The award notice including any special conditions applicable to the award and any numbered amendments
 - General Federal award information required by 2CFR 200.21
 - The budget, which indicates the amount by categories of expenses
 - The applicable NSF general conditions referenced in the award notice
 - The proposal referenced in the award notice
 - Any NSF program announcement, program solicitation or other document or special requirements incorporated by reference in the award notice.



Grantee Responsibilities

The grantee has full responsibility for the conduct of the project or activity supported under an NSF grant and for the results achieved. Assure that expenditures are allowable, necessary and reasonable for the conduct of the project, and that the proposed action:

- is consistent with grant terms and conditions;
- is consistent with NSF and grantee policies;
- represents effective utilization of resources; and
- does not constitute changes in objectives or scope.



Grantee Notifications to NSF and Requests for NSF Approval

Grantee approved no-cost extension – one time up to 12 months

Changes in objective or scope

- Significant changes in Methods or Procedures
- Significant changes, delays or Events of Unusual Interest

Changes in PI/PD, co-PI/co-PD or Person-Months Devoted to the Project

- Changes in PI/PD, co-PI/co-PD or Person-Months Devoted to the Project
- Disengagement of PI for period greater than 3 months
- Withdrawal of PI/PD or co-PI/co-PD
- Substitute PI/PD or co-PI/co-PD
- Disposition of a Grant When a PI/PD Transfers from One Organization to Another Organization

Subawarding, Transferring or Contracting Out Part of an NSF Award (Subaward)



PI Transfers

- Option to nominate a substitute PI
- Request that the grant be terminated and closed out
- Facilitate transfer of the grant to the new organization via a tripartite agreement (NSF and original and new organization)
 - Original organization relinquishes the award completes online transfer request including total disbursements
 - PI provide brief summary of progress to date and description of work to be done
 - New organization provides detail budget for the transferred amount