FAST FACTS

1950
Year Congress created NSF

$9.9B
NSF's FY 2023 Enacted Budget

93%
Percent of budget committed to research, education and related activities

11,000
Average Number of awards NSF funds each year

$255M
Amount NSF awards annually to businesses to move discoveries into the marketplace

$1.6B
Invested in STEM education

258
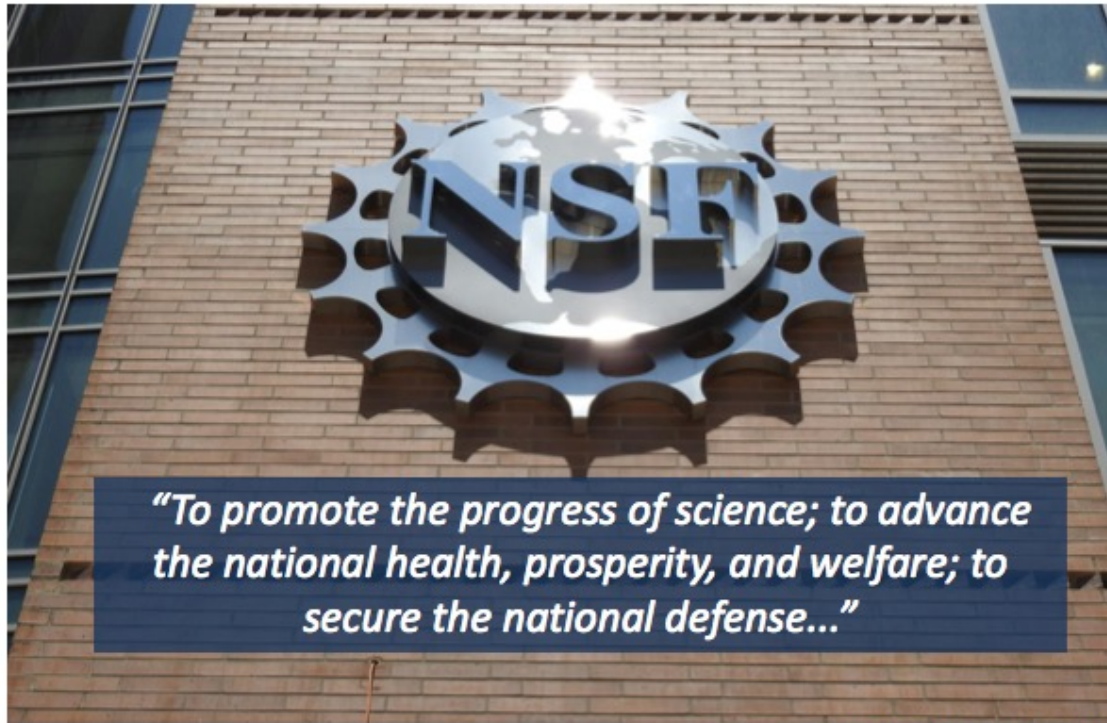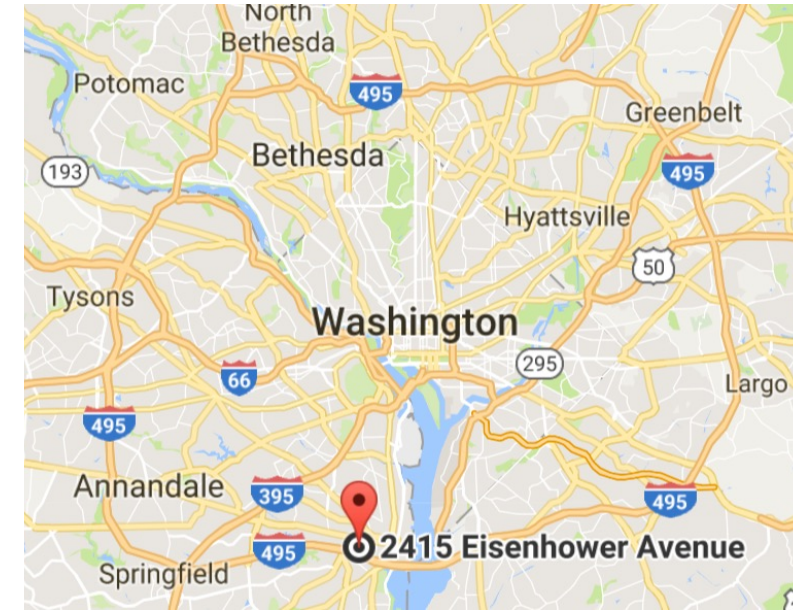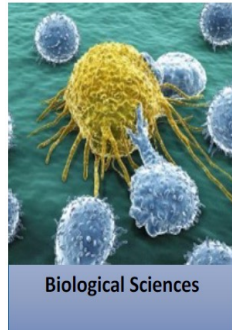Number of Nobel Prize winners who have received NSF funding

"To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..."
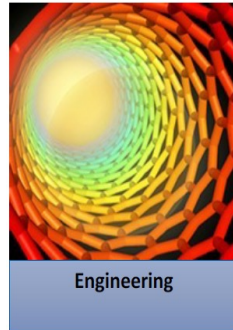
Photo Credit: Maria Barnes, NSF

2415 Eisenhower Avenue

NSF Research Directorates

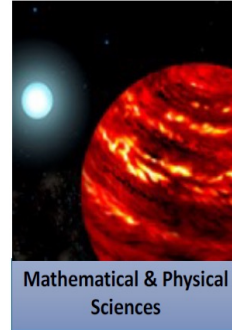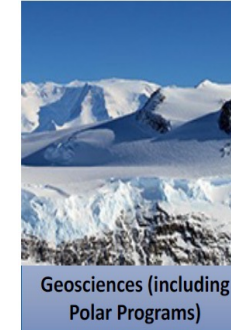| Biological Sciences	Engineering	Mathematical & Physical Sciences	Computer & Information Science & Engineering	Social, Behavioral & Economic Sciences	Education & Human Resources	Geosciences (including Polar Programs)	Technology Innovation and Partnerships
BIO	**ENG**	**MPS**	**CISE**	**SBE**	**EDU**	**GEO**	**TIP**

What is NSF?

[As Amended Through P.L. 112–166, Enacted August 10, 2012]

AN ACT To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, [42 U.S.C. 1861 note] That this Act may be cited as the "National Science Foundation Act of 1950".

ESTABLISHMENT OF NATIONAL SCIENCE FOUNDATION

SEC. 2. [42 U.S.C. 1861] There is hereby established in the executive branch of the Government an independent agency to be known as the National Science Foundation (hereinafter referred to as the "Foundation"). The Foundation shall consist of a National Science Board (hereinafter referred to as the "Board") and a Director.

FUNCTIONS OF THE FOUNDATION

SEC. 3. [42 U.S.C. 1862] (a) The Foundation is authorized and directed—

ABOUT NSF GRFP

SINCE 1952

70,000+
GRFPS AWARDED

40+ FELLOWS
HAVE GONE ON TO BECOME
NOBEL LAUREATES

FELLOW FROM/IN EVERY STATE

450+ FELLOWS
HAVE BECOME MEMBERS OF THE
NATIONAL ACADEMY OF SCIENCES

$37,000
ANNUAL STIPEND

$12,000
COST OF EDUCATION ALLOWANCE

5-YEAR FELLOWSHIP PERIOD

3 YEARS FINANCIAL SUPPORT

NO POST-GRADUATE STUDY SERVICE REQUIREMENT

~Per Competition
12,000+ APPLICANTS
2,000+ OFFERS

ACADEMIC INSTITUTIONS REPRESENTED
500+
~Per Competition

Submit Early

OPEN TO:
Individuals Pursuing
RESEARCH-BASED
MASTER'S &
DOCTORAL
DEGREES In Eligible
Fields of Study

nsfgrfp.org
DECISION TREE
FORMAT COMPLIANCE CHECK

ELIGIBLE MAJOR FIELDS OF STUDY

CHEMISTRY

COMPUTER AND INFORMATION SCIENCES & ENGINEERING

ENGINEERING

GEOSCIENCES

LIFE SCIENCES

MATERIALS RESEARCH

MATHEMATICAL SCIENCES

PHYSICS & ASTRONOMY

PSYCHOLOGY

SOCIAL SCIENCES

STEM EDUCATION & LEARNING RESEARCH

MAJOR FIELDS HAVE SUB-FIELDS

DGE | DIVISION OF GRADUATE EDUCATION

Graduate Research Fellowship Program (GRFP)

DESCRIPTION

National Science Foundation
Directorate for STEM Education (EDU)

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NSF Graduate Research Fellowships

Five Year Awards – $147,000*

Three years of financial support

- $37,000 stipend each year to the graduate institution
- $12,000 educational allowance directly to graduate institution
- In lieu of tuition (paid by institution) and fees

Other NSF Opportunities

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

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*Amounts are based on GRFP Solicitation NSF 22-614

- **Fellowship:** Awarded to individual, paid through the attended graduate institution
- **Flexible:** Choice of project, advisor, and graduate program
- **Unrestricted:** No service requirement after completion
- **Portable:** Can be used at any accredited, non-profit, US institution of higher education, with campus in US research-based master's and doctoral degrees

2010 - 2021: ~2,000 Fellowships yearly

2021: ~12,600 Applications - ~17% success rate

2020: ~12,800 Applications - ~16% success rate

2019: ~12,200 Applications - ~16% success rate

2018: ~12,400 Applications - ~16% success rate

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The overall goal of the Graduate Research Fellowship Program is to recruit individuals into Science, Technology, Engineering, and Mathematics (STEM) fields

- To select, recognize, and financially support individuals who have <u>demonstrated the potential</u> to be high achieving scientists and engineers, <u>early in their careers</u>

- To <u>broaden participation</u> in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, and veterans

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Graduate Research Fellowship Program (GRFP)

ELIGIBILITY

NSF National Science Foundation
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GRFP Eligibility – NSF Solicitation 22-614

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- U.S. citizens, nationals, and permanent residents
- Early-career: undergrad & graduate students
- Pursuing research-based master's and/or doctoral degrees (no professional degrees)
- Science, Technology, Engineering, Mathematics (STEM) or STEM Education
- Full-time enrollment in graduate degree program at accredited, non-profit US institution of higher education
- NO foreign institutions

Level 1: Seniors/bachelor's degree: no graduate study

Level 2: 1st-year graduate students
- Joint bachelor's-master's (completed 3 years)

Level 3: Second-year graduate students
- No more than 1 academic year completed in 1st graduate degree program
- For joint BS/MS holders ONLY, can apply as 1st year doctoral students if went directly into PhD program, after completing joint bachelor's-master's degree)

Level 4: Returning graduate students
- > 2-year interruption in graduate study
- No doctorates or >1 academic year in graduate program
- NOT ENROLLED in graduate program at application deadline

Only apply once

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GRFP Application

Complete Application Package:

1) Personal Information, Education, Work/Research Experience, Proposed Major Field of Study, Honors, Awards, Publications

2) Personal, Relevant Background and Future Goals Statement (3-page PDF)

3) Graduate Research Statement (2-page PDF)

4) Transcripts (PDFs; mandatory)

5) Letters of reference (may provide up to five names of reference letter writers)

- <u>3 reference letter writer names are mandatory</u> and 2 reference letters are mandatory for application review

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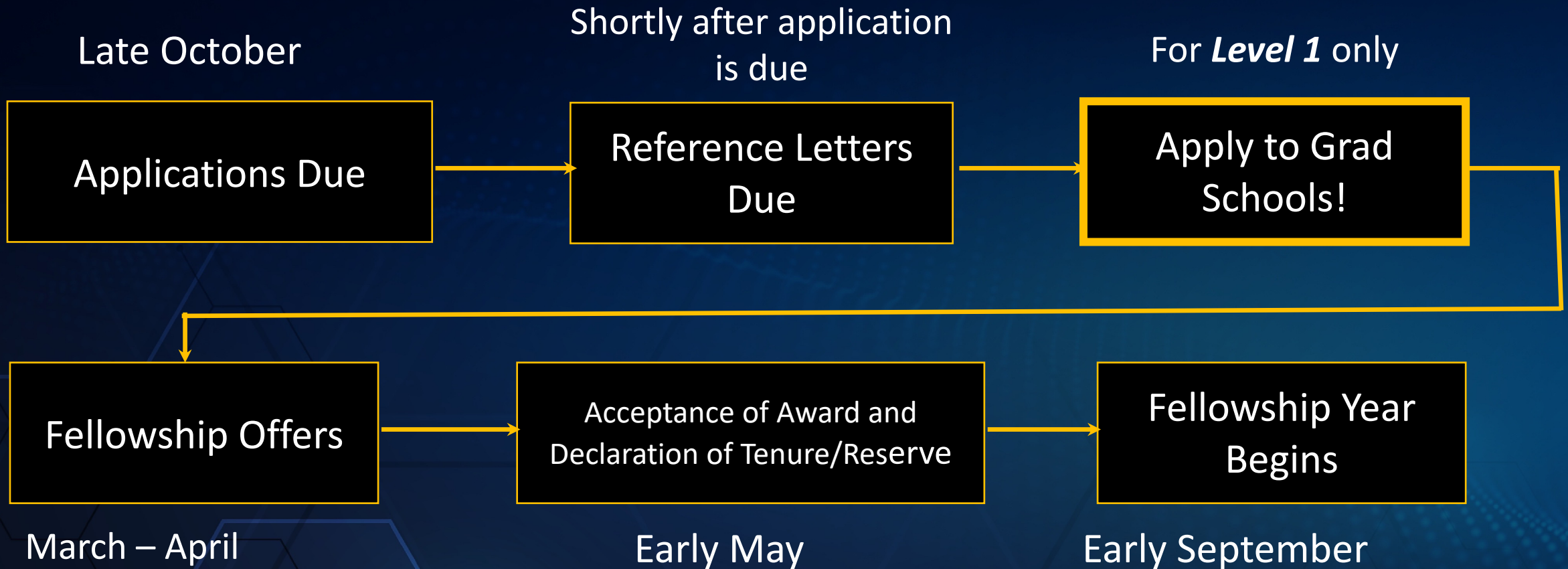DEADLINES (5 p.m. local applicant mailing address):

- Oct. --, 2023: Life Sciences
- Oct. --, 2023: CISE, Materials Research, Psychology, Social Sciences, STEM Education and Learning
- Oct. --, 2023: Engineering
- Oct. --, 2023: Chemistry, Geosciences, Math, Physics & Astronomy

Read the GRFP Solicitation for detailed application instructions and requirements

If accessibility accommodations are required, please contact info@nsfgrfp.org at least four weeks before the application deadline

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Tell your story; demonstrate your potential for STEM research

Experiences (professional and personal) that contributed to your motivation and preparation for pursuing a STEM career

Career aspirations and future goals

How have your experiences shaped your goals?

Research, industrial, professional experience

- What was the project, what was your role?
- How did you become involved? Where was it done?
- Why was this project worth doing? What have you learned? Any advanced course work?
- What was your contribution to the project and how did it fit into the whole?

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Describe your proposed research plan:

- Communicate your research idea and approach

- Explain your research plan and methods

- What do you expect to learn? How will you know if the project is successful?

- What would you do next?

Keep in mind:
- Avoid jargon
- Communicate clearly for non-specialists
- Make your contributions clear

Clearly address NSF's Merit Review Criteria – Intellectual Merit and Broader Impacts – under separate headings

Reference Letters and Transcripts

Reference Letters – Before the Deadline

MANDATORY for Application Review

- 3 names must be listed as part of the application
- 2 reference letters must be received by NSF

STRONGLY RECOMMENDED

- Up to 5 names of potential references can be listed
- 3 reference letters received by NSF

Applicants list and rank up to 5 reference letter writers
- Top 3 will be seen by reviewers

Transcripts – Required

- All applicants **must** submit bachelor's degree transcript
- Transcripts are **required** for all degree-programs
- Transcripts **required** for all graduate degree enrollment
- Official or unofficial transcripts accepted

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Intellectual Merit

- How important is the proposed activity to advancing knowledge within its own field or across different fields?

Broader Impacts

- How well does the proposed activity benefit society or advance desired societal outcomes?

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Applicants are reviewed based on:

- Their <u>demonstrated potential</u> for significant achievement in STEM
- Using a <u>comprehensive, holistic</u> approach
- A <u>balanced consideration</u> to all components of the application
  - Including the educational and research record, leadership, outreach, service activities, plans for the future, individual competencies, experiences, and other attributes

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Intellectual Merit

Potential to advance knowledge

Evidence of potential, such as ability to:

- Demonstrated intellectual ability (grades, curricula, awards, publications, presentations, etc.)

- Plan and conduct research

- Work as a member of a team as well as independently

- Interpret and communicate research

- Take initiative, solve problems, persist

- The potential of your approach to your major field of study and your Research Plan to advance knowledge

Evidence of Intellectual Merit can be found in all parts of the application: Personal Statement, Research Plan, letters, experiences, awards, achievements, and transcripts

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Broader Impacts

Potential impact of the individual and/or the research on society; why it's important

Societal benefits may include, but are not limited to:
- Increasing participation of underrepresented groups, women, persons with disabilities, veterans
- Outreach: Mentoring; improving STEM education in schools
- Increasing public scientific literacy; increased public engagement with STEM
- Community outreach: science clubs, radio, TV, newspapers, blogs
- Increasing collaboration between academia, industry, others

Evidence of Broader Impacts can be in all parts of the application: Personal Statement, Research Plan, letters, experiences, awards, achievements

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Thank you

nsfgrfp.org/reviewers

**Graduate Research Fellowship Program
(GRFP)**

Program Contacts

GRFP Reference Writers: nsfgrfp.org/reference_writers

GRFP Reviewers: nsfgrfp.org/reviewers/

info@nsfgrfp.org

www.nsf.gov/grfp & www.nsfgrfp.org

866-NSF-GRFP, 866-673-4737 (toll-free from the US & Canada)

202-331-3542 (international)