

Supporting Black Students Through Their SEM Career Journeys: A Workshop

Roundtable on Black Men & Women in Science, Engineering & Medicine

The National Academies of Science · Engineering · Medicine

Financial Supports and Programs Available to Historically Underrepresented and Underserved Students Throughout Their SEM Educational Journeys

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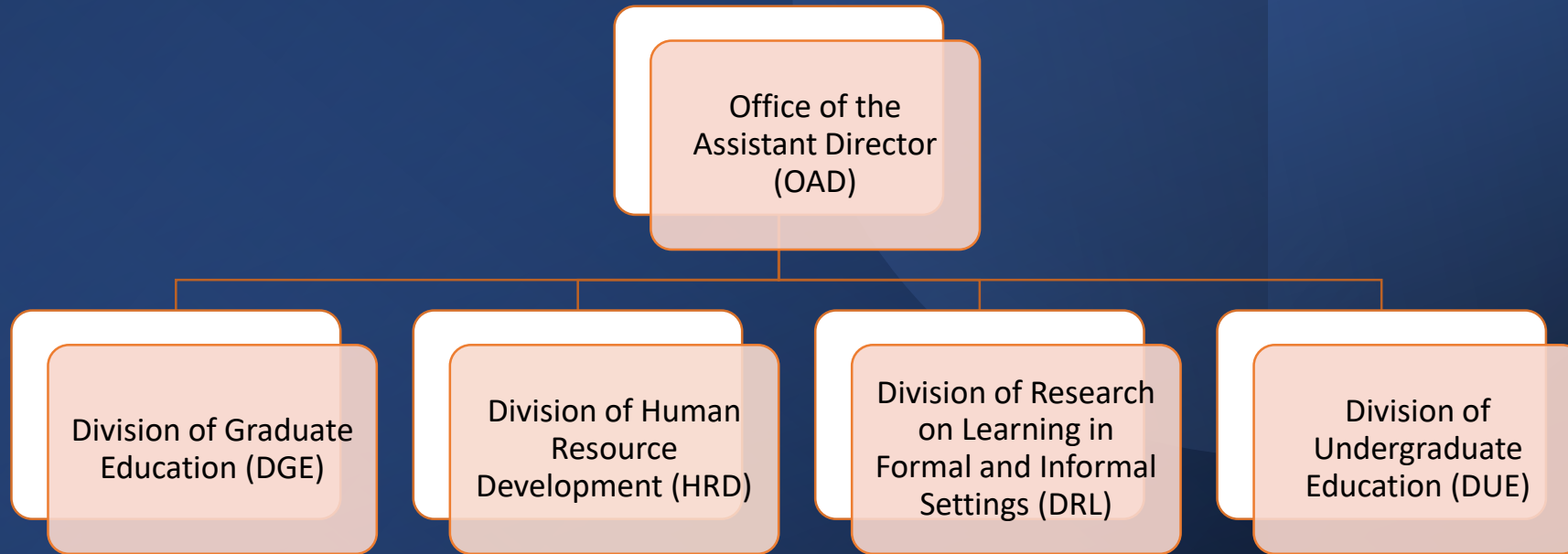
Division of Human Resources Development (HRD)

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Directorate for Education and Human Resources (EHR)



- One of 8 directorates that support science and engineering research and education
- All EHR divisions have financial supports and programs for students
- Subscribe to National Science Foundation Update to find out about funding opportunities:

<https://public.govdelivery.com/accounts/USNSF/subscriber/new?qsp=823>



Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Program (NSF 22-527)

S-STEM provides awards to enable low-income students with academic ability, talent, or potential to pursue successful careers in promising STEM fields



S-STEM Provides Awards to Institutions of Higher Education

- Provide scholarships to domestic low-income academically talented students with demonstrated financial need pursuing a degree in STEM
- Adapt, implement, and study evidence-based curricular and co-curricular activities to support S-STEM Scholars
- Increase retention, student success, and graduation of STEM students
- Test strategies for systematically supporting student academic and career pathways in STEM in ways that align with institutional contexts and resources
- Disseminate findings related to the supports and interventions undertaken by the project



Eligible Degrees and Disciplines

Eligible Degrees:

- Associate of Arts, Science, Engineering, or Applied Science
- Bachelor of Arts, Science, Engineering, or Applied Science
- Master of Arts, Science, or Engineering
- Doctoral

Eligible Disciplines:

Projects supporting scholars studying in any disciplinary fields in which NSF provides research funding

Ineligible Disciplines:

- All clinical fields
- Degrees in Business Administration at any levels
- Student pursuing K-12 teacher licensure – see Noyce Program (NSF 21-578)



Scholar Eligibility

- Provides scholarship to domestic low-income, academically-talented students of \$10,000 per year for up to 4 years
- Low-income, as determined by the institution's financial aid office
- Academic talent, as defined by the project. May include a GPA target, letters of recommendation, and other factors
- Projects are strongly encouraged to develop holistic selection criteria that look to identify talent in many ways



Louis Stokes Alliance for Minority Participation (LSAMP) Program (NSF 20-590)

- Authorized by Congress in 1991
- Significantly increase the quality and quantity of historically underrepresented students successfully completing STEM B.S. degree programs to diversify workforce
- Implement strategies that focus on critical transition points
- Alliances are composed of universities and colleges, government labs, industry and not for profit partners



LSAMP Alliance Project Types

Bridge to the Baccalaureate Alliances (B2B)

3-Year projects focused on activities that provide effective educational preparation of community college students from underrepresented minority populations for successful transfer to four-year institutions in STEM degree programs

STEM Pathways Implementation-Only/Research Alliances (SPIO/SPRA)

SPIOs are 5-year implementation projects (<10 yrs.) with focus on particular STEM pathways and/or on activities dedicated to diversifying STEM disciplines

SPRAs are 5-year implementation and research projects (>10 yrs.) that focus on the full STEM pathway but also serve as a hub for the production of scholarly STEM research and evaluation to increase the knowledge-base and utilization in broadening participation

Bridge to the Doctorate Activity (BD)

2-Year projects focused on providing post-baccalaureate fellowship support to a cohort of 12 LSAMP students for the first two years of their STEM graduate studies and providing the necessary academic and research skills that will enable them to successfully earn STEM doctoral degrees and transition into the STEM workforce



LSAMP MODEL ELEMENTS

Activity	Academic Integration	Social Integration	Professionalization
Summer Bridge	✓	✓	
Peer Study Group	✓	✓	
Learning Centers	✓	✓	
Academic Advising	✓		
Summer Academic Enrichment	✓		
Tutoring	✓		
Research Experience	✓	✓	✓
Mentorships	✓	✓	✓
Conferences	✓		✓
Internships	✓	✓	✓
Career Awareness			✓
GRE Test Preparation	✓		✓
Graduate School Admissions Support			✓

- **Academic and Social Integration** – The focus on academic and social integration provides activities and services that build up a set of positive interactions between a URM student and the academic and social systems of the university – *Vincent Tinto's Model (1975)*
- In addition, **Professionalization** – Prepares students for the future and teaches them the skills, culture and attitudes of their discipline – *Urban Institute, Beatriz Clewall and Clemencia Cosentino (2006)*



Scholar Eligibility

LSAMP Institution:

- 50+ Alliances
- 600+ Institutions
- 6 Centers
- https://lsmrce.org/lsamp/lsamp_community_map.aspx

Targeted Historically Underrepresented Groups:

- African Americans
- Hispanics/Latino
- Native Americans
- Native Alaskans
- Pacific Islanders

Eligible Disciplines:

- Projects supporting scholars studying in any disciplinary fields in which NSF provides research funding

Student Criteria:

- Projects are strongly encouraged to develop holistic selection criteria that look to identify Scholars in many ways



LSAMP Provides Awards to Institutions of Higher Education

- B2B Alliances: up to **\$500,000** per year for 3 years
- SPIO/SPRA Alliances (*new/renewal*): up to **\$500,000, \$600,000** or **\$700,000** per year for 5 years
- BD Activity: up to **\$1,075,000** total for 2 years
 - ✓ Student Stipends – **\$32,000** per year for two years for each of the 12 students (\$768,000)
 - ✓ Cost-of-Education Allowance – tuition, fees and health insurance for 12 students at **\$12,000** each per year for up to two years (\$288,000)
 - ✓ Additional funds up to **\$19,000** for other cost categories (e.g., evaluation, senior personnel salaries, wages and fringe benefits, travel, materials and supplies, and applicable indirect costs) that contribute to the effectiveness of the BD activity



Graduate Research Fellowship Program (NSF 21-602)

- The NSF GRFP recognizes and supports outstanding graduate students in NSF-supported STEM disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions
- 60,000+ GRFPs awarded since 1952
- 40+ Nobel Laureates and 450+ Members of the National Academy of Sciences
- ~500+ Academic Institutions represented per competition



GRFP Applicant Levels

L1: Undergrad seniors or baccalaureates never in graduate program

L2: 1st year graduate or currently enrolled BS/MS (completed 3 years)

L3: 2nd year graduate students (< 1 academic year completed in 1st graduate degree program)

1st year doctoral students directly from BS/MS

L4: Returning graduate students with > 2-year interruption



Scholar Eligibility

- U.S. citizens, nationals, or permanent residents
- Early-Career: undergrad or grad students
- Pursuing research-based master's and/or doctoral STEM degrees
- STEM or STEM Education
- Full-time enrollment in graduate degree program at accredited, non-profit US institution of high education
- NO foreign institutions



GRFP Application Components

- Personal profile, education, and work experience
- Graduate Research Plan (2 pages)
- Personal, relevant background and future goals statements (3 pages)
- Transcripts
- Two to three letters of reference



GRFP Provides Awards to Individual Students

- \$34,000 Annual Stipend
- \$12,000 Cost of Education Allowance
- 5-Year Fellowship Period/3 Years Financial Support
- No Post-Graduate Study Service Requirement



Useful Resources

- Submit proposals in Research.gov <https://www.research.gov/research-web/> and Grants.gov www.grants.gov; **Fastlane will be discontinued 12/31/2022**
- Prospective New Awardee Guide, January 2018: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pnag
- Award Information: www.nsf.gov/awardsearch
- National Center for Science & Engineering Statistics: <https://www.nsf.gov/statistics/reports.cfm>
- Funding Opportunities: www.nsf.gov/funding



**Thank You for
Your Attention!**

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