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A S S O C I A T E S LLC

**FEDERAL PROGRAMS AND
FELLOWSHIPS THAT PROVIDE
SUPPORT FOR GRADUATE
STUDENTS**

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Overview

This report contains a list of federal government research scholarship, fellowship, and internship programs that provide support for graduate students.

The federal government programs listed below are organized by the agency that runs the program. Within each agency, the programs are organized by the applying entity, e.g. whether the award is given to the institution or to individuals. For each opportunity, there is provided a program summary, eligibility requirements, size of the program, approximate size and type of award, citizenship requirements, annual due dates, and other special factors. The program websites are provided as a source for more detailed information.

Department of Commerce

National Oceanic and Atmospheric Administration

The mission of National Oceanic and Atmospheric Administration (NOAA), a bureau of the Department of Commerce (DOC), is to understand and predict changes in Earth's environment and to conserve and manage coastal and marine resources. NOAA is organized according to line offices, including the National Weather Service, the National Ocean Service, and Office of Oceanic and Atmospheric Research, among others. The Office of Oceanic and Atmospheric Research, which is where the majority of NOAA's extramural research funding is maintained, is organized into three general research topic areas: Climate Research; Weather and Air Quality Research; and Ocean, Coastal and Great Lakes Research. The majority of NOAA research fellowship opportunities are in the ocean research area. In addition to the opportunities below, NOAA has several programs that provide opportunities to work at NOAA sites. A complete list of graduate opportunities can be found at <http://www.noaa.gov/audience/graduate>.

Individual Awards

Dr. Nancy Foster Scholarship Program

- Overview: This program provides support for independent graduate-level research in oceanography, marine biology, or maritime archaeology. Women and members of minority groups are particularly encouraged to apply.
- Eligibility: Those eligible to apply are currently pursuing or intending to pursue a full-time master's or doctoral level degree in oceanography, maritime archaeology, or marine biology, including all science, engineering and resource management of ocean and coastal areas. A 3.3 grade point average is required.
- Citizenship: Applicants must be U.S. citizens or permanent residents.
- Award/Program Size: Scholarships carry a 12-month stipend for each student of \$30,000, an annual cost-of-education allowance of up to \$12,000, as well as \$10,000 to cover the costs of a four- to six-week research collaboration at a NOAA facility. Master's students may be supported for up to two years (at a maximum of \$98,000) and doctoral students for up to four years (at a maximum of \$196,000). NOAA awards three to four scholarships each year.
- Due Date: Applications for the 2017 scholarship will be open in October 2016 and will close in December. Exact dates are not yet available.

Source: <http://fosterscholars.noaa.gov/aboutscholarship.html>, accessed August 24, 2016.

Sea Grant/NOAA Fisheries Graduate Fellowship Program

- Overview: Supported by NOAA's Fisheries Service and the National Sea Grant Office, this fellowship targets doctoral students studying either marine population dynamics or marine resource economics.
- Eligibility: Applicants must be enrolled as a Ph.D. student in a U.S. university or college to apply.
- Citizenship: Only U.S. citizens are eligible to apply.
- Award/Program Size: Student awards totaling \$46,000 per year per student are provided through a cooperative agreement with state Sea Grant Programs. Funds may be used toward living expenses, tuition, and travel necessary to carry out the research.
- Due Date: Applications are typically due in January but specific dates for 2017 have not yet been announced.

Source: <http://seagrant.noaa.gov/FundingFellowships/NMFSSGFellowship.aspx>, accessed August 24, 2016.

National Institute of Standards and Technology

The National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce (DOC), promotes U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology. NIST is organized into five laboratories: Material Measurement, Physical Measurement, Engineering, Communications Technology, and Information Technology. It also has a Center for Neutron Research and a Center for Nanoscale Science and Technology.

Individual Awards

Graduate Student Measurement Science and Engineering Fellowship Program

- Overview: This fellowship program provides financial assistance for doctoral students in disciplines related to NIST measurement science and engineering research. Specific fields vary by year, but in general include chemistry, computer science, electrical engineering, materials science, mathematics, mechanical engineering, and physics. Fellows complete two summer internships at NIST laboratories. The program is run in conjunction with the National Physical Science Consortium (NPSC, <http://www.npsc.org/>).
- Eligibility: Graduate students must be pursuing a degree from an NPSC-member university and in a field important to NIST, such as chemistry, computer science, electrical engineering, materials science, mathematics, mechanical engineering, or physics. Applicants historically under-represented in STEM, either minority, female, or both are encouraged to apply. (<http://www.npsc.org/Universities/universities.html>).
- Citizenship: Fellows must be U.S. citizens.
- Award/Program Size: Fellows receive a \$20,000 stipend per year and tuition waiver, and may be funded for up to six years.
- Due Date: The application process opened in August and closes December 9, 2016.

Source: <http://www.nist.gov/iaao/gmse.cfm>, accessed August 24, 2016.

Department of Defense

The Department of Defense (DOD) funds research that is relevant to its mission, predominately drawing from engineering, computer/information science, and physical sciences. However, DOD also provides some limited research and education opportunities in foreign languages, social sciences, and medical and life sciences.

Individual Awards

National Defense Science and Engineering Graduate Fellowship (NDSEG)

- **Overview:** This program is a competitive, portable fellowship that is awarded to students who intend to pursue graduate study in one of the 15 supported disciplines: Aeronautical and Astronautical Engineering; Biosciences; Chemical Engineering; Chemistry; Civil Engineering; Cognitive, Neural, and Behavioral Sciences; Computer and Computational Sciences; Electrical Engineering; Geosciences; Materials Science and Engineering; Mathematics; Mechanical Engineering; Naval Architecture and Ocean Engineering; Oceanography; and Physics.
- **Eligibility:** Applicants should be either enrolled in their last year of college or first two years of graduate study at the time of application. You must intend to pursue a doctoral degree in order to be eligible for NDSEG Fellowship support.
- **Citizenship:** Applicants must be U.S. citizens or nationals.
- **Award/Program Size:** The DOD has awarded approximately 180 new fellowships each year. NDSEG Fellowships last for three years and pay for full tuition and all mandatory fees, a monthly stipend, and up to \$1,000 a year in medical insurance. All Fellows will receive a total of \$102,000.00 in stipend funds over the course of their 36-month program tenure. Stipends are prorated monthly based on a 12-month academic year.
- **Due Date:** Applications will open in September 2016, exact deadlines are not yet known.

Source: <http://ndseg.asee.org/>, accessed August 24, 2016.

Science Mathematics and Research for Transformation (SMART) Scholarship for Service Program

- **Overview:** This program allows students pursuing an undergraduate or graduate degree in science, technology, engineering, and mathematics (STEM) disciplines to receive a full scholarship in exchange for serving at internships at DOD facilities and working for DOD after graduation. Students pursuing degrees related to the following are encouraged to apply: Aeronautical and Astronautical Engineering; Biosciences; Chemical Engineering; Chemistry; Civil Engineering; Cognitive, Neural, and Behavioral Sciences; Computer and Computational Sciences; Electrical Engineering; Geosciences; Industrial and Systems Engineering; Information Sciences; Materials Science and Engineering; Mathematics; Mechanical Engineering; Naval Architecture and Ocean Engineering; Nuclear Engineering; Oceanography; Operations Research; and, Physics.
- **Eligibility:** Applicants must 18 years or older by August 1, 2017. Applicants must also be enrolled in an undergraduate or graduate program at an approved US academic institution or have acceptance for entrance for the fall 2017 semester.
- **Citizenship:** Applicants must be citizens of the US, Australia, Canada, New Zealand, or the United Kingdom.
- **Award/Program Size:** Participants receive full tuition and education related fees; cash award paid at a rate of \$25,000 to \$38,000 depending on degree being pursued; paid summer internships; health insurance reimbursement allowance up to \$1,200 per calendar year; supplies allowance of \$1,000 per academic year; mentoring; and employment placement after graduation. SMART awards may range from one academic term to five academic years.

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- Due Date: Applications are due December 1, 2016.
- Special Attention: Participants must be able to participate in summer internships at DOD laboratories and willing to accept post-graduate employment with the DOD. Participants must also have a minimum cumulative GPA of 3.0 on a 4.0 scale.

Source: <http://smart.asee.org/>, accessed August 24, 2016.

David L. Boren Graduate Fellowship

- Overview: This program supports the study of under-represented languages and areas critical to U.S. national security. The Fellowship provides support for overseas study and a domestic language study supplement. This program requires recipients to work for the federal government in national security for at least a year following graduation.
- Eligibility: Students must be enrolled in a graduate program at a U.S. academic institution. All applicants must demonstrate how their study programs are connected to achieving a better understanding of national security and must be planning an overseas program in a country outside of Western Europe, Canada, Australia, or New Zealand.
- Citizenship: Applicants must be U.S. citizens.
- Award/Program Size: The Boren Fellowship provides 12 weeks minimum and one year maximum (maximum one year overseas) of support. The program provides up to \$24,000 for overseas study as well as limited funding for supplemental domestic language study, for a total of \$30,000 for combined overseas/domestic study. Programs can begin no earlier than June 1, 2017 and no later than March 1, 2018.
- Due Date: The application for the 2017 Boren Fellowship is due January 31, 2017.

Source: http://borenawards.org/boren_fellowship/basics.html, accessed August 24, 2016.

National Physical Science Consortium (NPSC) – National Security Agency Sponsorship

- Overview: This program is a vehicle by which the National Security Agency (NSA) supports students pursuing doctoral degrees in mathematics, engineering, computer science, and physics. In addition to stipend support, NSA provides technical mentoring and at least two summers of employment at NSA.
- Eligibility: Students must be enrolled in a graduate program at an NPSC member institutions. A complete list of participating institutions is available at <http://www.npsc.org/Universities/universities.html>.
- Citizenship: Applicants must be U.S. citizens.
- Award/Program Size: The fellowship may last up to six years and includes full tuition and required fees as well as an annual \$20,000 expense allowance. Students may additionally hold a research or teaching assistantship.
- Due Date: Applications are due December 9, 2016.

Source: <https://www.intelligencecareers.gov/icstudents.html?Agency=NSA> and <http://www.npsc.org/>, accessed September 16, 2016.

Department of Education

The Department of Education offers a number of discretionary grants in the areas of the enhancement of education policy, educational environments, and educator capabilities. Most of the graduate fellowship support programs are run by the Office of Post-Secondary Education, which is responsible for developing and implementing post-secondary education policy while simultaneously increasing quality and access.

Institution Awards

Graduate Assistance in Areas of National Need (GAANN)

- **Overview:** This program provides fellowships, through university academic departments and programs, to assist graduate students with excellent records who demonstrate financial need and plan to pursue the highest degree available in their course study at the institution. Grants are awarded to programs and institutions to sustain and enhance the capacity for teaching and research in the following areas of national need: area studies, biological sciences/life sciences, chemistry, computer and information sciences, engineering, foreign languages and literature, mathematics, nursing, physics, education evaluation/research/statistics.
- **Eligibility:** Students are not eligible to apply for this grant. Academic departments and programs of institutions of higher education that provide courses of study leading to a graduate degree may apply. Fellows must be enrolled as graduate students, have financial need, and be planning a career in teaching or research. The academic program must have been in existence for at least four years.
- **Citizenship:** Fellows must be citizens, nationals, or permanent residents of the U.S.
- **Award/Program Size:** The program made 95 new awards in FY 2015 averaging \$246,065 per award. The duration of a grant awarded under this part is a maximum of three annual budget periods during a three-year project period. The number of fellowships awarded per institution can range from three to ten.
- **Due Date:** The last competition was held in FY 2015 and the next competition is anticipated in FY 2018.
- **Special Attention:** An institution must provide an institutional matching contribution equal to at least 25 percent.

Source: <http://www2.ed.gov/programs/gaann/index.html>, accessed August 24, 2016.

Fulbright-Hays Doctoral Dissertation Research Abroad

- **Overview:** This program provides grants to colleges and universities to fund individual doctoral students who conduct research in other countries, in modern foreign languages and area studies for periods of six to 12 months.
- **Eligibility:** Institutions of higher education are eligible to apply. Graduate students in doctoral programs in the fields of non-Western European foreign languages and area studies must apply through the institutions in which they are enrolled. Eligible students must be planning a teaching career in the U.S. upon graduation.
- **Citizenship:** Students are eligible to receive a fellowship if they are citizens, nationals, or permanent residents of the U.S.
- **Award/Program Size:** In FY 2016, an estimated \$3 million was appropriated for the program to cover approximately 90 new fellowships with an average size of \$33,461. Expenses covered by the award include: travel expenses, including excess baggage to and from the residence of the fellow to the host country of research; maintenance and dependents allowances based on the cost of living in country of research for the fellow and his or her dependent(s); project allowance for research related expenses such

as books, copying, tuition and affiliation fees, local travel and other incidental expenses; health and accident insurance premiums; and \$100 administrative fee to the applicant institution.

- Due Date: The most recent application deadline was May 6, 2016. Dates for the 2017 competition have not yet been announced.

Source: <http://www2.ed.gov/programs/iegpsddrap/index.html>, accessed August 24, 2016.

Foreign Language and Area Studies (FLAS) Fellowships Program

- Overview: This program provides academic year and summer fellowships to institutions of higher education to assist meritorious undergraduate students and graduate students undergoing training in modern foreign languages and related area or international studies.
- Eligibility: Institutions of higher education are eligible to apply. Institutions conduct competitions to select eligible undergraduate students and graduate students to receive fellowships.
- Citizenship: Students are eligible for fellowships if they are citizens, nationals, or permanent residents of the U.S.
- Award/Program Size: FLAS grants are awarded to institutions for a four-year project period. In FY 2014, the Department of Education funded 108 new awards at an average of \$281,468 per year. Fellowships include an institutional payment and a stipend for the fellow. For graduate students, the average year round graduate fellowship was \$33,000 and average summer fellowship was \$7,500.
- Due Date: This program operates on a four-year grant cycle. The next competition is in FY 2018.

Source: <http://www2.ed.gov/programs/iegpsflasf/index.html>, accessed August 24, 2016.

Department of Energy

The Department of Energy (DOE) funds research that is relevant to its mission of advancing the national, economic, and energy security of the U.S. DOE supports research in a broad range of basic and applied sciences. It is the principal federal funding agency of research programs in high-energy physics, nuclear physics, and fusion energy sciences. It also manages fundamental research programs in basic energy sciences, biological and environmental sciences, and computational science and is the federal government's largest single provider of funds for materials and chemical sciences. Other research areas include climate change, geophysics, genomics, life sciences, nanotechnology, fossil energy, and nuclear medicine.

Individual Awards

Graduate Student Research (SCGSR) Program

- **Overview:** This program provides supplemental awards to outstanding U.S. graduate students to pursue part of their graduate thesis research at a DOE laboratory in areas that address scientific challenges central to the DOE Office of Science mission. The research opportunity is expected to advance the graduate students' overall doctoral thesis while providing access to the expertise, resources, and capabilities available at the DOE laboratories. The program is geared towards students pursuing a Ph.D. in physics, chemistry, material sciences, biology (non-medical), mathematics, engineering, computer or computational sciences, or select areas of environmental sciences.
- **Eligibility:** Applicants must be studying at an accredited college or university in the United States or its territories. At the time of application, applicants must have obtained Ph.D. candidacy at their home institution, and must have established a defined graduate thesis project and graduate thesis advisor. Applicants must demonstrate that their graduate thesis is in an area of fundamental research aligned with the DOE Office of Science Priority Research Areas identified in the SCGSR solicitation.
- **Citizenship:** Applicants must be U.S. citizens or permanent residents and be at least 18 years of age at the time of applying.
- **Award/Program Size:** The award period for the proposed research project at DOE laboratories may range from three months to one year. The SCGSR program provides supplemental awards to support part of a graduate student's thesis research to be conducted at a DOE laboratory. Supplemental awards are intended to cover incremental costs associated with living and travel expenses during the award period. Awardees are eligible to receive a monthly stipend in the amount of up to \$3,000 for general living expenses while at the host DOE laboratory during the award period and up to \$2,000 in travel support if the host DOE national laboratory is greater than 50 miles from their university/resident location.
- **Due Date:** Applications are due November 21, 2016 for the second 2016 competition and in May 2017 for the first 2017 competition (exact dates have not yet been announced).

Source: <http://science.energy.gov/wdts/scgsr/>, accessed August 24, 2016.

Computational Science Graduate Fellowship (CSGF) Program

- **Overview:** This program provides opportunities to students pursuing a Ph.D. in scientific or engineering disciplines with an emphasis in high-performance computing. CSGF trains scientists to meet the nation's workforce needs and helps to create a nationwide interdisciplinary community. Fellows complete a 12-week practicum at a DOE national laboratory and follow a program of study that combines courses in a scientific or engineering discipline with courses in computer science and applied mathematics.
- **Eligibility:** College seniors or first year graduate students in the physical, engineering, computer, mathematical, or life sciences without an M.S. degree are eligible to apply.
- **Citizenship:** Applicants must be either US citizens or permanent residents.

- Award/Program Size: Support of this fellowship is limited to four years and must be renewed each year. The fellowship provides full tuition and required fees, a yearly stipend of \$36,000, and \$5,000 academic allowance in the first year of the fellowship and \$1,000 each renewed year thereafter.
- Due Date: Applications for the 2017-18 fellowship are due January 18, 2017.

Source: <http://www.krellinst.org/csgf/>, accessed August 24, 2016.

Mickey Leland Energy Fellowship Program (MLEF)

- Overview: The mission of the MLEF program is to provide opportunities for under-represented students in the STEM fields with opportunities to gain hands-on research experience with the Department of Energy's (DOE) Office of Fossil Energy (FE). Selected candidates will train under the mentorship of program officials and scientists on focused research projects consistent with the mission of the Office of Fossil Energy. At the conclusion of the program, Fellows attend a "Technical Forum" where they will present their research findings and tour a nearby technical site. The program lasts 10 weeks.
- Eligibility: Applicants must be at least 18, and be currently enrolled full-time STEM program at the Bachelor's (at least sophomore), Master's, or Doctoral level. Applicants must also have a cumulative GPA of at least 3.0. While the program aims to increase opportunities for under-represented students, all eligible students are encouraged to apply.
- Citizenship: Applicants must be U.S. citizens.
- Award Size: Current Master's students receive a weekly stipend of \$750; Current Ph.D. students receive a weekly stipend of \$850.
- Due Date: The application deadline is December 30, 2016.

Source: <http://www.fossil.energy.gov/education/lelandfellowships/index.html>, accessed August 24, 2016.

Internships

DOE offers a variety of internship opportunities for students in DOE-related fields. More information on internship opportunities is available at <http://energy.gov/student-programs-and-internships>.

Department of Health and Human Services

National Institutes of Health

The primary function of the National Institutes of Health (NIH) is to support biomedical and health-related research. Included in this mission is research on the behavioral and social impacts of individuals and society as related to public health. Please refer to each program's corresponding link to see which of NIH's 27 Institutes and Centers (ICs), as well as which agencies within the Department of Health and Human Services (HHS), are collaborating on each program and to determine the areas of graduate study that are relevant. A complete list of all NIH training and fellowship programs with links to current opportunities is available at <https://researchtraining.nih.gov/>.

Institution Awards

Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)

- Overview: The purpose of this program is to provide predoctoral and postdoctoral research training opportunities for individuals interested in pursuing research careers in biomedical, behavioral, and clinical research. Training activities can be in "basic biomedical or clinical sciences, in behavioral or social sciences, in health services research, or in any other discipline relevant to the NIH mission."
- Eligibility: Only domestic, non-profit, private or public institutions may apply for grants to support NRSA institutional research training programs. The applicant institution must have a strong and high quality research program in the area(s) proposed for research training and must have the requisite staff and facilities on site to conduct the proposed research training program. The training principal investigator (PI) should be an established basic, behavioral, and/or clinical researcher.
- Citizenship: The individuals to be trained must be citizens, nationals, or residents of the U.S.
- Award/Program Size: Awards may be made for periods up to five years and are renewable. The number of awards is contingent upon NIH appropriations, and the submission of a sufficient number of meritorious applications. NIH will contribute to the combined cost of tuition and fees at the rate in place at the time of award. Stipends are also provided as a subsistence allowance for trainees to help defray living expenses during the research training experience and are based on a 12-month appointment period.
- Due Date: Applications are due in three annual cycles: January 25, May 25, and September 25. Please note, applicants should check with the relevant IC since some do not accept T series applications for all three cycles.
- In 2014, NIH released a separate T32 funding opportunity announcement for Predoctoral Training in Biomedical Big Data Science (<http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-004.html>) as well as T32 Revisions to Add Biomedical Big Data Training to Active Institutional Training Grants (<http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-14-005.html>)

Source: <http://grants.nih.gov/grants/guide/pa-files/PA-16-152.html>, accessed August 24, 2016.

Ruth L. Kirschstein National Research Service Award (NRSA) Short-Term Institutional Research Training Grant (Parent T35)

- Overview: The objective of this program is to develop or enhance research training opportunities for individuals interested in careers in biomedical, behavioral, and clinical research. The program provides short-term support for a period of at least eight, but no more than 12, weeks in a grant year for full-time training experiences under the supervision of experienced researchers. Many of the NIH ICs use this grant

Prepared by Lewis-Burke Associates, September 2016

mechanism exclusively to support intensive, short-term research training experiences for students in health professional schools during the summer. The program may also be used to support other types of predoctoral and postdoctoral training in focused, often emerging scientific areas relevant to the mission of the NIH funding ICs.

- Eligibility: Only domestic, non-profit, private or public institutions may apply for grants to support NRSA institutional research training programs. The applicant institution must have a strong, high quality research program in the area(s) proposed for research training and must have the requisite staff and facilities on site to conduct the proposed research training program. The training PI should be an established basic, behavioral, and/or clinical researcher.
- Citizenship: The individuals to be trained must be citizens, nationals, or residents of the U.S.
- Award/Program Size: The number of awards is dependent on NIH appropriations and the number of meritorious applications received.
- Due Date: Applications are due in three annual cycles: January 25, May 25, and September 25. Please note, applicants should check with the relevant IC since some do not accept T series applications for all three cycles.

Source: <http://grants.nih.gov/grants/guide/pa-files/PA-16-151.html>, accessed August 24, 2016.

Individual Awards

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)

- Overview: The purpose of this individual predoctoral research training fellowship is to provide support for promising doctoral candidates who will be performing dissertation research in scientific health-related fields relevant to the missions of the participating NIH Institutes and Centers (ICs).
- Eligibility: The applicant must be at the dissertation research stage of their training and must show evidence of both high academic performance in the sciences and a “commitment to a career as an independent research scientist.” Before submitting a fellowship application, the applicant must also identify a sponsoring institution. The sponsoring institution must have appropriate staff and facilities available on site to provide a suitable environment for performing high-quality research training and be demonstrably committed to research training in the particular program proposed by the applicant.
- Citizenship: Applicants must be citizens, nationals, or residents of the U.S.
- Award/Program Size: Individuals may receive “up to 5 years of aggregate Kirschstein-NRSA support at the predoctoral level including any combination of support from institutional training grants...and an individual fellowship award.”
- Due Date: Applications are due in three annual cycles: April 8, August 8, and December 8.

Source: <http://grants.nih.gov/grants/guide/pa-files/PA-16-309.html>, accessed August 24, 2016.

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31 - Diversity)

- Overview: The purpose of this fellowship is to improve the diversity of the health-related research workforce by supporting the training of predoctoral students from groups that have been shown to be underrepresented in the biomedical sciences. The award will provide support for promising doctoral candidates who will be performing dissertation research and training in scientific health-related fields relevant to the missions of the participating IC.
- Eligibility: For the purpose of this announcement, institutions are encouraged to identify fellowship applicants who will increase diversity on a national or institutional basis. NIH is particularly interested in

encouraging the recruitment and retention of the following classes of candidates: individuals from racial and ethnic groups that are underrepresented in health-related sciences, individuals with disabilities, and individuals from disadvantaged backgrounds.

- Citizenship: Applicants must be citizens, nationals, or residents of the U.S.
- Award/Program Size: The size and duration of awards vary. Individuals may receive “up to 5 years of aggregate Kirschstein-NRSA support at the predoctoral level including any combination of support from institutional training grants...and an individual fellowship award.”
- Due Date: Applications are due in three annual cycles: April 13, August 13, and December 13.

Source: <http://grants.nih.gov/grants/guide/pa-files/PA-16-308.html>, accessed August 24, 2016.

Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral MD/PhD and Other Dual-Doctoral Degree Fellowship (Parent F30)

- Overview: The purpose of this award is to provide support to individuals for combined MD/PhD and other dual-doctoral degree training. This funding opportunity supports individual predoctoral F30 fellowships with the expectation that these training opportunities will increase the number of future investigators with both clinical knowledge and skills in basic, translational, or clinical research.
- Eligibility: The participating NIH ICs award this fellowship to qualified applicants with the potential to become productive, independent, highly trained physician-scientists and other clinician-scientists, including patient-oriented researchers in their scientific mission areas. An applicant must have a baccalaureate degree and show evidence of both high academic performance in the sciences and commitment to a career as an independent scientist.
- Citizenship: Applicants must be citizens, nationals, or residents of the U.S.
- Award/Program Size: The size and duration of awards vary. The total amount awarded and the number of awards will depend upon NIH appropriations and the number of meritorious applications.
- Due Date: Applications are due in three annual cycles: April 8, August 8, and December 8.

Source: <http://grants.nih.gov/grants/guide/pa-files/PA-16-306.html>, accessed August 24, 2016.

Fulbright-Fogarty Fellows in Public Health

- Overview: NIH’s Fogarty International Center partners with the Fulbright Program in supporting medical or graduate student fellows to promote the expansion of public health research in resource-limited settings.
- Eligibility: Medical or graduate students may apply. Eligibility requirements vary by country, and each applicant can apply to only one country.
- Citizenship: Applicants must be U.S. citizens.
- Award/Program Size: The size and number of awards granted vary.
- Due Date: Fulbright-Fogarty Fellowships in Public Health is not accepting applications for the 2017-2018 academic year. Application deadline for the 2018-2019 academic year TBD.

Source: <http://www.fic.nih.gov/Programs/Pages/fulbright-fellowships.aspx>, accessed August 24, 2016.

Centers for Disease Control and Prevention

The mission of the CDC is to protect and improve public health through information that enhances health decision-making and partnerships with state health departments and other organizations. The CDC focuses on developing and applying disease prevention and control policies, especially in infectious diseases, environmental health, occupational safety and health, health promotion, prevention and education activities.

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Internships

CDC offers a variety of internship and fellowship opportunities and training and research grants, often administered through institutions, including colleges and universities for students in CDC-related fields. The training grants are designated for specific professions by category, and a list of current opportunities is available at https://www.cdc.gov/fellowships/full-time/masters.html#modalIdString_CDCTable_0. A sampling of internship opportunities for current students includes:

- ASANCHS Research Fellowship Program
<http://www.amstat.org/careers/pdfs/ASANCHSResearchFellowshipProgram.pdf>
- ASPPH/CDC Allan Rosenfield Global Health Fellowship Program
<https://fellowships.aspph.org/programs/details.cfm?programID=2>
- ASPPH/CDC Public Health Fellowship Program
<https://fellowships.aspph.org/programs/details.cfm?programID=10>
- Dr. James A. Ferguson Emerging Infectious Diseases Fellowship Program
<http://www.kennedykrieger.org/professional-training/professional-training-programs/rise-programs/ferguson-fellowship>

Agency for Healthcare Research and Quality

The Agency for Healthcare Research and Quality (AHRQ), within the Department of Health and Human Services (HHS), works to improve the quality, safety, efficiency, and effectiveness of healthcare. The research sponsored and conducted by AHRQ addresses issues of organization, delivery, financing, utilization, patient and provider behavior, outcomes, effectiveness, and cost. These scientific results improve the evidence base to enable better healthcare decisions in areas such as disease prevention, appropriate use of medical technologies, cost-effective diagnosis and treatment, long-term care, and the reduction of racial and ethnic disparities.

Individual Awards

Health Services Research Dissertation Program

- Overview: This program provides support to individuals who are conducting research undertaken as part of an academic program to qualify for a doctorate degree relating to healthcare quality. Research applications must address one of the following areas: (1) Safety/quality – Reduce the risk of harm from health care services by promoting the delivery of appropriate care that achieves the best quality outcomes; (2) Efficiency – Achieve wider access to effective health care services and reduce health care costs; (3) Effectiveness – Assure that providers and consumers/patients use beneficial and timely health care information to make informed decision choices.
- Eligibility: Eligible applicants must be enrolled in a doctoral program in social or behavioral sciences, health services research, social sciences, epidemiology, biostatistics, health policy, or health informatics. Applicants must have completed all non-dissertation requirements for their doctoral degree by the time of submission of the application.
- Citizenship: Applicants must be U.S. citizens, non-citizen nationals, or permanent residents.
- Award/Program Size: Total award size and number of awards depends on the number of applications that AHRQ receives. The total direct cost awarded must not exceed \$40,000 for the entire project period. Project periods must be a minimum of nine months but may not exceed 17 months.
- Due Date: Applications are due annually February 1, May 1, August 1, and November 1.

Source: <http://grants.nih.gov/grants/guide/pa-files/PA-15-318.html>, accessed September 15, 2016.

Health Resources and Services Administration

The Health Resources and Services Administration (HRSA), an agency of the Department of Health and Human Services (HHS), is the primary federal agency for improving access to health care services for people who are uninsured, isolated or medically vulnerable. The Bureau of Health Professions within HRSA increases access to health care by developing, distributing, and retaining a diverse, culturally competent health workforce.

HRSA offers a variety of health professions training grants, often administered through institutions, including colleges and universities. The training grants are designated for specific professions by category, a list of which is accessible here: <http://bhpr.hrsa.gov/grants/index.html>. Below are several examples of HRSA's multidisciplinary and broad eligibility grants to highlight the types of opportunities HRSA has funded in the past; it is important to note that most of the funding examples listed have expired.

Institution Awards

Bureau of Health Workforce (BHW) Scholarships for Disadvantaged Students

- **Overview:** This program promotes diversity among health professions students by providing scholarships for students from disadvantaged backgrounds. Health professions and nursing schools can apply for scholarship funding for students from disadvantaged backgrounds who are enrolled, or accepted for enrollment, as full-time students at the schools.
- **Eligibility:** Accredited schools that are recruiting students from disadvantaged backgrounds and training them in any of the following fields are eligible: allopathic medicine, osteopathic medicine, dentistry, veterinary medicine, optometry, podiatry, pharmacy, chiropractic, behavioral and mental health, public health, nursing, allied health, and physician assistant. Schools receive priority if they can demonstrate success in enrolling under-represented minorities, a high rate of primary care graduates, and/or a high rate of graduates working in underserved communities.
- **Citizenship:** Students receiving scholarships must be US citizens, nationals, or permanent residents.
- **Award/Program Size:** Awards can be used for partial or full scholarships at the institution's discretion, although full scholarships are encouraged. Participating schools are responsible for selecting scholarship recipients, making reasonable determinations of need, and providing scholarships that do not exceed the allowable costs (i.e., tuition, reasonable educational expenses and reasonable living expenses with a cap for the total scholarship award of \$30,000). In the most recent round of 2016, there were 79 awards, with approximate total funding for the program at \$43.7 million.
- **Due Date:** The most recent application deadline was January 25, 2016.

Source:

https://ersrs.hrsa.gov/ReportServer/Pages/ReportViewer.aspx?/HGDW_Reports/FindGrants/GRANT_FIND&ACTIVITY=T08&rs:Format=HTML4.0 and

<https://grants3.hrsa.gov/2010/Web2External/Interface/FundingCycle/ExternalView.aspx?fCycleID=81FC3CE3-057B-43FC-8A8B-A6BF8C49073E&txtAction=View+Details&submitAction=Go&ViewMode=EU>, accessed September 16, 2016.

Mental and Behavioral Health Education and Training Grant

- **Overview:** This program, first competed in 2012, aims to strengthen the clinical field competencies of social workers and psychologists who pursue clinical service with high need and high demand populations. In 2014, the program held a competition in partnership with the Substance Abuse and

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Mental Health Services Administration (SAMHSA) for “Behavioral Health Workforce Education and Training for Professionals.” The 2014 competition specifically focused on expanding the behavioral health workforce, “serving children, adolescents, and transitional-age youth at risk for developing or who have developed a recognized behavioral health disorder.” The shift in focus was aligned with the Obama Administration’s *Now is the Time* initiative. The program provides funding to support clinical internships and field placements.

- Eligibility: Eligible applicants are accredited schools and programs of social work, health services psychology, marriage and family therapy, psychiatric mental health nurse practitioner, professional counseling, clinical psychology, and counseling psychology.
- Award/Program Size: The estimated total amount for the FY 2014 competition was \$26.7 million. Individual awards are up to \$480,000 per year, and HRSA expects to make 60-130 awards.
- Due Date: The most recent competition for the Behavioral Health Workforce Education and Training program was in 2014. It is not clear whether future competitions will be held.

Source: <http://www.grants.gov/view-opportunity.html?oppld=253408> and <http://bhpr.hrsa.gov/grants/mentalbehavioral/mbhet.html>, accessed September 15, 2016.

Health Careers Opportunity Program (HCOP)

- Overview: The HCOP program provides students from disadvantaged backgrounds an opportunity to develop the skills needed to successfully compete, enter and graduate from health professions schools.
- Eligibility: Eligible applicants are accredited schools of medicine, osteopathic medicine, dentistry, nursing, pharmacy, podiatric medicine, optometry, veterinary medicine, public health, chiropractic, allied health, a school offering a graduate program in behavioral and mental health practice, or an entity providing programs for the training of physician assistants.
- Award/Program Size: In FY 2016 HRSA allocated \$14.19 million to HCOP for 30 awards.
- Due Date: The most recent solicitation closed on May 15, 2015. New funding opportunities for 2016 have not been announced.
- Special Attention: A funding preference was given to applications involving a comprehensive approach by several public or nonprofit private health or educational programs that will result in the development of a competitive applicant pool of individuals from disadvantaged backgrounds who desire to pursue health professions careers.

Source: <http://bhpr.hrsa.gov/grants/diversity/hcop.html> and https://ersrs.hrsa.gov/ReportServer/Pages/ReportViewer.aspx?/HGDW_Reports/FindGrants/GRANT_FIND&ACTIVITY=D18&rs:Format=HTML4.0, accessed September 15, 2016.

Substance Abuse and Mental Health Services Administration

The Substance Abuse and Mental Health Services Administration (SAMHSA), within the Department of Health and Human Services (HHS), is the implementation arm for social and behavioral intervention and prevention strategies in public health. While much of SAMHSA’s discretionary funds go to state and local governments or to support the health workforce, opportunities to implement SAMHSA initiatives for which nonprofit entities (such as universities) are eligible are occasionally offered.

Minority Fellowship Program

- Overview: The goal of this program is to increase the pool of professionals qualified to provide leadership, consultation, training, and administration to government, public and private organizations that develop and implement programs for under-served ethnic minority persons with mental and/or substance abuse disorders. This program provides grants to encourage and facilitate the doctoral and post-doctoral development of minority nurses, psychiatrists, psychologists, and social workers. The program is managed by five associations: American Nurses Association (ANA), American Psychiatric Association (APA), Council on Social Work Education (CSWE), American Psychological Association (ApA), NAADAC The Association for Addiction Professionals (AAP), and American Association for Marriage and Family Therapy (AAMFT). In order to receive an award, students must apply through one of the aforementioned associations. In FY 2016 SAMHSA allocated approximately \$8 million to the Minority Fellowship Program.
 - AAMFT—The program is open to all full-time doctoral students in marriage and family therapy doctoral programs that demonstrate a strong commitment to a career in ethnic minority mental health and substance abuse services and are providing substance abuse and mental health services to minority and underserved populations. African American, Alaskan Native, American Indian, Asian American, Hispanic/Latino, Native Hawaiian, and Pacific Islander students are especially encouraged to apply.
 - ANA — Applicants must be a member of an ethnic or racial minority group: Asian or Asian American, Black or African American, Hispanic, or Latino, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander. Applicants must be a registered nurse and have a master’s degree in psychiatric or mental health nursing or a related field and pursuing a doctoral degree in their field. Additionally, applicants must be an ANA member and able to demonstrate a commitment to a research career in nursing and substance abuse and/or psychiatric or mental health issues affecting minority populations. The fellowship guidelines recommend that all applicants should have completed one year of graduate studies prior to applying to the MFP.
 - ApA — Applicants must be psychiatry residents-in-training and remain in training during the entire academic year. Applicants must be ApA members. All applicants are welcome to apply regardless of race or ethnicity but must demonstrate their commitment to serve ethnic minority populations.
 - APA — Applicants must demonstrate a strong commitment to a career in ethnic minority mental health and substance abuse services. Applicants should be enrolled full-time in an APA-accredited doctoral program. African American, Alaskan Native, American Indian, Asian American, Hispanic/Latino, Native Hawaiian, and Pacific Islander students are especially encouraged to apply.
 - CSWE — Applicants must have a master’s degree in social work and be starting full-time study leading to a doctoral degree in social work or be currently enrolled as full-time students in a doctoral social work program. All applicants are welcome to apply regardless of race or ethnicity but must demonstrate a commitment to a career providing mental health and substance abuse services to ethnic, racial, social, and cultural minorities.
 - NBCC — This program is intended to support doctoral students in counseling from diverse backgrounds with the intention of producing a workforce committed to addressing issues in underserved populations such as mental health as well as substance abuse and addiction therapy. African Americans, Alaska Natives, American Indians, Asian Americans, Hispanics/Latinos, Native Hawaiians and Pacific Islanders are especially encouraged to apply.
- Citizenship: Applicants must be U.S. citizens or permanent residents.

- Award/Program Size:
 - AAMFT — Fellows receive \$20,000 per year for a maximum of three years and must be renewed annually.
 - ANA — Fellowships are renewed on an annual basis. The Fellowship is usually awarded for 10 to 12 months. A fellow who wishes to receive continual awards for the maximum five years must complete a progress report each year. Renewals are not automatic. The annual stipend amounts vary from year to year depending on federal allocations to the MFP.
 - ApA — Fellows receive monthly stipends and serve for one year with an opportunity to apply for an additional year. The annual stipend amounts vary from year to year depending on federal allocations to the MFP.
 - APA — Fellows receive financial support for a maximum of three year and must be renewed annually. There is limited availability for dissertation support.
 - CSWE — Fellows receive monthly stipends for a one year period to defray living expenses; some tuition support may be provided depending on the availability of funds. The duration of the award is three years contingent upon funding and the fellow maintaining satisfactory progress towards degree objectives.
 - NBCC — Fellows receive up to \$20,000 a year.
- Due Dates:
 - AAMFT — Applications are due in March annually.
 - ANA — Application are due March 1 annually.
 - ApA — Applications are due January 30 annually.
 - APA — Applications are due in January annually.
 - CSWE — Applications are due February or March annually.
 - NBCC — Applications are due November 15.

Source: <http://media.samhsa.gov/minorityfellowship/Default.aspx> and <http://store.samhsa.gov/shin/content//SMA11-4638/SMA11-4638.pdf> accessed September 15, 2016.

Department of Homeland Security

The Science and Technology (S&T) Directorate is the primary research and development arm of the Department of Homeland Security (DHS). The Directorate has three portfolios that address basic research through advanced technology development and transition - spanning four primary divisions that address critical homeland security needs: Borders and Maritime Security; Chemical and Biological Defense; Cyber Security; and Explosives.

Individual Awards

Nuclear Forensics Graduate Fellowship Program (NFGFP)

- **Overview:** This program is intended to support doctoral students pursuing a degree in nuclear, geochemical, and other nuclear forensics related disciplines. NFGFP aims to develop the next generation of nuclear forensic scientists to meet the needs of the U.S. Government, and create a viable student career path in nuclear forensics. The program is a 12-month appointment, which is renewable for up to a total of 5 years. Fellows participate in two 10-week hands-on laboratory practicums at an agency conducting research related to nuclear forensics, such as the Department of Defense or Department of Energy laboratories.
- **Eligibility:** Graduate students with undergraduate degrees in physical science, life science, or engineering are eligible to apply. They must be pursuing a specialty closely related to technical nuclear forensics, including but not limited to: radiochemistry, geochemistry, nuclear physics, nuclear engineering, materials science, and analytical chemistry. Students can apply as undergraduates if they will be entering graduate school by the start of the award period.
- **Citizenship:** Applicants must be U.S. citizens.
- **Award/Program Size:** The award includes tuition and a monthly stipend of \$2,400. While on a practicum assignment, fellows' monthly stipend increases by \$500 (prorated).
- **Due Date:** There is no call for applications for the 2016-2017 cycle. Applications were previously due in February.

Source: <http://www.scuref.org/nfgf-01/>, accessed August 24, 2016.

Department of State

The Department of State supports a limited number of international social science and exchange programs each year. Many of these grants focus on international public policy, governance, and/or human rights. A limited number of these programs are open to or targeted at graduate students. Further, recent budget constraints have driven a consolidation of programs and left the Fulbright Program as the primary option for graduate students seeking fellowship funding through the Department.

Individual Awards

Fulbright Grants for Graduate Study and Research Abroad (part of the Fulbright U.S. Student Program)

- **Overview:** This program is an international educational exchange program designed to increase mutual understanding between Americans and people in other countries. The program provides participants, chosen for their academic merit and leadership potential, with the opportunity to study, teach, conduct research, exchange ideas, and contribute to finding solutions to shared international concerns. Fulbright projects span every major discipline, and recipients carry out a wide variety of unique projects and activities while on their grant.
- **Eligibility:** The Fulbright U.S. Student Program offers fellowships for U.S. graduate students to study, conduct research, and/or teach English abroad. The Fulbright Foreign Student Program offers opportunities for foreign graduate students to study, conduct research, and/or teach their native language in the U.S.
- **Citizenship:** U.S. applicants (U.S. citizens) apply either through their university or college or at-large to the cooperating agency responsible for the program in which they are interested. Non-U.S. applicants (non-U.S. citizens) apply to either the Fulbright Commission in their country of citizenship or the U.S. Embassy in their country of citizenship (in countries where there is not a Fulbright Commission).
- **Award/Program Size:** The Fulbright Program awards approximately 8,000 new grants annually. In FY 2016, the congressional appropriation was \$236 million. Foreign governments and private organizations also contribute funding.
- **Due Date:** Applications are due October 11, 2016.

Source: <https://exchanges.state.gov/us/program/fulbright-us-student-program>, accessed August 26, 2016.

National Aeronautics and Space Administration

The National Aeronautics and Space Administration (NASA) conducts space exploration work in five principal categories: Science, Aeronautics, Space Technology, Exploration, and Operations. The Science Mission Directorate explores the Earth, Sun, planets, and the universe. The Aeronautics Research Mission Directorate designs and tests new flight technologies that bolster exploration and lead to improved flight capabilities on Earth. The Human Exploration and Operations Mission Directorate concentrates on the International Space Station and developing new methods for human exploration in space. The Space Technology Mission Directorate invests in potentially game-changing technology with applications across NASA mission directorates. In education, NASA activities include support for scientific training in fields relevant to NASA's mission as well as general outreach using space to inspire interest in technical issues and careers.

Individual Awards

NASA Space Technology Research Fellowships (NSTRF)

- **Overview:** The NASA Space Technology Research Fellowships (NSTRF) supports graduate student researchers who demonstrate significant potential to contribute to NASA's goal of creating innovative new space technologies for the Nation's scientific, exploration, and economic future. Selected candidates will have the opportunity to perform research at their resident campuses, NASA centers, and/or at nonprofit U.S. Research and Development (R&D) facilities.
- **Eligibility:** Students must be pursuing a master's or doctoral degree relevant to the field of space technology (only technical degrees will be selected, not those that are policy-focused). Entering Master's or Doctoral students, and Doctoral students already holding a Master's degree, must have completed one year or less toward earning the degree. Continuing Doctoral students must have completed less than three years of work toward the degree.
- **Citizenship:** Applicants must be U.S. citizens, nationals, or permanent residents.
- **Award/Program Size:** The 12-month award provides a maximum student stipend of \$36,000 in addition to allowances for health insurance, tuition and fees, on-site NASA center experience, and faculty advisers. The maximum annual amount of an award is \$74,000. Awards may be renewed for up to one year of additional support for Master's students, and up to three additional years for Doctoral students. 54 awards were made in 2014.
- **Due Dates:** Application for the 2017 solicitation are due November 3, 2016.

Source: <https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={A3488581-2E70-6AA1-76F0-E9A5A770A975}&path=open>, accessed September 15, 2016.

NASA Earth and Space Science Fellowship (NESSF) Program

- **Overview:** The purpose of the NESSF is to ensure the continued development of a highly qualified workforce capable of contributing to NASA's efforts to advance scientific understanding of the Earth, the Sun, the evolution of the solar system, and the conditions necessary to nurture life in the universe. Awards will consist of training grants to the respective universities with the advisor acting as principal investigator.
- **Eligibility:** Only students pursuing Master's or Doctoral degrees in Earth or space sciences, or related disciplines, will be considered. Students may apply at any point in their degree program. Students pursuing a Baccalaureate may also apply, provided that they are already enrolled in a Master's or Doctoral

degree program at the time of the award. An individual accepting this award may not simultaneously be receiving an award for any other Federal fellowship or traineeship.

- Citizenship: NESSF is open to all students enrolled at any U.S. university, though U.S. citizens or permanent U.S. residents will be given preference.
- Award/Program Size: The maximum amount for an NESSF award is \$30,000 per year, with \$24,000 covering the student stipend. An additional \$6,000 is available to defray costs of fees, travel, conferences, books, supplies, health insurance, and/or other allowances. NESSF awards are made initially for one year, but can be extended for up to two more years depending upon the level of progress.
- Due Dates: Proposals for the 2016 solicitation were due on February 2, 2015. No solicitation for 2017 has been released.

Source: <http://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={B6CDCEA6-8EDD-A48A-FAF8-E588F66661C3}&path=open>, accessed September 15, 2016.

National Space Grant College and Fellowship Program

- Overview: The National Space Grant College and Fellowship Program (Space Grant) is a national network of colleges and universities, which includes over 850 affiliates from universities, colleges, industry, museums, science centers, and state and local agencies. These affiliates belong to one of 52 consortia in all 50 states, the District of Columbia and the Commonwealth of Puerto Rico. Each of the 52 consortia funds fellowships and scholarships for students pursuing careers in STEM, as well as curriculum enhancement and faculty development. A goal of the program is to recruit and train U.S. citizens (especially women, underrepresented minorities, and persons with disabilities) for careers in aerospace science and technology. Consortia are required to provide a specific target percentage for participation of female and underrepresented minority students in fellowship and scholarship programs.
- Eligibility: Graduate students from a variety of STEM disciplines are eligible for fellowships which enable them either to initiate or to continue research in their own fields and complete their studies. Eligibility details vary from institution to institution.
- Citizenship: Applicants must be U.S. citizens.
- Award/Program Size: The size and duration of the fellowship awards vary at each institution.
- Due Dates: Due dates vary at each institution.

Sources: <http://www.nasa.gov/offices/education/programs/national/spacegrant/home/index.html>, accessed September 15, 2016.

NASA “One-Stop Shopping Initiative” (OSSI)

Internships and Fellowships

NASA offers a variety of fellowship, scholarship, and internship opportunities for students in high school through postdoctoral levels in NASA-related fields.

Information on currently available opportunities can be found at <https://intern.nasa.gov/ossi/web/public/guest/searchOpps/>. This site is searchable by discipline, time frame, education level, and NASA Center/Facility of interest.

National Science Foundation

The National Science Foundation (NSF) funds basic research in all areas of science and engineering. This includes research on social, behavioral, and economic sciences as well as science, technology, engineering, and mathematics (STEM) education.

Institution Awards

National Science Foundation Research Traineeship Program (NRT)

- **Overview:** This program replaces the longstanding Integrative Graduate Research Traineeships program (IGERT). The objective of NRT is to innovate interdisciplinary, transformative models for STEM graduate education in order to prepare the scientists and engineers of the future. NRT is intended to build on IGERT but additionally includes “training for multiple career pathways, rotating priority research themes, inclusion of both master’s and doctoral students, a broader definition of trainees, and greater budgetary and programmatic flexibility”. Unlike IGERT, the NRT program has specific research themes that will rotate every two to three years. Special topics for the FY 2017 competition are Understanding the Brain (UtB) and Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS). Proposals are also invited from other interdisciplinary themes as long as they connect to national research priorities and “have high potential for development of innovative practices in graduate education.” In addition to the Traineeship track that provides stipend money for graduate students, there is also an Innovations in Graduate Education Track that funds development and piloting of innovative graduate education approaches.
- **Eligibility:** Projects may involve more than one institution, but a single institution must accept overall management responsibility. The lead institution must independently grant Ph.D. degrees in at least one of the science, technology, engineering and mathematics (STEM) fields supported by NSF in order to be eligible.
- **Citizenship:** All stipend recipients must be U.S. citizens or permanent residents.
- **Award/Program Size:** Proposed budget can be up to \$3,000,000 total for up to five years. NSF anticipates making approximately 30 awards for the NRT program in FY 2017.
- **Due Date:** Letters of Intent are due December 9, 2016 and full proposals are due February 7, 2017.
- **Special Attention:** For the current competition there is a limit of two proposals per institution for the Traineeship Track and two for the Innovations in Graduate Education Track.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505015, accessed September 15, 2016.

CyberCorps (R): Scholarship for Service (SFS)

- **Overview:** This program seeks to increase the number of qualified students entering the field of cybersecurity and to increase the capacity of the U.S. higher education enterprise to continue to produce professionals in that field. The SFS program is composed of two tracks, The Scholarship Track and the Capacity Track. The *Scholarship Track* provides funding to colleges and universities to award scholarships to students in the cybersecurity field. The *Capacity Building Track* provides funds to colleges and universities to improve the quality and increase the production of cybersecurity professionals.
- **Eligibility:** For the Scholarship Track, the proposing organization must provide documented evidence that they have a strong existing cyber security program. This documentation can include accreditation as a National Security Agency or Department of Homeland Security Center of Academic Excellence in Information Assurance Education (CAE/IAE or CAE-R) or equivalent documentation of a strong cybersecurity program. Scholarship recipients must be full-time students within two years of graduation and in a formal program that is focused on computer security or information assurance at an awardee

institution, full-time students within three years of graduation with both the bachelor's and the master's degree, students participating in a combined bachelor's and master's degree ("five year") program, or research based doctoral students within three years of graduation. Scholarship recipients must also meet the selection criteria for Federal employment.

- Citizenship: Scholarship recipients must be U.S. citizens.
- Award/Program Size: The SFS Scholarship Track supports up to three years of tuition, room and board allowance, and a stipend for students in the general area cybersecurity. The scholarships provide academic year stipends of \$22,500 per year for undergraduate students and \$34,000 per year for graduate students. In addition, SFS scholarships cover expenses normally incurred by full-time students in the institution, including tuition and education related fees (does not include items such as meal plans, housing, or parking); a health insurance reimbursement allowance up to \$3,000 per year; a professional development allowance (travel, professional certification etc.) of \$4,000 and a book allowance of \$2,000 per academic year. Typical Scholarship Track awards are \$3-5 million for five years to support four classes of six students each. Capacity Track awards are up to \$500,000. For FY 2016, NSF expects to make 10-15 Scholarship Track awards and 10-15 Capacity Track awards.
- Due Date: Applications for Scholarship Track were due between September 1 and 15, 2016. 2017 dates are not yet known. Applications for Capacity Building Track awards are due between December 1 and 15, 2016.

Source: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504991, accessed September 15, 2016.

International Research Experience for Students (IRES)

- Overview: This program supports groups of U.S. undergraduate or graduate students conducting research abroad in collaboration with foreign investigators.
- Eligibility: Proposals must be submitted by a U.S. institution, organization, or professional society.
- Citizenship: Recipients must be U.S. citizens or permanent residents.
- Award/Program Size: Awards may be up to \$250,000 over three years. NSF has made 25 to 30 awards per year over the last few years.
- Due Dates: Proposals are due the third Tuesday in August annually.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12831, accessed September 15, 2016.

Enriched Doctoral Training in the Mathematical Sciences

- Overview: This program supports efforts by departments to provide supplementary experiences that expose graduate students in the mathematical sciences to other fields and careers outside academia.
- Eligibility: Proposals must be submitted by a U.S. academic institution, non-profit organization, or professional society.
- Citizenship: Participating graduate students supported with EDT funds must be U.S. citizens, nationals, or permanent residents.
- Award/Program Size: Awards may be up to \$600,000 over three years. NSF has funded two full awards per year in 2015 and 2016.
- Due Dates: Proposals are due the second Wednesday in July, annually.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505083, accessed September 16, 2016.

Individual Awards

Graduate Research Fellowship Program (GRFP)

- Overview: GRFP is NSF's signature graduate support program, providing support for students in the early stages of their graduate or doctoral studies in science and engineering. GRFP is NSF's premier program for support of graduate students.
- Eligibility: Fellowships are awarded for graduate study leading to research-based master's or doctoral degrees in all fields supported by NSF, including in science, social science, engineering, mathematics, as well as STEM education. Applicants are eligible to apply during their senior year of college, prior to entering graduate school, during their first year of graduate school, or during the fall term of their second year of graduate school. New for the 2017 competition, graduate students may only apply one time after starting graduate school, either in their first or second years of study. Applicants must be enrolled at a US-based institution for their graduate study.
- Citizenship: Applicants must be U.S. citizens, nationals, or permanent residents.
- Award/Program Size: NSF expects to award 2,000 new fellowships per fiscal year. Fellowships provide three years of support. For each year of support, NSF provides a stipend of up to \$34,000 to the Fellow and a cost-of-education allowance of \$12,000 to the degree-granting institution.
- Due Dates: Applications are due in the last week of October annually with the exact date dependent on the field in which the student is applying.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=6201, accessed September 15, 2016.

Graduate Research Internship Program (GRIP)

- Overview: The GRIP program provides supplemental funding to NSF Graduate Research Fellows to conduct collaborative research with select federal agencies. Fellows participate in internships with a host research mentor at national laboratories and facilities. Currently participating agencies include the Office of Naval Research, the Smithsonian Institution, the Census Bureau, EPA, the Federal Bureau of Investigation, NOAA, the US Geological Survey, and DHS.
- Eligibility: NSF Graduate Research Fellows, within their five-year term, are eligible to apply. Fellows can either be "on tenure" or "on reserve" to be eligible. Fellows must be making progress towards a degree, in which they are currently enrolled. Fellows may apply to a maximum of two partner agencies per fellowship year, with one application each.
- Citizenship: Depending on the agency, applicants may need to be U.S. citizens or permanent residents.
- Award/Program Size: NSF will provide \$5,000 towards the costs of the internship including research, relocation, travel and other expenses.
- Due Dates: Applications are due December 4 and May 6.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505127, accessed September 15, 2016.

Graduate Research Opportunities Worldwide (GROW)

- Overview: The GROW program provides travel funding for NSF Graduate Research Fellows to conduct collaborative international research abroad with researchers in specific NSF partner countries. Current opportunities exist in Australia, Austria, Brazil, Chile, Denmark, Finland, France, India, Ireland, Japan, Korea, Mexico, Netherlands, Norway, Singapore, Sweden, and Switzerland. NSF is not currently offering GROW in partnership with USAID as it had previously.

- Eligibility: NSF Graduate Research Fellows, within their five-year term, are eligible to apply. Fellows can either be “on tenure” or “on reserve” to be eligible. Fellows must have completed one year of their graduate program at the time of application and must be making progress towards their degree.
- Citizenship: No special requirements beyond the GRFP requirements.
- Award/Program Size: NSF expects to award up to 400 GROW fellowships annually. NSF will provide a travel allowance of \$5,000 to cover travel and research costs.
- Due Dates: Applications are due December 4 annually.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504876, accessed September 15, 2016.

Doctoral Dissertation Improvement Grants in the Directorate for Biological Science (DDIG)

- Overview: This program provides support for students studying areas of biology supported by the Division of Environmental Biology (DEB) and the Behavioral Systems Cluster of the Division of Integrative Organismal Systems (IOS). These grants provide partial support for doctoral dissertation research to participate in scientific meetings, to conduct research in specialized facilities or field settings, and to expand an existing body of dissertation research.
- Eligibility: An organization may submit only one proposal per student in a given year and a student may receive only one DDIG award. Students must have advanced to candidacy for a Ph.D. degree before the submission deadline to receive a DDIG award. Proposals should be submitted by the dissertation advisor on behalf of the student.
- Citizenship: There is no citizenship requirement for this program.
- Award/Program Size: NSF plans to make 100 to 120 awards annually. The maximum budget per award is \$13,000 total for up to two years.
- Due Date: Applications are due the second Thursday in October annually. For this year, the full proposal deadline date is October 13, 2016.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5234, accessed September 15, 2016.

Social, Behavioral, and Economic Sciences Doctoral Dissertation Research Improvement Grants (SBE DDRIG)

This program, which used to award grants to doctoral students to improve the quality of dissertation research across the Social, Behavioral, and Economic Sciences, no longer exists as a single program. However, numerous programs within the Directorate for Social, Behavioral, and Economic Sciences (SBE) have DDRIG tracks. Eligibility, award size, and due dates vary by program. Students should refer to the individual program site for more information on requirements for individual programs.

Source: http://www.nsf.gov/funding/education.jsp?fund_type=2, accessed September 15, 2016.

East Asia and Pacific Summer Institutes for U.S. Graduate Students (EAPSI)

- Overview: This fellowship program introduces graduate students in science and engineering to East Asia and Pacific science and engineering through first-hand research experiences and exposure to science policy, scientific infrastructure, society, culture, and language. Institutes are located in Australia, China, Japan, South Korea, New Zealand, Singapore and Taiwan and occur each summer between June and August.
- Eligibility: Applicants must be enrolled in a research-oriented master’s or Ph.D. program at a U.S. institution pursuing studies in fields of science and engineering supported by NSF.
- Citizenship: Applicants must be U.S. citizens or permanent residents.

- Award/Program Size: There are an estimated 205 awards annually. The program provides a \$5,000 stipend, a roundtrip international airline ticket, and a pre-departure orientation in the Washington, D.C. area. Foreign co-sponsoring organizations will provide additional support to cover EAPSI students' living expenses abroad during the period of the summer institutes, and will provide an in-country orientation to the science environment and culture of each location.
- Due Date: Applications are due the second Thursday in November or November 10 in 2016.

Source: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5284, accessed September 15, 2016.

U.S. Department of Agriculture

The U.S. Department of Agriculture's (USDA) primary mission is to regulate and implement public policy for the nation's food, agriculture, and natural resources. However, there are offices within USDA which support extramural research opportunities. The National Institute of Food and Agriculture (NIFA) is the primary extramural research and grant making agency of the USDA. Through the grants offered by NIFA, the USDA is able to conduct research critical to farmers, consumers, and communities. (In 2008, NIFA was created as a replacement for the organization formerly known as the Cooperative State Research, Education, and Extension Service.)

Institution Awards

NIFA National Needs Graduate and Postgraduate Fellowship (NNF) Grants Program

- Overview: This grant program supports training students for Master's and doctoral degrees in food, agricultural and natural resource sciences and special International Study or Thesis/Dissertation Research Travel Allowances (IRTA) for eligible recipients. Awards are specifically intended to support traineeship programs that engage outstanding students to pursue and complete their degrees in USDA mission areas.
- Eligibility: Applications are solicited from institutions that confer a graduate degree in at least one of the following targeted expertise shortage areas: animal and plant production; forest resources; agricultural educators and communicators; agricultural management and economics; food science and human nutrition; sciences for agricultural biosecurity; and training in integrative biosciences for sustainable food and agricultural systems.
- Citizenship: Beneficiaries of the NNF award must be U.S. citizens or nationals.
- Award/Program Size: An estimated \$3.1 million will be available for the FY 2016 funding cycle. There is no commitment by USDA to fund any particular application or to make a specific number of awards.
- Due Date: Applications are next due October 11, 2016.

Sources:

- <https://nifa.usda.gov/funding-opportunity/food-and-agricultural-sciences-national-needs-graduate-and-postgraduate>, accessed September 16, 2016.
- The current RFA is available at https://nifa.usda.gov/sites/default/files/rfa/FY%202016%20National%20Needs%20Fellowship_revised.pdf, accessed September 16, 2016.

Individual Awards

AFRI's Food, Agriculture, Natural Resources and Human Sciences Education and Literacy Initiative

- Overview: This grant program “supports fellowships to undergraduate students, predoctoral candidates, postdoctoral scholars, and professional development opportunities for secondary school teachers and educational professionals.” Projects must be aligned with one of the six Agriculture and Food Research Initiative (AFRI) Challenge Areas: Agricultural and Natural Resources Science for Climate Variability and Change; Childhood Obesity Prevention; Food Safety; Food Security; Sustainable Bioenergy; and Water Resources or one of the six AFRI Foundational areas: Plant health and production and plant products; Animal health and production and animal products; Food safety, nutrition, and health; Bioenergy, natural resources, and environment; Agriculture systems and technology; and Agriculture economics and rural communities.
- Eligibility: Eligibility is linked to the type of project (research, education or extension or integrated projects). Please see the RFA for complete information.
- Citizenship: Individuals applying must be U.S. citizens, nationals or permanent residents.
- Award/Program Size: \$18.9 million was available for awards in the FY 2016 funding cycle. Predoctoral Fellowship Grants are limited to a total of \$95,000 for project periods of up to two-years. The fellowship includes a \$25,000 annual stipend as well as \$19,500 in tuition, fees, and other educational expenses. Note that institutional allowance, in lieu of indirect costs, not to exceed \$3,000 per year, may be requested.
- Due Date: The most recent application deadline for predoctoral and postdoctoral grants was March 3, 2016. The next cycle for the fellowship has not yet been announced.

Source: <https://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-food-agriculture-natural-resources-and>, accessed September 16, 2016.

U.S. Agency for International Development

The U.S. Agency for International Development (USAID) is the primary U.S. agency responsible for engaging the developing world. USAID partners with the higher education community in support of solutions to key global development challenges. Priority areas during the Obama Administration include global health (including child and maternal health), combating and adapting to climate change, and promoting global food security. Under the previous Administrator, Rajiv Shah, USAID enhanced its focused on research and innovation, including through new programs to connect with students at U.S. universities.

Individual Awards

USAID Research and Innovation Fellowship Program

- **Overview:** USAID launched its Research and Innovation Fellows (RI) program as part of the new U.S. Global Development Laboratory (USGDL). This program provides fellows with the opportunity to undertake research and other innovative projects at “universities, private sector corporations, research institutions, government agencies, and non-governmental organizations” in seven different countries across the developing world for a period of two to 12 months. The goal for the program is for fellows to “amplify a broad-based knowledge network, catalyze learning, and foster the positive exchange of information and experiences.” Students may choose from a wide variety of specific abroad opportunities, ranging from the biological sciences to the social sciences.
- **Eligibility:** Applicants must be pursuing a degree at a U.S. academic institution at one of the six universities initially selected to partner with USAID for this program (Rutgers University, University of Chicago, the University of Notre Dame, University of California – Berkeley, University of California – Davis, and Arizona State University). Previously, NSF Graduate Research Fellows could also apply, but that partnership has been discontinued.
- **Citizenship:** Applicants must be U.S. citizens, nationals, or permanent residents.
- **Program/Award Size:** Fellows can be granted up to \$24,000 in travel funding.
- **Due Date:** For students attending one of the identified schools above, information regarding deadlines is available through the institution’s website.

Source:

<https://www.rifellowships.org/>, accessed September 16, 2016.

Donald M. Payne International Development Fellowship Program

- **Overview:** The USAID Donald Payne fellowship program honors the late former congressman by providing support for graduate students interested in careers in international development. The program supports students seeking master’s degrees in international affairs or subjects such as economics, development, history, political science, environmental studies, agriculture, public health, urban studies, public administration, or public policy. Applicants must commit to at least five years working for USAID as a member of the Foreign Service as a requirement of the program. The Payne Program specifically seeks applicants from minority groups historically underrepresented among international development professionals. The Program supports graduate study for students who want to work across a broad array of international development topic areas.

- Eligibility: Applicants must be U.S. citizens, be seeking admission to a two-year graduate program, and have a GPA of at least 3.2 (on a 4.0 scale) at the time of application. Applicants cannot already be enrolled in graduate school at the time of application.
- Citizenship: Applicants must be U.S. citizens. Additionally, fellowship money can only be used at U.S. institutions of higher education.
- Program/Award Size: The Payne Program provides up to \$93,000 over two years for graduate school, internships, and professional development activities. USAID awards approximately five fellowships per year.
- Due Date: Applications are due in January.

Source: <http://www.paynefellows.org/?areaid=2&contentid=941>, accessed September 16, 2016.

Internships

Volunteer Student Interns

The agency hosts both paid and unpaid internships throughout the academic year. USAID seeks undergraduate and graduate students studying a wide variety of fields. Opportunities with specific offices are posted on the USAID website as they become available. Requirements and deadlines vary by opportunity.

Source: <http://www.usaid.gov/work-usaid/careers/student-internships>, accessed September 16, 2016.

Department of Transportation

The Department of Transportation (DOT) oversees federal highway, air, rail, maritime, and other transportation administration activities and functions. The Office of the Assistant Secretary for Research and Technology (OST-R) oversees and coordinates DOT's research and education programs. DOT distributes research funds to state and local transportation agencies as well as academic institutions.

Individual Awards

Eisenhower Graduate Fellowship (GRAD)

- Overview: This program is one of the various fellowship programs under the Dwight D. Eisenhower Transportation Fellowship Program. GRAD provides students enrolled in master's and doctorate degree programs in transportation fields funding for tuition and research stipends.
- Eligibility: Applicants should be pursuing a master's or doctorate degree full-time in a transportation-related field and conducting ongoing transportation research.
- Citizenship: Students who are non-US citizens may apply for grants but must provide a certified copy of their I-20 or I-551 ID issued by the U.S. Citizenship & Immigration Service (CIS).
- Award/Program Size: The funding amount for each awardee depends on the selection and ranking from the National Selection Panel. Awardees may receive up to \$10,000 for tuition; master's level students may receive up to \$1,700 per month while doctoral level students may receive \$2,000 per month in stipends.

The Eisenhower Transportation Fellowship Program has awarded 150 to 200 fellowships each year, including GRAD fellowships.

- Due Date: Applications are typically due in April.

Source: <http://www.fhwa.dot.gov/tpp/ddetfp.htm>, accessed September 16, 2016.

Relevant Agencies Not Currently Offering Graduate Student Funding

Environmental Protection Agency

Science guides the regulatory decision-making of the Environmental Protection Agency (EPA). Utilizing intramural EPA laboratories as well as the extramural research community, the EPA Office of Research and Development (ORD) conducts research on topics such as air and water quality, ecosystem assessment and restoration, climate change, impacts to human health, and pollution prevention. ORD is the research arm of EPA. EPA previously funded the Science to Achieve Results (STAR) graduate fellowships, which was discontinued in 2015. STAR supported master's and doctoral candidates in environmental studies, including traditional environmental disciplines and fields such as social anthropology, urban and regional planning, and decision sciences. The program supported about 100 new fellows each year, but was terminated as part of the Obama Administration's push for consolidation of STEM education programs. More information about EPA internship opportunities can be found at <http://www.epa.gov/ncer/fellow/>.

National Endowment for the Humanities

Currently the National Endowment for the Humanities (NEH) does not support graduate education. There is an effort from the university community to advocate in support of NEH creating a new competitive grant program that would support faculty-graduate student collaborations similar to those found in the sciences. This program would allow students and researchers to explore areas of NEH interest such as foreign languages and cultural studies, religious histories, and the impact of globalization on teaching and scholarship, among others. Graduate students can participate in NEH-supported seminars and institutes. More information on these programs is available at <http://www.neh.gov/grants/education/summer-seminars-and-institutes> and <http://www.neh.gov/grants/odh/institutes-advanced-topics-in-the-digital-humanities>.

National Endowment for the Arts

The National Endowment for the Arts (NEA) supports traditional art forms such as music, dance, and theater projects. There are also opportunities for the funding of art promotion and enhancing access to the arts to unserved or underserved populations. NEA does not currently offer any programs specifically for graduate students.

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