Presenters

- David Hollingsworth, Director of Professional Development and Outreach, SRS, Texas A&M University
- Sue Hibbs, Associate Director of Proposal Services, SRS, Texas A&M University
- Dr. Sharmila Pathikonda, Director of Research Development, The Texas A&M University System
Created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense"
NSF by the Numbers

93% Funds research, education and related activities

$8.8B FY 2022 Enacted

43,600 Proposals evaluated

2,000 NSF-funded institutions

11,300 Number of awards NSF funds each year

318K People NSF supported

$1.5B STEM education

$181M* To seed public/private partnerships

253 NSF-funded Nobel Prize winners

Data represents FY 2021 Actuals unless otherwise indicated.
*Corresponds to NSF investments initiated in FY 2021 and spanning multiple years.
NSF SUPPORT OF ACADEMIC BASIC RESEARCH IN SELECTED FIELDS
(as a percentage of total federal support)

- **Computer Science**: 79%
- **Mathematics**: 71%
- **Biology**: 65%
- **Social and Psychological Sciences**: 65%
- **Environmental Sciences**: 61%
- **Engineering**: 45%
- **Physical Sciences**: 37%
- **All Science and Engineering Fields**: 24%
Figure 1.3. INSTITUTIONS FUNDED BY NSF
FY 2021 OBLIGATIONS FOR RESEARCH AND EDUCATION PROGRAMS
($8,262 million)

- COLLEGES, UNIVERSITIES, AND ACADEMIC CONSORTIA: 80% ($6,594 million)
- PRIVATE INDUSTRY (includes non-profit organizations): 13% ($1,047 million)
- OTHER (includes federal, state, and local governments; and international organizations): 4% ($322 million)
- FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS: 4% ($298 million)

NSF Research and Education programs include Research and Related Activities, Education and Human Resources, and Major Research Equipment and Facilities Construction appropriations. Totals may not add due to rounding.
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
Proposed Changes to PAPPG

- Require use of SciENcv to prepare the Biographical Sketch
- Require use of SciENcv to prepare the Current and Pending Support
- Program officers will request updated Current and Pending Support prior to making a funding recommendation
- Encourage individuals to obtain an ORCID ID to facilitate pre-population associated with preparation of the biographical sketch
Proposed Changes to PAPPG

- Broad Agency Announcement (BAAs) have been added as a new type of funding opportunity at NSF
- Required use of the ProSPCT tool for submission of concept outlines
Types of Submissions

- Letters of Intent (LOI)
- Concept Outline
- Preliminary Proposals
- Full Proposals
- Broad Agency Announcements (New)
Electronic Submission of Proposals

Phasing out FastLane

Replace with Research.gov

Presented by Sponsored Research Services
Sections of the Proposal

a) Cover Sheet
b) Project Summary (1 page)
c) Project Description (15 pages)
d) References Cited
e) Budget and Budget Justification (limited to 5 pages)
f) Facilities, Equipment, and Other Resources
g) Senior Personnel Documents
   i. Biographical Sketches
   ii. Current & Pending Support
   iii. Collaborators & Other Affiliations (Single Copy Document)
h) Data Management Plan
i) Postdoctoral Mentoring Plan (Conditionally required)
Sections of the Proposal

- Optional
  - Other Personnel Biographical Information
  - Other Supplementary Documents
  - List of Suggested Reviewers (Single Copy Document)
  - List of Reviewers Not to Include (Single Copy Document)
  - Deviation Authorization (Single Copy Document)
  - Additional Single Copy Documents
Project Summary

- Summary of the proposed project not more than one page in length.

- Overview
  - description of the activity that would result if proposal is funded
  - statement of objectives and methods to be employed

- 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 (typically 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 for PI or Co-PI, 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)

- Must contain a section labeled “Broader Impacts"
References Cited

- Follow accepted scholarly practices in providing citations for source materials
- References should avoid the use of et al. (except for large consortia papers)
- Page limit – as needed
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.

- Each subaward must include a separate detailed budget and budget justification (5 page limit).

- Your SRS Proposal Administrator will work with you on the budget and input it into the system when finalized. Any subaward institutions will be asked to input their budgets.
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.
Facilities, Equipment and Other Resources

- Used to assess the adequacy of the resources available to perform the effort proposed to satisfy both the Intellectual Merit and Broader Impacts review criteria.
- Should describe only those resources that are directly applicable.
- Narrative in nature.
- Should not include any quantifiable financial information.
Senior Personnel Documents

- Spaces to upload
  - Biographical Sketch
  - Current and Pending Support
  - Collaborators and Other Affiliations
    - Considered a Single Copy Document (for NSF use only)
Biographical Sketch

- Must be submitted through use of an NSF-approved format (fillable forms OR SciENcv only approved formats at this time) Effective January 2023 only SciENcv is accepted
- Help us get your researchers signed up on SciENcv
- Required for Senior Personnel (PI’s, co-PI’s and Faculty Associates)

- Three-page limit, NSF format required: (increased from 2 pages 10/4/21)
  - Professional preparation
  - Appointments
  - Products (Publications, data sets, software, patents, copyrights))
  - Synergistic activities

- Optional: Other personnel w/exceptional qualifications may be listed (Postdocs, GRA’s, etc.)
Current and Pending Support

- Must be submitted through use of an NSF-approved format (fillable forms OR SciENcv only approved formats at this time) Effective January 2023 only SciENcv is accepted.
- Prior to making a funding recommendation, the cognizant NSF program officer will request that an updated version of Current and Pending Support be submitted via a Proposal File Update.
- 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).
### NSF Pre-award and Post-award Disclosures

#### Relating to the Biographical Sketch and Current and Pending Support

**Table Key**
- * = for new support only
- ◆ = if undisclosed at the time of proposal submission

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Biographical Sketch</th>
<th>Current &amp; Pending Support</th>
<th>Facilities, Equipment &amp; Other Resources</th>
<th>Project Reports</th>
<th>Post-Award Information Term &amp; Condition</th>
<th>Disclosure Not Required</th>
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</thead>
<tbody>
<tr>
<td>Undergraduate, graduate, and postdoctoral training, including location, major/area and degree and year</td>
<td>✔️</td>
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<td>Academic, professional or institutional appointments, whether or not remuneration is received, and, whether full-time, part-time, or voluntary</td>
<td>✔️</td>
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<tr>
<td>All projects (including this project) currently under consideration from whatever source, and all ongoing projects, irrespective of whether support is provided through the proposing organization, another organization or directly to the individual</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️*</td>
<td>✔️</td>
<td></td>
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</tr>
<tr>
<td>In-kind contributions that support the research activity for use on the project/proposal being proposed</td>
<td>✔️</td>
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</tbody>
</table>
Collaborators and Other Affiliations

- Download the required template and follow the instructions
- Classified as a Single Copy Document (NSF use only)
- NSF uses the information in the form to manage reviewer selection. It is not seen by reviewers.
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.
Postdoctoral Mentoring Plan

NSF grant applications that include funding support for post-doctoral fellows must include a mentoring plan.

-- No more than one page.
-- Must describe the mentoring that will be provided to all postdoctoral researchers 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.
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
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
- Postdoc 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
PHASE I

1. OPPORTUNITY ANNOUNCED
2. PROPOSAL SUBMITTED
3. PROPOSAL RECEIVED

PHASE II

4. REVIEWERS SELECTED
5. PEER REVIEW
6. PROGRAM OFFICER RECOMMENDATION
7. DIVISION DIRECTOR REVIEW

PHASE III

8. BUSINESS REVIEW
9. AWARD FINALIZED
Encourage Researchers to Become Reviewers

Reviewers benefit from reviewing and serving on panels

- Reviewers gain first-hand knowledge of the peer review process
- Learn about common problems with proposals
- Discover strategies to write strong proposals
- Through serving on a panel, meet colleagues and NSF program officers managing programs related to your interests
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)

Type of proposal used to support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches. May be considered especially "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**;
- 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.
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)