Lewis-Burke Funding Opportunities

ED Invites Applicants for FY 2022 Education, Innovation, and Research (EIR) Grants

Lewis-Burke Associates LLC – May 2, 2022

The Office of Elementary and Secondary Education (OESE) within the Department of Education (ED) issued a notice inviting applications (NIA) for the Education Innovation and Research (EIR) program’s FY 2022 competitions. The EIR program supports efforts to create, implement, and evaluate innovative, evidence-based solutions to academic challenges facing high-need students. The EIR program has three tracks: Early-Phase, Mid-Phase, and Expansion. Each track requires a different level of prior evidence of effectiveness and level of scale. During the implementation of an EIR project, grantees are encouraged to develop evidence of effectiveness and new strategies to improve student achievement and attainment. Applicants and grantees are also asked to develop organizational plans on how the project would continue through implementation after federal funding ends.

The EIR Program received a large 20 percent boost in funding in the fiscal year (FY) 2022 budget and the Department has indicated strong interest in continuing growth in the program. For this competition, ED estimates having approximately $160 million to split amongst the three phases. Each phase has an estimated period of performance of 60 months. Higher education institutions may apply as part of a consortium led by a state education agency (SEA), local education agency (LEA), the Bureau of Indian Education (BIE), or as a non-profit organization recognized under 34 CFR 75.71.

ED will host a pre-application webinar on May 5, 2022 at 2 PM ET. Webinar details and additional resource material can be found at https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2022-competition/.

Further details regarding each of the competition phases and their specific requirements and priorities can be found below.

Early-Phase Grants

Early-phase grants provide funding for the development, implementation, and feasibility testing of a program that, with previous research as the foundation, can improve student achievement and attainment. Continuous improvements to project design and implementation are expected and encouraged. This competition includes four absolute priorities, which applicants are required to address, and two competitive preference priorities:

- **Absolute Priority 1:** Demonstrates a Rationale
- **Absolute Priority 2:** Field-Initiated Innovations—General
- **Absolute Priority 3:** Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: STEM
- **Absolute Priority 4:** Field-Initiated Innovations—Meeting Student Social, Emotional, and Academic Needs
  - **Competitive Preference Priority 1:** Promoting Equity in Student Access to Educational Resources and Opportunities.
  - **Competitive Preference Priority 2:** Addressing the Impact of COVID-19 on Students, Educators, and Faculty.

OESE expects to grant 11-20 awards in this competition with an average size award of $4 million. Notice of intent to apply is due by May 27, 2022 and applications are due no later than July 21, 2022. Further information for the early-phase grants competition can be found here.
**Mid-Phase Grants**

Mid-phase grants provide funding for the evaluation and implementation of a program that has previously been implemented under an early-phase grant or another effort with similar criteria. Similar to early-phase grants, this competition includes four absolute priorities, which applicants are required to address, and two competitive preference priorities:

- **Absolute Priority 1:** Demonstrates a Rationale
- **Absolute Priority 2:** Field-Initiated Innovations—General
- **Absolute Priority 3:** Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: STEM
- **Absolute Priority 4:** Field-Initiated Innovations—Meeting Student Social, Emotional, and Academic Needs
  - **Competitive Preference Priority 1:** Promoting Equity in Student Access to Educational Resources and Opportunities.
  - **Competitive Preference Priority 2:** Addressing the Impact of COVID-19 on Students, Educators, and Faculty.

OESE expects to grant between five to 12 awards with the average funding awarded as $8 million. Notice of intent to apply is due by **May 27, 2022** and applications are due no later than **June 21, 2022**. Further information on the mid-phase grants competition can be found [here](#).

**Expansion Grants**

Expansion grants provide funding for evaluation and implementation after being found to produce significant impacts through under the mid-phase grant program. These projects are encouraged to be implemented at the national level, helping specifically underserved and high-need students. This competition includes two absolute priorities, which applicants are required to address, and two competitive preference priorities:

- **Absolute Priority 1:** Strong Evidence
- **Absolute Priority 2:** Field-Initiated Innovations—General
  - **Competitive Preference Priority 1:** Promoting Equity in Student Access to Educational Resources and Opportunities.
  - **Competitive Preference Priority 2:** Addressing the Impact of COVID-19 on Students, Educators, and Faculty.

OESE expects to grant one to five awards with each awardee receiving an average funding amount of $15 million. Notice of intent to apply is due by **May 27, 2022** and applications are due no later than **June 21, 2022**. Further information on the expansion grants competition can be found [here](#).

---

**ONR Releases FY 2023 Young Investigator Program (YIP)**

*Lewis-Burke Associates LLC – April 27, 2022*

The Office of Naval Research (ONR) released its fiscal year (FY) 2023 funding opportunity announcement (FOA) for the Young Investigator Program (YIP). This program provides early career university faculty a path into the Navy’s research enterprise through multi-year research grants. The YIP specifically helps ONR identify promising young tenure-track faculty who demonstrate the ability to deliver innovative research aligned with ONR’s research priorities. This popular program is also offered by other Department of Defense (DOD) agencies, such as the Army Research Office (ARO) and the Air Force Office of Scientific Research (AFOSR).

ONR will accept proposals that address research areas outlined in its broad research portfolio and are of interest to ONR program officers. A complete list of topics of interest to each of ONR’s six departments
(listed below) is available on ONR’s S&T webpage located at https://www.onr.navy.mil/en/Science-Technology/Departments:

- Information, Cyber and Spectrum Superiority (Code 31);
- Ocean Battlespace and Expeditionary Access (Code 32);
- Mission Capable, Persistent and Survivable Naval Platforms (Code 33);
- Warfighter Performance (Code 34);
- Aviation, Force Projection and Integrated Defense (Code 35); and
- Naval Accelerator Department (Code 36)

ONR has offered the following best practices to increase the success of YIP candidates:

- Contact the ONR program officer before submitting a proposal to discuss research ideas.
- Try to understand the program officer’s portfolio and interests.
- Review the ONR website; become familiar with Navy terminology/where your technology fits in.
- Demonstrate merit with a record of publishing in peer reviewed journals and a strong letter of support from the university and/or department.
- Submit a complete curriculum vitae with the white paper and/or proposal package.

**Due Date:** Proposals should be submitted via www.grants.gov no later than **July 1, 2022, at 11:59 PM ET.** Applicants are strongly encouraged to contact the program officer in their technical area to discuss their research ideas before submitting a proposal. Proposers may optionally send a brief, informal pre-proposal, or white paper to their designated ONR program officer and must copy ONRYIP@navy.mil to initiate a discussion.

**Total Funding and Award Size:** Individual awards will be funded at a maximum of $510,000 for a three-year base period, with a possibility for an additional $250,000 during the base period as supplemental funding for equipment, testing, and other similar expenses. ONR anticipates making 15 to 35 awards with $8 million to $18 million of total funding available.

**Eligibility and Limitations:** This FOA is open to first or second full-time tenure-track or tenure-track equivalent faculty who have received their degree on or after January 1, 2015.

Faculty from U.S. institutions of higher education that award degrees in science, engineering, and/or mathematics are eligible to apply. U.S. nonprofit organizations operating for scientific and educational services may also submit proposals. Proposers must be a U.S. citizen, national, or permanent resident. Note that ONR makes awards to institutions, not individuals. Researchers must therefore submit a Letter of Support from an appropriate university or organization official with their proposal. Co-principal investigators (Co-PIs) are not allowed. Additional eligibility and submission instructions can be found in the full FOA.

**Sources and Additional Information:**

- The Full FOA is available at here, or at www.grants.gov under solicitation number “N00014-22-S-F007."
- Information on ONR’s technology areas can be found at https://www.onr.navy.mil/our-research/technology-areas.
- A list of ONR program officers is available at https://www.onr.navy.mil/our-research/our-program-managers.

**DOE Releases $100 Million in Funding Solicitations for Math Centers and other Mathematics and Computational Science Research**

Lewis-Burke Associates LLC – April 19, 2022
The Department of Energy (DOE) Advanced Scientific Computing Research (ASCR) program recently released five funding opportunities that would provide about $100 million to support mathematics and computer science research. In general, ASCR supports specialized computer science and mathematics research and development aimed at solving high-performance computing challenges and developing next-generation computing technologies. ASCR, with congressional support through annual appropriations, continues to grow funding for math and computer science research, especially at research universities, consistent with recommendations from its advisory committee. Over the last five years, ASCR invested heavily in the development and procurement of exascale computing systems, but is now transitioning to research and development of next-generation computing systems and diverse architectures and growing workforce development programs. Below is a list of the most recent funding solicitations followed by a more detailed analysis of each opportunity.

- **Mathematical Multifaceted Integrated Capability Centers (MMICCs)**
  - ASCR will fund five-year, multi-institutional collaborations for projects that focus on the challenge of integrating multiple mathematical techniques to obtain solutions.
  - **Pre-applications are due May 27, 2022.** Institutions are limited to 2 proposals as the lead.
  - Award size is expected to be $2 million - $3 million per year.

- **Exploratory Research for Extreme-Scale Science (EXPRESS)**
  - ASCR will fund two-year, multi-institutional collaborations for projects to explore innovative approaches in priority research areas such as artificial intelligence, quantum information science, high-productivity programming, and discrete event simulation.
  - **Pre-applications are due May 20, 2022.** Institutions are limited to 6 proposals as the lead.
  - Award size for non-National Lab led proposals is $200,000 per year.

- **Management and Storage of Scientific Data**
  - ASCR will fund individual or multi-institution teams for up to three years to optimize the management of massive amounts of data that must be moved and reproducibly analyzed using sophisticated mathematical techniques, including machine learning.
  - **Pre-applications are due May 5, 2022.** Institutions are limited to 2 proposals as the lead.
  - Award size for non-National Lab led proposals is $100,000 - $300,000 per year.

- **Data Visualization for Scientific Discovery, Decision-Making, and Communication**
  - ASCR will fund individual or multi-institution teams to aid in the development of informative and interactive visualization of complex scientific data.
  - **Pre-applications are due May 10, 2022.** Institutions are limited to 2 proposals as the lead.
  - Award size for non-National Lab led proposals is $100,000 - $300,000 per year.

- **Randomized Algorithms for Combinational Scientific Computing**
  - ASCR will fund individual or multi-institution teams to develop randomized algorithms for discrete and combinatorial problems in DOE’s mission areas.
  - **Pre-applications are due May 19, 2022.** Institutions are limited to 2 proposals as the lead.
  - Award size is $400,000 - $800,000 per year.

**Mathematical Multifaceted Integrated Capability Centers (MMICCs)**

ASCR released a $40 million funding opportunity for new Mathematical Multifaceted Integrated Capability Centers (MMICCs). The centers will support large teams of mathematicians working across mathematics disciplines on complex, multiscale research challenges. The research should focus on mathematical abstractions of science problems in key DOE challenge areas, such as the smart grid or materials for energy applications. This will allow teams to collaborate in innovative ways to address grand challenge problems more effectively than focusing on a single issue.

This is the third time the MMICCs program has been competed. The previous round of projects included a
focus on the mathematics of rare events as applied to the power grid; the integration of physical governing equations and neural networks to increase the efficiency and accuracy of scientific machine learning; and methods for making optimization and inversion under uncertainty tractable for additive manufacturing and advanced materials.

**Due Dates:** Pre-applications are required and due on May 17, 2022. Full applications are due on June 28, 2022.

**Total Funding and Award Size:** The centers will be funded for five-year terms. DOE anticipates awarding three to four centers with an award size of $2 million to $3 million per year. Cost sharing is not required.

**Sources and Additional Background:** The complete DOE solicitation is available at: https://science.osti.gov/ascr/-/media/grants/pdf/foas/2022/SC_FOA_0002704.pdf

**Exploratory Research for Extreme-Scale Science (EXPRESS)**

ASCR released a $20 million funding opportunity for new projects in basic research to explore potentially high impact approaches in extreme-scale science and scientific computing. Extreme-scale science is focused on utilizing game changing technology development in scientific computing and developing effective paradigms and approaches to utilize the new technology most efficiently. Proposed research should not focus strictly on a specific science use case, but rather on creating the body of knowledge and understanding that will inform future advances in extreme-scale science. Specific topic areas of interest include:

- Federated Scientific Machine Learning
- Differentiable Programming
- Explainable Artificial Intelligence
- Parallel Discrete Event Simulation
- Quantum Algorithms and Mathematical Methods
- Quantum Computing at the Edge

**Due Dates:** Pre-applications are required and due on May 12, 2022. Full applications are due on June 23, 2022.

**Total Funding and Award Size** The centers will be funded for two-year terms. DOE anticipates awarding 25-35 awards with a size of $200,000 for a non-National Lab or $450,00 for a National Lab. Cost sharing is not required.

**Sources and Additional Background:** The complete DOE solicitation is available at: https://science.osti.gov/ascr/-/media/grants/pdf/foas/2022/SC_FOA_0002717.pdf

**Management and Storage of Scientific Data**

ASCR released a $13 million funding opportunity for research to optimize the management of massive amounts of data that must be moved and reproducibly analyzed using sophisticated mathematical techniques, including machine learning. Proposals should focus on developing new capabilities to utilize smart storage and networking hardware that may provide transformational breakthroughs to challenges that science faces when using large amounts of data. Research breakthroughs would benefit a wide range of DOE activities including materials science, chemistry, climate modelling, the development of new clean energy sources, and new approaches to increasing energy efficiency and reducing energy consumption. Topics of interest include Priority Research Directions identified in the ASCR Workshop on the Management and Storage of Scientific Data held in January 2022:

- High-productivity interfaces for accessing scientific data efficiently;
- Understanding the behaviour of complex data management systems in DOE science
- Rich metadata and provenance collection, management, search, and access; and
- Reinventing data services for new applications, devices, and architectures.

**Due Dates:** Pre-applications are required and due on May 5, 2022. Full applications are due on June 13, 2022.
**Total Funding and Award Size** The projects will be funded for three years. Award size for non-National Lab awards is $100,000 - $300,000 and for National Lab awards is $250,000 - $750,000.

**Sources and Additional Background:** The complete DOE solicitation is available at: https://science.osti.gov/ascr/-/media/grants/pdf/foas/2022/SC_FOA_0002725.pdf

**Data Visualization for Scientific Discovery, Decision-Making, and Communication**

ASCR released a $13 million funding opportunity for research in new techniques and theory needed to aid in the development of informative and interactive visualization of complex scientific data of interest to DOE priorities, including visualizing Earth systems, astrophysical systems, advanced manufacturing, and quantum systems. Projects are expected to help engage a broader range of scientific users through more user-friendly simulations and visualizations of complex data. Topics of interest are derived from Priority Research Directions highlighted in the *ASCR Workshop on the Visualization for Scientific Discovery, Decision-making, and Communication*, held in January 2022 and proposals must address one of the following topics:

- Advancing theory and techniques for visualization to support the analysis and understanding of complex scientific data;
- Introducing interoperable and adaptable visualization to support diverse scientific workflows across all scales; and/or
- Harnessing technology innovations to accelerate science through visualization.

**Due Dates:** Pre-applications are required and due on May 10, 2022. Full applications are due on June 21, 2022.

**Total Funding and Award Size** The projects will be funded for three-year. Award size for non-National Lab awards is $100,000 - $300,000 and for National Lab awards is $250,000 - $750,000.

**Sources and Additional Background:** The complete DOE solicitation is available at: https://science.osti.gov/ascr/-/media/grants/pdf/foas/2022/SC_FOA_0002726.pdf

**Randomized Algorithms for Combinational Scientific Computing**

ASCR released a $10 million funding opportunity to enable researchers to investigate the novel use of randomness in internal algorithmic decisions for accelerating the time to solution, increasing the size of problems that can be solved, or improving the reliability of predictions. Proposals should advance DOE priority areas such as climate science, astrophysics, fusion, materials design, and the Energy Earthshots initiative.

The solicitation builds off of the Priority Research Directions highlighted in the *ASCR Workshop on Randomized Algorithms for Scientific Grouping*, held in January 2021, and the subsequent Workshop Report. Key research areas include:

- Randomized algorithms for discrete problems that cannot be modelled as networks
- Randomized algorithms for solving well-defined problems on networks
- Universal sketching and sampling on discrete data
- Randomized algorithms for combinatorial and discrete optimization
- Randomized algorithms for machine learning on networks

**Due Dates:** Pre-applications are required and due on May 19, 2022. Full applications are due on June 30, 2022.

**Total Funding and Award Size** Projects will be funded for three years. DOE plans on awarding 4-9 awards. Award size is $400,000 - $800,000 a year.

**Sources and Additional Background:** The complete DOE solicitation is available at: https://science.osti.gov/ascr/-/media/grants/pdf/foas/2022/SC_FOA_0002722.pdf
EDA Releases 2022 Build to Scale Solicitation

Lewis-Burke Associates LLC – April 15, 2022

The U.S. Department of Commerce’s Economic Development Administration (EDA) released a solicitation for their competitive Build to Scale (B2S) program (formerly the Regional Innovation Strategies program). B2S aims to stimulate entrepreneurship, cluster based economic development, job growth in emerging sectors, and the translation of discoveries from the lab to the marketplace. As with last year’s competition, the 2022 solicitation features two distinct funding opportunities: the Venture Challenge and the Capital Challenge.

B2S is popular among universities and research organizations as one of the only reoccurring federal funding streams that directly supports capacity-building for regional technology-based economic development. The program helps address demonstrated needs in innovation ecosystems through projects that expand regional entrepreneurship, grow scalable industries, forge cross-sectional partnerships, and create jobs. Project plans must clearly identify goals for a regional ecosystem and core partners, as well as demonstrate a proposed need and solution to better stimulate strategic, technology-based economic growth in said ecosystem. Additional information on each of the funding opportunities is provided below. Interested applicants are encouraged to review previous awards for the programs to better understand desired activities and impacts.

Venture Challenge (formerly the i6 Challenge): The goal of the Venture Challenge is to stimulate entrepreneurship and the growth of scalable startups in a region by providing support to innovation-facing organizations like universities or accelerators. Funding could be used to leverage regional strengths to advance job creation, improve research commercialization, and remediate “structural barriers that inhibit regional innovation capacity and resilience.” As with the last competition, there will be two funding levels for the Venture Challenge, Build and Scale. Each program focuses on different stages of regional capacity-building endeavors and applicants for both programs must demonstrate commitment and ability to achieve the proposed impacts of their projects. EDA plans to award approximately $38 million total to Venture Challenge awardees. Overviews of the programs are provided below.

- **Venture Challenge Build** provides support for piloting interventions to address identified needs and/or implementing known interventions to a new community. **EDA will provide up to $750,000 over a three-year project period for Build projects.**
- **Venture Challenge Scale** supports the scaling of known or existing efforts that have achieved positive impacts. Applicants should demonstrate their proven record for success in building regional capacity and carrying out programs. While the Scale track can build upon any successful intervention, this could provide a pathway for applicants previously funded under the i6 Challenge to further scale their work after their project period has ended. **EDA will provide between $750,000 and $2 million over a three-year project period for Scale projects.** This is $500,000 more than the topline funding amounts for the 2021 competition.

Capital Challenge (formerly Seed Fund Support): This program will provide programmatic and operational funding for the planning, formation, marketing, expansion, or launch of regional seed capital funds to support scalable startups (e.g., angel, seed, or investment funds). Funding could also be provided to organizations that support equity-based capital development in a local community, including networks of investors or investor training programs. For the first time, there will be two funding levels for the Capital Challenge, Form and Deploy. EDA plans to award approximately $7 million total to Capital Challenge awardees. Overviews of the programs are provided below.

- **Capital Challenge Form** focuses primarily on early-stage capacity-building for capital deployment in a regional ecosystem. This includes support for identifying, educating,
and connecting investors and other equity-based capital sources within a regional ecosystem, as well as identifying sources of investments and building capacity to conduct due diligence and close deals. **EDA will provide up to $300,000 over a three-year project period for Form projects.**

- **Capital Challenge Deploy** supports the operation or enhancement of investment vehicles that invest in startups “based on a thesis that clearly supports and fosters the growth of a regional technology cluster and its entrepreneurship ecosystem.” This could include support for methods to raise and deploy equity or equity-based capital in a regional technology cluster through a seed fund or any other collaborative investment vehicle. Investment strategies should thoroughly evaluate companies’ high-growth potential. **EDA will provide between $300,000 and $750,000 for Deploy grants over an expected three-year project period.** This is $350,000 more than the topline funding amounts for the 2021 Capital Challenge competition. For this competition, EDA is allowing applicants to justify a shorter or longer performance period if needed, which would be subject to agency approval. Funding from EDA or the match sources are for the programmatic costs and operational support for investment vehicles and cannot be used to invest in specific companies or other ventures.

Applicants should closely follow instructions in the NOFO, as EDA has been known to immediately disqualify some submissions with technical mistakes, and to consult with their region’s designated EDA contact for questions and support. For this year’s competition, EDA is also asking applicants to outline in what ways a project will benefit historically underserved populations, as well as alignment with any of the Biden Administration’s investment priorities for EDA, among several other evaluation factors.

**Cost-Sharing:** At the time of the submission, applicants must demonstrate a matching cost-share from a non-federal source. The applicant must provide proof that a minimum 1:1 match will be committed to the project for the project period, be available when needed, and not be conditioned in any way that “may preclude its use consistent with the requirements of EDA investment assistance.” In-kind contributions may be used for a project’s cost-share requirement. Additional restrictions on matching requirements are provided in the full solicitation.

**Dates:** Applications are due no later than **June 13, 2022, at 11:59 PM ET.** Successful applicants should expect to receive grant award notification approximately 90-120 days following the application deadline.

**Eligibility and Limitations:** States, Indian tribes, cities or other political subdivisions of a state, including nonprofits, institutions of higher education, public-private partnerships as defined by the solicitation, science or research parks, federal laboratories, economic development organizations, and consortia of the previously mentioned, are all eligible to apply. B2S is not restricted to applicants in economically distressed regions.

Entities that, as of November 1, 2022, have not yet completed their performance periods for a previous i6 Challenge or Venture Challenge award are not eligible to compete for the Venture Challenge in 2022. Similarly, entities that have not completed the performance period for a previous Seed Fund Support (SFS) or Capital Challenge award are not eligible to compete for the Capital Challenge during this cycle. Institutions may apply to both challenges but can only submit one application per challenge. This means an applicant can submit one application for the Form OR Deploy portions of the Capital Challenge and submit one application for either the Build OR Scale portions of the Venture Challenge.

**Sources and Additional Information:**
- The full announcement is available at [https://eda.gov/files/oie/b2s/fy22/FY22-Build-to-Scale-NOFO.pdf](https://eda.gov/files/oie/b2s/fy22/FY22-Build-to-Scale-NOFO.pdf)
AHRQ Issues Solicitation on Reducing Racial and Ethnic Healthcare Disparities in Chronic Conditions by Dissemination and Implementation of Patient Centered Outcomes Research (PCOR) Evidence

Lewis-Burke Associates LLC – April 15, 2022

The Agency for Healthcare Research and Quality (AHRQ) released a new solicitation that aims to disseminate and implement patient-centered outcomes research (PCOR) findings into innovative, evidence-based interventions to reduce healthcare disparities in chronic health conditions. PCOR is comparative clinical effectiveness research of the impact on health outcomes of two or more preventative, diagnostic, treatment, or healthcare delivery approaches on health outcomes, including those that are meaningful to patients. Applications are required to disseminate and implement PCOR findings across healthcare settings to address disparities in health outcomes and quality for racial and ethnic minority populations and AHRQ priority populations (linked below).

Research objectives for this opportunity include taking existing PCOR evidence for reducing or eliminating health and healthcare disparities and implementing interventions; and applying innovative and scalable PCOR interventions in expanded settings to uncover evidence in different clinical settings. In addition, applicants must include a theoretical framework supporting their proposed projects that demonstrates the multi-domain, multilevel factors that may influence health disparities.

Though not limited to the following, areas where evidence-based interventions have evidence for decreasing disparities include:
- Improving control and management of chronic conditions including cardiovascular disease (CVD);
- promoting improved cancer and chronic condition screening; and
- improving prenatal care, maternal health, and infant mortality.

Due Date: The due date for this opportunity is June 17, 2022.

Award Information: AHRQ will invest up to $3.67 million over three years to support up to six awards. The totals costs for a project will not exceed $500,000 in any given year and $1.5 million for the entire project.

Eligibility: Institutions of higher education, nonprofits other than institutions of higher education, and state and local governments are eligible to apply for this opportunity.

Sources and Additional Information:
- The full funding opportunity is available at https://grants.nih.gov/grants/guide/rfa-files/RFA-HS-22-001.html#_Section_II._Award_1.
The U.S. Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) released the fiscal year (FY) 2022 request for applications (RFA) for the Agriculture and Food Research Initiative (AFRI) Education and Workforce Development (EWD) program. The EWD program will provide $68 million in new grants for agricultural education, extension, and training activities, a significant increase over the $45 million in new grants available in the FY 2021 RFA, but slightly below the proposed $70 million included in the FY 2022 budget request. The EWD program aims to address anticipated shortages of qualified graduates in the agricultural, food, and natural resource sectors of the workforce. To this end, this program will support activities including development opportunities for K-14 education professionals, workforce training at community colleges, research and extension training for undergraduate students, and pre- and post-doctoral fellowships. EWD has four overarching goals: enhancing agricultural literacy and workforce development; training and upskilling the agricultural workforce; developing pathways for undergraduates to enter the food and agricultural sectors; and advancing science.

All proposals under this RFA must incorporate leadership development components, and applicants are encouraged to pursue projects with concrete, measurable metrics for success. New in the FY 2022 RFA, indigenous traditional ecological knowledge is explicitly denoted as an acceptable topic for research, education, or extension projects. The EWD program includes seven Program Area Priorities: (1) Professional Development for Agricultural Literacy; (2) Agricultural Workforce Training at Community Colleges; (3) Food and Agricultural Non-Formal Education; (4) Research and Education Experiences for Undergraduates; (5) Predoctoral Fellowships; (6) Postdoctoral Fellowships; and (7) Special Workforce Development Topics.

Total Funding and Award Size: USDA anticipates making $68 million available for an undetermined number of awards. Application deadlines and individual award amounts vary based on priority area. Additional information on each program is provided below.

- **Professional Development for Agricultural Literacy (PDAL)**
  - This program area aims to support food and agricultural sciences training of K-14 educational professionals.
  - Maximum award amount of $500,000 for three to four years.
  - Full applications are due **September 1, 2022**.

- **Agricultural Workforce Training at Community Colleges (AWT)**
  - This program area aims to expand the food and agricultural workforce through experiential learning or facilitating acquisition of industry skills or credentials at community, junior, or technical colleges.
  - Funding levels and project period vary by type of proposal.
  - Full applications are due **September 15, 2022**.

- **Food and Agricultural Non-Formal Education (FANE)**
  - This program area aims to develop interest and skill in STEM, content creation, and emerging technologies to solicit youth engagement in food and agricultural sciences.
  - Maximum award amount of $750,000 over three to four years.
  - Full applications are due **August 4, 2022**.

- **Research and Education Experiences for Undergraduates (REEU)**
  - This program area aims to promote research and extension competencies among undergraduate students through experiential learning in food and agricultural sciences.
  - Funding levels and project period vary by type of proposal.
  - Full applications are due **August 18, 2022**.

- **Predoctoral Fellowships**
This program area aims to foster future leaders in agricultural sciences, with particular interest in fellows seeking to address sustainable agricultural intensification, agricultural climate adaptation, food and nutrition translation, value-added innovation, or agricultural science policy leadership.

- Maximum award amount of $180,000 for up to three years.
- Full applications are due October 27, 2022.

**Postdoctoral Fellowships**

- This program area aims to develop scientists to advance and become leaders in food and agricultural sciences to solve emerging challenges in agriculture, with the same specific interest areas as predoctoral fellowships.
- Maximum award amount of $225,000 for up to two years.
- Full applications are due September 8, 2022.

**Special Workforce Development Topics – National Extension Clearinghouse for Industry and the Workforce (NECIW)**

- This program area aims to connect regional efforts to develop a national framework for non-formal education and training in food and agriculture, identify gaps in the workforce, and provide solutions to address local and regional workforce challenges.
- Maximum award amount of $10,000,000 for up to five years.
- Full applications are due October 13, 2022.

**Special Workforce Development Topics – Youth Innovators Empowering Agriculture Across America (YEA)**

- This program area aims to support regional partnerships to enhance the system of Positive Youth Development outreach.
- Maximum award amount of $7,850,000 for up to five years.
- Full applications are due June 30, 2022.

**Eligibility and Submission Limitation:** Eligible applicants under this solicitation include but are not limited to: State Agricultural Experiment Stations; colleges and universities, including junior colleges; university research foundations; and other research institutions. Applications from or partnerships with minority-serving institutions, small or mid-sized institutions, or institutions located in Established Program to Stimulate Competitive Research (EPSCoR) states are encouraged. Institutions may not submit multiple applications under this RFA.

**Cost Sharing:** A one-to-one cost share is required for applications, including those that are commodity-specific and those that fail to address research issues in a national context. NIFA may waive the matching requirement for a grant under specific criteria outlined in the RFA.

**Sources and additional information:**

- More AFRI RFA resources are available at [https://nifa.usda.gov/afri-request-applications-resources-0](https://nifa.usda.gov/afri-request-applications-resources-0).

---

**NSF Issues New Strengthening American Infrastructure Solicitation**

*Lewis-Burke Associates LLC – February 18, 2022*

The National Science Foundation (NSF) released an updated solicitation for the Strengthening American Infrastructure (SAI) program, which funds human-centered transformative research around domestic infrastructure. This solicitation follows a 2020 Dear Colleague Letter (DCL) announcing the first SAI funding opportunity. This program continues to be a priority for the Social, Behavioral and Economic Sciences (SBE) Directorate, which leads the competition with support from seven additional NSF
directorates. Proposals should bring together experts from one or more of the SBE science disciplines with experts across other scientific disciplines to generate “fundamental knowledge about human reasoning and decision-making, governance, and social and cultural processes enables the building and maintenance of effective infrastructure that improves lives and society and builds on advances in technology and engineering.”

For this solicitation, NSF states that the infrastructure focus of the proposed research may be of any kind, “including physical, cyber, biological, technological, social, economic, or educational.” Proposals should focus on infrastructure that produces broad societal impact, such as those that support “transportation, energy, water, information, computing, national security, buildings, conservation, and commerce.” In addition, areas that present the greatest societal challenges are of special interest, including “equitable access to and benefit from infrastructure, sustainability, climate impact and disaster mitigation, economic resilience, emerging technologies, and future safety, productivity, and security for all citizens.”

NSF emphasizes that proposals must identify a “specific, focal, and well-defined infrastructure.” In addition, proposals must build on a deep understanding of at least one SBE science relevant to the design, development, or sustainability of focal infrastructure. These sciences may include those of “human cognition, perception, information processing, decision-making processes, social and cultural behavior, legal frameworks, governmental structures,” and other areas of SBE science supported across the directorate’s programs. In particular, NSF encourages proposals to include consideration of modeling approaches of both the underlying human processes and identified infrastructure. Submitted proposals must be grounded in “user-centered concepts and offer the potential to substantially improve, strengthen and transform the design, development, use, deployment, cost-effectiveness, sustainability, and maintenance of American infrastructure.” NSF plans to support SAI Planning Grants (SAI-P), SAI Research Grants (SAI-R), and SAI Conference Grants (SAI-C).

Additionally, NSF encourages proposals that include efforts to broaden participation of underrepresented groups in STEM and underrepresented regions in the development and conduct of the research. Proposals from MSIs are highly encouraged, as are opportunities for participation by undergraduate and graduate students and postdoctoral fellows, K-12 students, industry stakeholders, and others.” Public-private partnerships can also be proposed.

**Due Dates:** Full proposal submissions are due May 5, 2022.

**Award Information:** NSF anticipates 35 total awards with up to 10 planning grant awards, up to 15 research grants awards, and up to 10 conference awards. The total anticipated funding amount is $10 million. SAI-P may be requested for a total budget not to exceed $150,000 and for a period of up to one year. SAI-R grants may be requested for a total budget not to exceed $750,000 and for a period of up to three years. SAI-C grants may be requested for a total budget not to exceed $50,000 and for a period of up to one year.

**Eligibility:** Institutions of higher education and non-profit, non-academic organizations are eligible to apply to this solicitation. An individual may appear as PI, co-PI, senior personnel, or consultant on only one proposal submitted in response to the solicitation.

**Sources and Additional Information:**

- The SAI program page is available at: [https://beta.nsf.gov/funding/opportunities/strengthening-american-infrastructure-sai-1](https://beta.nsf.gov/funding/opportunities/strengthening-american-infrastructure-sai-1)
- A list of SBE program areas can be found at: [https://www.nsf.gov/funding/programs.jsp?org=SBE](https://www.nsf.gov/funding/programs.jsp?org=SBE)
NSF Releases Pathways to Enable Open-Source Ecosystems Solicitation

Lewis-Burke Associates LLC – February 15, 2022

The National Science Foundation (NSF) has released a new solicitation titled “Pathways to Enable Open-Source Ecosystems (PEOSE)” which aims to “harness the power of open-source development for the creation of new technology solutions to problems of national and societal importance.” PEOSE will fund new organizations to manage open-source ecosystems (OSEs), with each owning the development and maintenance of the infrastructure required to effectively operate an OSE based around a specific open-source product or class of products. The overarching goal is to increase the availability and coordination of open-source products, such as software, hardware, or data platforms, and developer contributions to accelerate innovation in areas of societal/national importance.

PEOSE will support managing organizations to create and grow sustainable high-impact OSEs around already-developed open-source research products. PEOSE will not support the development of open-source products nor existing well-resourced open-source communities and ecosystems. PEOSE is a cross(NSF activity involving all research directorates and, therefore, projects may cover any area of research supported by NSF.

This solicitation is part of NSF’s broader focus on innovation. The program page notes that while existing NSF programs, including the NSF Innovation Corps (I-CorpsTM), Partnerships for Innovation (PFI), and Small Business Innovation Research and Small Business Technology Transfer (SBIR and STTR) support the translation of basic research into new technology ventures, PEOSE will support the translation of research results into OSEs.

PEOSE will support Phase I and Phase II awards:

- **Phase I: OSE Scoping Proposals** – Enable scoping activities and team formation that could lead to a Phase II proposal. Phase I proposals should describe the current context, long-term vision, and potential impact of the proposed OSE. Phase I projects will be supported up to $300,000 for one-year.

- **Phase II: OSE Development Proposals** – Support the transition of an open-source research product into a sustainable and robust OSE. Phase II proposals will be community-driven and include a detailed project plan. Proposals must also include a community engagement plan to ensure the successful development and maintenance of the technology and identifies users to adopt the technology. Phase II projects will be supported at $1.5 million for up to two-years.

NOTE: Phase I awards are not required for the submission of a Phase II proposal.

**Due Date:** Phase I proposals are due May 12, 2022. Phase II proposals are due October 21, 2022.

**Eligibility:** This solicitation is open to Institutions of Higher Education (IHEs); Non-profit, non-academic organizations; For-profit organizations; and State and Local Governments. There are no restrictions on the number of proposals submitted by individual institutions or PIs. The solicitation states that the “PEOSE program seeks broad and diverse representation of PIs and organizations.”

**Total Funding and Award Size:** NSF plans to award up to 20 Phase I awards of up to $300,000 for one-year, and 10 Phase II awards of up to $1.5 million for up to two-years.

Sources and additional information:
The program page for the PEOSE program is available at https://beta.nsf.gov/funding/opportunities/pathways-enable-open-source-ecosystems-peose.


**NSF Louis Stokes Alliances for Minority Participation invites Proposals for National Coordination Hub and Community Resource Centers.**

*Lewis-Burke Associates LLC- April 14, 2022*

The National Science Foundation (NSF) Louis Stokes Alliances for Minority Participation (LSAMP) program is soliciting proposals for an LSAMP National Coordination Hub and to establish several new Louis Stokes Community Resource Centers (LSCRCs). The LSAMP program seeks to diversify the future U.S. STEM workforce by funding minority serving institutions (MSIs), institutions of higher education (IHEs), and alliances between MSIs and institutions of higher education, as well as alliances that are committed to implementing evidence-based practices to broadening participation in STEM. The LSAMP Hub and LSCRCs act to enhance LSAMP’s existing work by strengthening partnerships across the LSAMP community and developing community-based activities.

Since 2017, LSAMP has supported nine Louis Stokes Regional Centers of Excellence in Broadening Participation (LSRCs) which serve as regional hubs for innovation in STEM and broadening participation. LSRCs, along with other LSAMP programs, have created a significant number of alliances and LSAMP sees a need for increased LSAMP community development. Through this new solicitation NSF aims to:

1. **Increase opportunities in support of developing a diverse STEM workforce;**
2. **Increase opportunities that pertain to national priorities and to NSF’s high priority research areas;**
3. **Support the development and efficacy of LSAMP alliances;**
4. **Strengthen connections and provide resources to the LSAMP community; and**
5. **Support partnerships among both LSAMP and non-LSAMP organizations.**

The LSAMP Coordination Hub will support LSAMP community building and fortify existing collaboration through coordinating all existing LSAMP activities, including alliances, LSRCs, and the new LSCRCs. The goal of the LSCRCs is to facilitate research, development, and dissemination of broadening participation policies and practices, as well as national STEM priorities in emerging sciences. Unlike LSRCs, which are regionally focused, LSCRCs will foster communication across the entire LSAMP community. Each LSCRC will target a topic centered around diversifying the national STEM workforce while meeting national priorities in emerging sciences. Unlike, LSAMP alliances, the Coordination Hub and LSCRCs will not directly develop or implement institutional programs but will support existing LSAMP programs and alliances in reaching project goals.

Proposals for the LSAMP Coordination Hub should demonstrate how it will meet the following goals:

- **Enhance communication throughout the LSAMP grantee network through “conferences, workshops, and electronic communication;”**
- **Broadcast LSAMP project outcomes through greater outreach to non-LSAMP entities;**
- **Increase overall influence of LSAMP activities;**
- **Coordinate with other existing NSF centers, especially the INCLUDES network; and**
- **Collaborate with the entire LSAMP community, including small projects.**

Competitive proposals will include a diverse team of individuals and organizations, as well as address LSAMP community engagement, and identify strategic partnerships between the LSAMP community and non-LSAMP organizations.
LSCRC proposals should identify a specific topic or theme that will develop the future STEM workforce while focusing on national priorities centered around emerging sciences. The goals of LSCRCs are to:

- Facilitate innovative broadening participation and STEM education activities for LSAMP populations;
- Further knowledge in emerging sciences that will prepare LSAMP students for “21st century careers”; and
- Foster partnerships between LSAMP alliance and non-alliance organizations that support LSAMP focus areas.

The most competitive LSCRC proposals will address or include:

- Evidence-based or culturally relevant practices;
- Implementation pathway for its chosen theme;
- Engage LSAMP stakeholders; and
- Establish partnerships that genuinely support the LSCRC’s activities.

LSCRCs will be led by IHEs and are required to build partnerships with at least one of the following entities: research organizations, Science & Technology (S&T) centers, national laboratories, industry, private foundations, or professional STEM societies/organizations. Ideally, the partnership should consist of majority-and minority-serving institutions, including community colleges.

**Eligibility:** NSF welcomes invitations from relevant scientists and institutions. While there are no restrictions on who can act as a principal investigator (PI), institutions are limited to serve as lead on LSAMP Coordination Hub proposal, or LSCRC proposal. An individual may serve as PI or co-PI on one LSAMP National Coordination Hub or LSCRC proposal. More eligibility information is provided in the full solicitation and in Chapter I.E. of the NSF Proposal & Award Policies & Procedures Guide.

**Deadline:** Proposals for the LSAMP National Coordination Hub are due by 5:00 PM on January 9, 2023, in the submitter’s local time. Proposals for LSCRCs will be accepted until 5:00 PM on January 9, 2023, and June 1, 2023, in the submitter’s local time.

**Award Information:** Up to $5 million (up to $1 million per year over five years) will be awarded for the National Coordination Hub, as a cooperative agreement. NSF anticipates awarding $3.5 million in continuing grants ($700,000 per year for three to five years) for three to five projects to act as LSCRCs.

**Sources and Additional Information:**

- The full solicitation for the LSAMP Coordination Hub and LSCRCs can be found at: https://www.nsf.gov/pubs/2022/nsf22584/nsf22584.htm?WT.mc_ev=click&WT.mc_id=USNSF_29&utm_medium=email&utm_source=govdelivery#elig.

**DOD Releases FY 2023 Multidisciplinary University Research Initiative (MURI) BAA**

*Lewis-Burke Associates LLC – February 11, 2022*

The Department of Defense (DOD) released a broad agency announcement (BAA) for the fiscal year (FY) 2023 Multidisciplinary University Research Initiative (MURI). Initiated over 25 years ago, MURI remains one of the most popular programs among researchers at institutions of higher education and stands as the benchmark for building a defense-oriented research capability on campus. With the goal of understanding and achieving revolutionary breakthroughs on behalf of the warfighter, each MURI program is managed closely by a program manager from one of the Services supporting high-risk basic research in science, economic growth, and military technology.

The Army, Navy, and Air Force basic research offices have released 24 topics this year. Like previous years, the FY 2023 topics have an emphasis on materials and quantum sciences, but also a focus on issues
related to climate. FY 2023 MURI topics include:

**Army Research Office (ARO)**

1. Integrated Bio-Hybrid Actuators
2. Neuro-Inspired Distributed Deep Learning (NIDDL)
3. Chemical and Microbial Indicators of Permafrost Degradation from Changes in Climate
4. Dynamically Tunable and Enhanced Thermal Conductivity in Polymeric Materials
5. The Stranger Within: The Ecology of the Brain
6. Control Theory for Novel Quantum Error Correction
7. Emergent Refractory Behaviors in Earth and Extraterrestrial Materials

**Office of Naval Research (ONR)**

8. Supremacy over Quantum: Efficient Real-World Optimization on Stochastic Binary Networks
9. Identifying the Fundamental Properties of Biological Soft Structures Subjected to High Hydrostatic Pressure that Preserve Structural and Functional Integrity of Deep-Sea Organisms
10. Advance Mixed-Precision and Deep Learning Algorithms for Computation of Multiscale-Multiphysics and Optimization Models
11. Fundamental Processes in Solid-Fuel Combustion
12. Climate Change Risk and Decision Superiority
14. Building Overall Cognitive Capability through Attention Control
15. Assessing the Role of Marine Biology in Driving Ocean Mixing Using Autonomous Sampling of Microstructure and eDNA (BIOMIX)
16. Spatially Programmed Material Properties via Designed Meso-Structures
17. Excited State Chemistry of Preceramic Polymers

**Air Force Office of Scientific Research (AFOSR)**

18. Fluid-(Sub-) Surface Material Interactions for Passive Flow Control
19. Quantum Spin Effects in Chiral Matter
20. Cognitive Security
21. Open Hybrid Dynamical Systems: Compositions, Invariants, and Computation
22. Dislocations as One Dimensional Quantum Matters
23. Quantum Phononics
24. Fundamental Limits of Nanoscale X-ray Microscopy in Radiation Sensitive Materials

DOD encourages faculty to engage with the Research Topic Chiefs assigned to each topic area (see section II.H) through the white paper process to assess the feasibility of proposed topics. Topics listed above describe the focus areas important to each Service and are not meant to restrict the possible directions awarded research could take.

**White Papers:** While not required, prospective awardees are strongly encouraged to submit white papers before 11:59 PM Eastern Time on May 16, 2022, to minimize the labor and cost associated with the production of detailed full proposals.

**Timeline for Submission:**

- Questions on eligibility and technical requirements are due by **May 2, 2022**
- White papers are due **May 16, 2022, by 11:59 PM ET**
- Notifications of initial evaluations of white papers are expected on **June 13, 2022**
- Questions for Grants Officer on proposal submission are due by **August 26, 2022, by 11:59 ET**
- Full proposals are due on **September 9, 2022, by 11:59 PM ET**
Notification of selection for awards are expected to be made on **February 1, 2023**

Grants are estimated to start on **April 1, 2023**

**Total Funding and Award Size:** DOD expects $190 million to be made available for five years, pending out-year appropriations. Typical individual awards range from $1.25 to $1.5 million, per year.

**Eligibility and Limitations:** The competition is open to U.S. institutions of higher education, including DOD institutions of higher education, with degree-granting programs in science and or engineering. A University Affiliated Research Centers (UARC) is an eligible applicant, if it is affiliated with a U.S. institution of higher education and not Federally Funded Research and Development Center. While industry, DOD laboratories, and foreign universities may not receive funding, DOD encourages universities to collaborate with entities focused on applied and transitional research for potential commercial applications of MURI-funded research.

**Sources and Additional Information:**

- Additional information on DOD’s university-focused basic research efforts, including MURI, can be found by visiting the following Services’ websites:

**DOD Releases FY 2023 DURIP BAA**

Lewis-Burke Associates LLC – February 7, 2022

The Department of Defense (DOD) released a broad agency announcement (BAA) for the fiscal year (FY) 2023 Defense University Research Instrumentation Program (DURIP) competition. DURIP, an annual program under DOD’s University Research Initiative (URI), provides acquisition funding for equipment and instrumentation used to support defense-related research activities. DURIP funding supports the purchase of major, state-of-the-art equipment (from $50,000 to $1.5 million) that augments current research institutions’ capabilities or develops new capabilities to perform cutting edge defense research in disciplines of importance to DOD. According to DOD, DURIP funding is not appropriate for the construction or modification of buildings, building support systems, fixed equipment (i.e. clean rooms or fume hoods), general-purpose computing facilities, or purely instructional equipment, as well as salaries of faculty, postdoctoral associates, or students. DURIP remains an extremely competitive funding program with the decline in similar instrumentation programs across federal agencies. For FY 2022, DOD awarded $46 million dollars in awards to 144 university researchers at 81 institutions in 35 states.

As in previous years, the Army Research Office (ARO), Office of Naval Research (ONR), and the Air Force Office of Scientific Research (AFOSR) jointly support the solicitation, which is issued in cooperation with the Office of the Director of Basic Research in the Office of the Secretary of Defense. DOD recommends that proposers review each Service branch’s research interests contained in recent long-range BAAs to align proposals with stated DOD research needs. Proposals must address research of interest to one or more Services and may be submitted to more than one Service for consideration. While
an application may be submitted to multiple Services, funding can only be received from one. DOD encourages interested researchers to contact the appropriate program managers relevant to their field to discuss the relevance of proposed ideas.

In addition to research efforts, DURIP emphasizes related educational enhancement and requires proposals to address how DURIP funding would strengthen educational opportunities for students in DOD-relevant fields.

Lewis-Burke also recommends that proposers identify how research efforts supported by the instrumentation align with current DOD Research and Engineering (R&E) priorities, including but not limited to:

- Hypersonics
- artificial intelligence/machine learning
- quantum science and computing
- microelectronics
- 5G and beyond

Additional insight on DOD’s research and engineering priorities, especially emerging and critical technology areas, can be found in the recently published USD(R&E) Technology Vision for an Era of Competition.

**Question Submission Deadline:** Questions to respective program managers concerning the BAA are encouraged and must be submitted by **April 22, 2022.** Appropriate points of contact can be found in each of the Service’s respective BAAs.

**Full Proposal Deadline:** Full proposals should be submitted no later than **May 13, 2022 at 11:59 PM ET.**

**Total Funding and Award Size:** DOD anticipates awarding approximately $48 million under the FY 2023 DURIP competition, with individual awards ranging from $50,000 to $1.5 million. Awards are typically for one year. Note: This program will be supplemented by additional funding from the Defense Established Program to Stimulate Competitive Research (DEPSCoR). DEPSCoR-eligible applicants should indicate their DEPSCoR status in their DURIP application.

**Eligibility:** The competition is open to accredited U.S. institutions of higher education with degree-granting programs in science, mathematics, or engineering.

**Sources and Additional Information:**

- The full FY 2023 DURIP solicitation issued by each military Service is available at [www.grants.gov](http://www.grants.gov) under funding opportunity number “FOA-AFRL-AFOSR-2022-0001” (Air Force), “W911NF-22-S-0008” (Army), and “N00014-22-S-F004” (Navy).
- The Long Range Broad Agency Announcement for Navy and Marine Corps Science and Technology can be found on ONR’s website or at [www.grants.gov](http://www.grants.gov) by searching for “N00014-21-S-B001.”
- The research interests of the Army Research Office can be found in their Broad Agency Announcement [here](http://www.grants.gov).
- The research interests of the Air Force Office of Scientific Research can be found in their Broad Agency Announcement [here](http://www.grants.gov).
- The USD(R&E) Strategic Vision and Critical Technology areas can be found [here](http://www.grants.gov).

**NIH Biomedical Research Infrastructure**
The Biomedical Research Facilities program uses the C06 funding mechanism to provide support for

The National Institutes of Health (NIH) has released several solicitations through the Office of Research Infrastructure Programs aimed at funding the construction, renovation, and modernization of biomedical research spaces. Using the C06 mechanism, NIH will fund biomedical research facilities construction grants, and using the S10 mechanism, NIH will fund shared instrumentation grants. Details about these related opportunities can be found below.

Biomedical Research Support Shared Instrumentation Grants (S10 Program)

The S10 Instrumentation Programs support the purchase of state-of-the-art shared research instruments that are typically too expensive for an individual investigator to obtain using a research project grant. Examples of instruments that can be purchased using S10 funding include X-ray diffraction systems, nuclear magnetic resonance and mass spectrometers, DNA and protein sequencers, biosensors, confocal and electron microscopes, flow cytometers, and biomedical imagers. Three separate programs use the S10 mechanism to support instrumentation needs:

- The Basic Instrumentation Grant (BIG) Program funds instruments in the $25,000 - $250,000 range and is open only to institutions that have not received an S10 award over $250,001 in any of the three preceding fiscal years.
- The Shared Instrumentation Grant (SIG) Program supports instrument purchases in the $50,000 - $600,000 range.
- The High-End Instrumentation (HEI) Grant Program funds instruments in the $600,001 - $2,000,000 range.

For all three grant programs, NIH seeks to support applications that encourage optimal resource sharing among investigators using the supported instrument. Proposals must have at least three identified major users which will benefit from the instrument. Concurrent BIG, SIG, and HEI applications should not be for the same equipment, unless it is part of a campus-wide instrumentation plan, which should be clarified in the application. Multiple applications from a single organization are allowed, provided that they are scientifically distinct.

Deadline: The next upcoming deadline for all three programs is June 1, 2022. Applicants may also plan to submit for additional deadlines in June 2023 and June 2024.

Award Information: As FY 2022 appropriations remain unfinished at the time of these solicitations’ publication, NIH has not announced the total number of awards or overall program budget for these programs. Lewis-Burke will provide more information about the status of FY 2022 appropriations for NIH as well as any details on funding levels for this program as the congressional appropriations process progresses.

Eligibility: Any public or private institution of higher education or non-profit research institution is eligible to apply for any of the three grant opportunities. The BIG Program is a limited competition for institutions that have not received S10 instrumentation funding over $250,001 in the previous three fiscal years.

Sources and Additional Information:

• The HEI Grant Program solicitation is available at https://grants.nih.gov/grants/guide/pa-files/PAR-22-079.html.
• A list of Frequently Asked Questions about the S10 instrumentation programs can be found at https://orip.nih.gov/construction-and-instruments/s10-instrumentation-programs/frequently-asked-questions-shared-and-high.

**DOE Funding Opportunities**

**Upcoming Funding Opportunities**

$20 million for Artificial Intelligence and Machine Learning (AI/ML) Research and Development for HEP

• Priority topics are likely to include advancing AI/ML capabilities for more efficient processing of large data sets, modeling and mitigation of systematic uncertainties, high-throughput data selection, real-time data classification, and improved operations of particle accelerators and detectors.

$12 million for the Nuclear Data Interagency Working Group Research Program

• DOE plans to support research projects using nuclear data and improving databases for users supported by Nuclear Physics, the Isotope Program and the National Nuclear Security Administration Office of Defense Nuclear Nonproliferation Research and Development.
• Research opportunities usually cover nuclear physics basic science, nuclear energy applications, non-proliferation and nuclear security applications, and other associated applications in radiation protection, planetary, and space-based science.
• DOE plans to make up to 20 awards averaging $350,000 a year over three years.

$7 million for Quantum Information Science Research and Innovation for Nuclear Science

• This would support research that would have a transformative impact on the nuclear physics mission area and/or advance quantum information science development enabled by nuclear physics-supported science, technologies, and laboratory infrastructure.
• Topics are likely to include quantum computation, quantum simulations and simulators, quantum sensing, nuclear physics detectors, nuclear many-body problem, ‘squeezed’ quantum states, entanglement at collider energies, and lattice gauge theories as well as novel areas of basic research.

$7 million for Research and Development of Next Generation Nuclear Physics Accelerator Facilities

• DOE will support research and development efforts for accelerator systems of relevance to current or next generation NP accelerator facilities.
• Topics usually include accelerator research and development that significantly advances state-of-the-art accelerator capabilities for next generation machines for the study of nuclear physics, for improving the performance of existing facilities studying nuclear physics, or SRF technology.
• DOE plans to make up to 10 awards typically ranging from $500,000 to $1 million for two years.
• DOE awards are expected to be up to five years with a second five-year renewal and awards range from $1 million to $2 million.

$5 million for DOE Traineeships in High Energy Physics for Computation
In the last two years, HEP has funded graduate traineeship programs in accelerator physics and technology and instrumentation. The focus this year is to build expertise in computational tools, data management and analytics, and simulation techniques to advance HEP programs.

DOE awards to a university or consortia of universities would support tuition, stipend, and travel costs for students enrolled in specific academic programs aimed at training graduate students in computational techniques needed for HEP programs, and provide some support for curriculum development and program administration.

**ARPA-E Programs:** February-August 2022

ARPA-E is preparing to release various clean energy technology program solicitations in various topic areas, including:

- Mineralization of atmospheric carbon for sequestration and enhanced metals recovery (expected January 2022),
- Industrial decarbonization technologies for iron and steel production,
- High-energy, fast charging batteries for electric vehicle applications, and
- High-efficiency cooling for data centers.

**$8 billion for Hydrogen Hubs: May 2022**

DOE plans to release an $8 billion funding solicitation to compete up to eight regional clean hydrogen hubs by May 15, 2022.

- DOE then plans to make awards no later than May 15, 2023. DOE has five years (from FY 2022 through FY 2026) to spend the $8 billion, which means approximately $1 billion over five years for each hub.
- A hydrogen hub is defined as a network of clean hydrogen producers, potential clean hydrogen consumers, and connective infrastructure located in close proximity. The hub must meet all three goals:
  1. Demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen (all components must be included);
  2. Demonstrably aid in the achievement of the clean hydrogen production standard, which is defined as hydrogen produced with a carbon intensity equal to or less than two kilograms of carbon dioxide-equivalent produced at the site of production per kilogram of hydrogen produced; and
  3. Can be developed into a national clean hydrogen network to facility a clean hydrogen economy.

- The infrastructure bill that funded these hubs sets out specific criteria DOE must use to select hubs, including:
  - **Feedstock diversity:** At least one regional clean hydrogen hub that demonstrates production of clean hydrogen from
    - fossil fuels,
    - renewable energy, and
    - nuclear energy.
  - **End-use diversity:** At least one regional clean hydrogen hub that demonstrates the end-use of clean hydrogen in
    - the electric power generation sector,
    - the industrial sector,
    - the residential and commercial heating sector, and
    - the transportation sector.
- **Geographic diversity**: The hubs should be located in different regions of the country and shall use the energy resources abundant in that region.

- **Hubs in natural-gas producing regions**: At least two hubs should be located in regions of the country with the greatest natural gas resources.

- **Employment**: Priority should be given to hubs that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents in the region.

---

**Federal Opportunities for Minority-Serving Institutions**

*February 14, 2022*

This document provides an overview of federal opportunities specifically available to Minority-Serving Institutions (MSIs), which are United States higher education institutions based on historical origin or percentage of minority students enrolled. Programs described below are likely of interest to various Hispanic-Serving Institutions (HSIs), Historically Black Colleges and Universities (HBCUs), and Tribal Colleges and Universities (TCUs), among other MSIs.

This document only includes programs either currently or previously funded by Congress and omits those that have been authorized but have not received appropriations. Some pieces of legislation currently being negotiated in Congress, such as the *Build Back Better Act*, include new MSI-focused programs but have yet to be authorized or appropriated. Lewis-Burke will continue updating clients on new opportunities in this space as they are created and applications are solicited.

**Department of Education (ED)**

The **HSI Division of the Department of Education (ED)** offers three grant programs. An HSI designation is granted by ED when an institution has 25 percent of its undergraduate full-time students identifying as Hispanic.

The **Strengthening Historically Black Colleges and Universities Division** offers several grant programs meant to support undergraduate and graduate education at Historically Black Colleges and Universities (HBCUs) and Predominately Black Institutions (PBIs).

- A full list of funding offered through the Strengthening Historically Black Colleges and Universities Division is available at [https://www2.ed.gov/about/offices/list/ope/idues/index.html](https://www2.ed.gov/about/offices/list/ope/idues/index.html).

**National Science Foundation (NSF)**

Along with advancing the frontiers of research into the future, securing global leadership, and establishing the new Translation, Innovation and Partnerships (TIP) Directorate, ensuring accessibility and inclusivity is one of the core pillars of NSF Director, Dr. Sethuraman Panchanathan’s (Panch), vision for NSF. NSF and its governing body, the National Science Board (NSB), continue to convene discussions and workshops to examine NSF programs, policies, and procedures to increase the agency’s activities around broadening participation and the diversity of the NSF research and education community. As well as programs to support MSIs, NSF continues to establish new programs to promote broadening participation to increase participation of individuals traditionally underrepresented in STEM. Many NSF solicitations, particularly center-level competitions encourage participation from MSIs.

- **Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)** – This program aims to strengthen undergraduate STEM education and research at HBCUs to broaden participation in the
Sources:

STEM workforce. Support is available through several tracks including Targeted Infusion Projects (TIP); Broadening Participation Research (BPR) in STEM Education projects; Research Initiation Awards (RIA); Implementation Projects (IMP); Achieving Competitive Excellence (ACE) Implementation Projects; Broadening Participation Research Centers (BPRC); and Other Funding Opportunities include EArly-Concept Grants for Exploratory Research (EAGER), Rapid Response Research (RAPID), conference, and planning grants. Preliminary proposals are due March 22, Letters of Intent are due July 26 and September 12, with full proposals due October 4, 2022, for RIAs, November 10, 2022, for TIP, BPR, IMP, ACE, and November 22, 2022, for BPRC (and annually thereafter). More information is at https://beta.nsf.gov/funding/opportunities/historically-black-colleges-and-universities-undergraduate-program-hbcu.

- **Centers of Research Excellence in Science and Technology (CREST) and HBCU Research Infrastructure for Science and Engineering (RISE)** – CREST provides support to enhance the research capabilities of MSIs through the establishment of centers that integrate education and research. The HBCU-RISE program supports the expansion of institutional research capacity and the production of doctoral students at HBCUs, especially those from groups underrepresented in STEM. CREST and HBCU-RISE support a range of project types. Letters of intent are due annually in December with full proposals due in February for HBCU-RISE and December for CREST. Next year, it is expected that full proposals for CREST will be due December 2, 2022 and full proposals for HBCU-RISE will be due no later than February 9, 2023.


- **Tribal Colleges and Universities Program (TCUP)** – TCUP supports Tribal Colleges and Universities, Alaska Native-serving institutions, and Native Hawaiian-serving institutions to promote high-quality STEM education, research, and outreach. TCUP supports a range of project types with annual deadlines in April, June, September, and December. Source: https://beta.nsf.gov/funding/opportunities/tribal-colleges-and-universities-program-tcup.

**National Endowment for the Humanities (NEH)**

- **Humanities Initiatives at Hispanic-Serving Institutions/Historically Black Colleges and Universities/ Tribal Colleges and Universities** – These annual grants fund humanities education and teaching through the improvement or creation of new programs or resources at HSIs/HBCUs/TCUs. Humanities Initiatives (HI) program opportunities are also available for HBCUs/MSIs and non-MSIs under the HI at Colleges and Universities and the HI at Community Colleges programs. Projects should focus on a core theme or topic area in the humanities. Supported activities include curriculum development, student enrichment, faculty development, and partnerships. Of the last five years, the Humanities Initiatives at HSIs program has funded 13 percent of applicants annually. The Humanities Initiatives at HBCUs program has funded 15 percent of applicants and the Humanities Initiatives at Tribal Colleges has funded 23 percent of applicants annually. Applications for this year’s competitions are due on May 9, 2022. For those interested, NEH offers prerecorded webinars and a live Q&A session as well as the option to submit a draft concept for review.

Sources:

- Humanities Initiatives at Hispanic Colleges and Universities - https://www.neh.gov/grants/education/humanities-initiatives-hispanic-serving-institutions
Awards for Faculty at Hispanic-Serving Institutions/Historically Black Colleges and Universities/Tribal Colleges and Universities – These awards support individual faculty and staff members employed or retired from HSIs/HBCUs/TCUs who are pursuing research of interest to the humanities. The model is intentionally flexible; applicants can determine the type of research and the audience. Previous projects have included written articles, translations, monographs, and digital materials, among others. Of the last five years, the Awards for Faculty programs averaged 143 applications per year, of which approximately 12 percent were funded. The next application deadline is April 13, 2022.

Sources:
- Awards for Faculty at Hispanic Colleges and Universities - https://www.neh.gov/grants/research/awards-faculty-hispanic-serving-institutions
- Awards for Faculty at Historically Black Colleges and Universities - https://www.neh.gov/grants/research/awards-faculty-historically-black-colleges-and-universities
- Awards for Faculty at Tribal Colleges and Universities - https://www.neh.gov/grants/research/awards-faculty-tribal-colleges-and-universities

United States Department of Agriculture (USDA)

MSIs are eligible to apply for competitive grant programs at USDA. In addition, there are specific programs designated for 1890s Historically Black Land-Grant Colleges and Universities, 1994 Tribal Land-Grant Colleges and Universities, insular areas, Alaska Native-Serving Institutions, and Native Hawaiian-Serving Institutions.

- USDA also designates the status of Hispanic-Serving Agricultural Colleges and Universities (HSACU) to institutions offering accredited agriculture-related programs where at least 25 percent of the institution’s full-time student enrollment is Hispanic. HSACU status offers access to an endowment, equity grants, institutional capacity-building grants, applied research grants, and extension grants. An 1862 land-grant institution cannot qualify as an HSACU.


- USDA’s Hispanic-Serving Institutions National Program is a program that aims to foster partnerships between USDA and HSIs to “provide increased professional development, workforce development, and exposure opportunities for faculty, staff, and students.” Specifically, the program offers a variety of internship opportunities, engages in outreach to HSIs, and provides scholarships and fellowships.

Source: https://www.usda.gov/partnerships/hispanic-serving-institutions.

- Department of Defense Research and Education Program for Historically Black Colleges and Minority-Serving Institutions (HBCU/MSI) – The purpose of the Education Program is to increase research and engineering capacity related to national defense and the number of minority graduates from STEM fields. Successful applications will connect to DOD priorities and current research activities including, but not limited to artificial intelligence, cyber, biotechnology, quantum, materials science, or Fully Networked Command, Control and Communications (FNC3). Applications are accepted on a rolling basis with a current closing deadline of April 30, 2024.

Source: https://www.grants.gov/web/grants/view-opportunity.html?oppId=316548

Department of Homeland Security (DHS)

- Centers of Excellence – The Centers of Excellence program, DHS’ flagship program for universities,
focus on supporting the development of a diverse biomedical research workforce. Competitions are infrequent but encourage applicants to form partnerships with MSIs on research and education programs. When a new competition is announced, MSIs are encouraged to seek to lead centers or form partnerships with interested consortia.

Source: https://www.dhs.gov/science-and-technology/centers-excellence

- **MSI Program** – Through the MSI Program, DHS works to develop a diverse talent pool to bolster the Homeland Security Enterprise workforce. This program supports qualified university students and faculty through the following initiatives:

  - **DHS Summer Research Team Program for MSIs** – DHS’s Science and Technology Directorate’s Office of University Programs sponsors this program to bring faculty and students from MSIs to conduct research at DHS Centers of Excellence (Centers). Research must relate to homeland security science, mathematics, and engineering priorities. The research focus areas for this year include border and maritime security, chemical and biological defense, critical infrastructure and resilience, cybersecurity, explosives, and first responders.

  - **DHS Scientific Leadership Award Program** – This program supports the development of homeland security science and engineering teaching initiatives, curriculum development, and scholarships at MSIs. According to DHS, “these awards support the development of enduring educational and research capabilities within the MSI communities, which include Historically Black Colleges and Universities, Hispanic Serving Institutions and Tribal Colleges and Universities. Each Scientific Leadership Award recipient is required to partner with a COE.” Additional information on both programs within the MSI Program can be found at https://www.dhs.gov/science-and-technology/minority-serving-institutions-program.

**National Institutes of Health (NIH)**

The NIH only has a few programs explicitly focused on MSIs, however, there are additional programs that focus on supporting the development of a diverse biomedical research workforce.

- **National Institute of Minority Health and Health Disparities (NIMHD) Research Centers in Minority-Serving Institutions (RCMI)** – NIMHD’s Research Centers in Minority Serving Institutions (RCMI) program seeks to expand the research infrastructure and capabilities at doctorate-awarding institutions serving a significant percentage of minority groups underrepresented in biomedical science. The program includes grants (eligibility varies) in health sciences and/or health professions.

  Source: https://nimhd.nih.gov/programs/extramural/research-centers/rcmi/index.html

- **RCMI Specialized Centers** – The goal of this program is to provide support through a cooperative agreement to institutions that offer doctoral degrees in the health professions or health-related sciences and have a historical and current commitment to educating underrepresented students. The purpose of RCMI Centers is to enhance institutional research capacity and to support research that advances minority health and eliminates health disparities. The current solicitation is closed but we anticipate this program will be re-竞争ed.


- **Individual Predoctoral National Research Service Award (NRSA) F31 Diversity Fellowships (NIHwide)** – This individual predoctoral fellowship provides funding to promote diversity in health-related research by supporting the research training of predoctoral students from diverse backgrounds (see Notice of NIH’s Interest in Diversity). This funding opportunity follows standard due dates for fellowship grants at

NIH. The next due date is **April 8, 2022.**


- **Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC) Postdoctoral Career Transition Award to Promote Diversity (K99/R00)** — The MOSAIC program is a part of NIH’s efforts to improve diversity within the biomedical research workforce by supporting the transition of postdoctoral researchers from diverse backgrounds (see Notice of NIH’s Interest in Diversity) to independent research positions at research-intensive institutions. Applicants must have no more than 4 years of postdoctoral research experience at the time of application. This funding opportunity follows standard due dates for research career development grants at NIH. The next due date is **June 12, 2022.**


- **Research Supplements to Promote Diversity in Health-Related Research (NIH-wide Administrative Supplement)** — This program provides funding to improve the diversity of the research workforce by recruiting and supporting students, postdoctoral fellows, and other eligible investigators from groups that have been shown to be underrepresented in health-related research. This supplement opportunity is available only to investigators already holding an NIH grant. Applications are typically accepted on a rolling basis and dependent upon Institute/Center.


- **National Institute of General Medical Sciences (NIGMS) — Baccalaureate Programs**

  - **Post-Baccalaureate Research Education Program (PREP)** — This program supports institutions that promote minorities with baccalaureate degrees to pursue a research doctorate in the biomedical sciences. The award provides institutional support to provide extensive research training through 1-to-2-year apprenticeships. Ultimately, the PREP Awards should help to diversify research-intensive institutions’ doctorate programs. This is a longstanding program at the NIH and we anticipate a new solicitation to be released soon for awards in 2023.

    *Source: [https://www.nigms.nih.gov/training/PREP](https://www.nigms.nih.gov/training/PREP)*

  - **National Institute of General Medical Sciences (NIGMS) Maximizing Access to Research**

    **Careers (MARC) (T34)** — The objective of this program is to develop a diverse pool of undergraduates who then complete doctoral degrees in the biomedical sciences. The program is limited to proposals from research-intensive institutions (i.e. those institutions with an average of $7.5 million or more in total costs over the last three fiscal years). Applications are due on **May 26, 2022.**


- **National Institute of Biomedical Imaging and Bioengineering (NIBIB) Enhancing Science, Technology, Engineering, and Math Educational Diversity (ESTEEMED) Research Education Experiences (R25)** — The ESTEEMED program aims to “support educational activities that enhance the diversity of the biomedical, behavioral and clinical research workforce.” This program supports educational activities that focus on research experiences and mentoring activities for underrepresented undergraduate freshmen and sophomores in STEM fields related to bioengineering. The next application due date is **June 24, 2022.** This program is open to Institutions of Higher Education; MSIs are encouraged.
Department of Health and Human Services (HHS)

HHS has a multitude of programs aimed at improving minority health outcomes, increasing diversity of the healthcare workforce, and otherwise supporting underrepresented and underserved minorities in healthcare settings. However, there are a limited number of regularly competed funding opportunities or resources that are specifically targeted towards MSIs.

- **HRSA Office of Health Equity** – The Health Resources and Services Administration (HRSA) Office of Health Equity facilitates MSI engagement with the agency. This includes communication about relevant funding opportunities, participation in grant review panels, technical assistance, and other activities. Additional information: https://www.hrsa.gov/about/organization/bureaus/ohe/msis.html

  - HRSA also occasionally releases solicitations specifically targeted towards MSIs, such as the “Building the HIV Workforce and Strengthening Engagement in Communities of Color” Program. However, these programs are usually not competed annually.
  - Other programs at HRSA not specific to MSIs but focused on minority faculty, care providers, or patients include the Area Health Education Centers, the Faculty Loan Repayment Program, the Scholarships for Disadvantaged Students program, and the Centers of Excellence program.

- **Office of Minority Health** – The HHS Office of Minority Health (OMH) funds a variety of awards focused on improving health outcomes among racial and ethnic minority populations. Eligibility for these awards is sometimes restricted to MSIs, and often encourages applicants to be or partner with MSIs. Additional information: https://minorityhealth.hhs.gov/.

Department of Energy (DOE)

DOE is committed to increasing engagement and funding opportunities with Minority Serving Institutions (MSI) and underrepresented groups. The DOE Office of Science has taken the lead in coordinating these efforts and in December 2020, it established a formal working group to lead this effort. Specific actions the group has taken include identifying and developing opportunities to engage MSI faculty in Office of Science-sponsored research funding and increasing the number of applications (and associated proposal success rates) having MSIs as the lead institution submitted to Office of Science-sponsored funding opportunity announcements; developing partnerships to attract and sponsor underrepresented groups in Office of Science-sponsored research; and increasing outreach, engagement, and recruitment of underrepresented students and faculty to Office of Science-sponsored research opportunities at the DOE national laboratories, including those from MSIs.

- **MSI Listening Sessions** — The Office of Science has launched a series of listening sessions at MSIs to seek community input on barriers to participation in Office of Science-sponsored research and opportunities for overcoming those barriers. The listening sessions focused on some key questions, including:
  
  - What aspects or requirements of Office of Science solicitations present barriers to MSI faculty in applying?
  
  - What types of resources or scope elements of a solicitation hold potential to enable MSIs and faculty at MSIs to overcome these barriers?
  
  - How can the Office of Science and DOE National Laboratories better collaborate with academic
research institutions, particularly MSIs, to increase the recruitment, retention, and advancement of underrepresented groups in STEM fields supported by the Office of Science at the undergraduate and graduate level?

- **NNSA Minority Serving Institution Partnership Program** – DOE’s National Nuclear Security Administration provides grants to students of minority-serving institutions in STEM disciplines relevant to nuclear security, nonproliferation, and other emerging science and technology fields of importance to DOE national security missions. NNSA funds minority-serving institutions through consortium-based teams which have access to expertise and capabilities at the NNSA labs and sites. In FY 2021, Congress appropriated $35 million for this program. The next competition is expected in December 2022. 
  
  *Source: [https://www.energy.gov/nnsa/nnsa-minority-serving-institution-partnership-program](https://www.energy.gov/nnsa/nnsa-minority-serving-institution-partnership-program).*

- **Minority Educational Institution Student Partnership Program** — This summer internship program is focused on providing students interested in STEM fields opportunities to work with a mentor from one of the 17 DOE national laboratories, site offices, or DOE Headquarters on scientific research or a focus on policy, business, and government relations. The internship provides financial support, including lodging, round trip airfare, and student stipends. Students gain professional and technical career experience while working side-by-side with an assigned mentor who is a subject matter expert at DOE or the national laboratories. DOE usually releases a request for proposals in January and they are typically due in April.

  *Source: [https://www.energy.gov/diversity/minority-educational-institution-student-partnership-program-meispp-internships](https://www.energy.gov/diversity/minority-educational-institution-student-partnership-program-meispp-internships)*

- **Technical Assistance Workshops** — Upon request, DOE will schedule technical assistance workshops at MSIs to share information about DOE funding opportunities, tips for award winning proposals, and introduce faculty to DOE program managers. In FY 2020, Congress provided $600,000 to DOE to support these outreach activities. *For additional information, call the Office of Economic Impact and Diversity at 202-586-8383.*

**Department of Transportation (DOT)**

- **Federal Aviation Administration: Minority-Serving Institution Intern Program** – This program provides students from MSIs internship opportunities throughout the year in fields including air traffic control, computer science, aviation management, business administration, engineering, and information technology (IT). Students are compensated for travel and given a weekly stipend, as well as academic credit. Only students who are juniors or above are eligible to apply and a 3.0 GPA is required. Internships are offered in Spring, Summer, and Fall, so application deadlines are determined based on the semester being applied for.

  *Source: [https://www.faa.gov/jobs/students/internships/minority/](https://www.faa.gov/jobs/students/internships/minority/)*

- **Federal Highway Administration: Summer Transportation Internship Program for Diverse Groups**— This internship offers currently enrolled college and university students a ten-week paid internship at the Department of Transportation headquarters and in field offices across the country. This internship program is open to all students who are juniors or above, and those with a 3.0 GPA will be given priority. The program is focused on providing opportunities to traditionally underrepresented groups in the transportation sector, such as women and persons with disabilities. Applications for the next internship cycle are expected to be released in early January 2023.

**National Aeronautics and Space Administration (NASA)**
Minority University Research and Education Programs Small Projects – This is a competitive grant program that funds STEM projects at minority-serving institutions by creating “innovative approaches to using NASA-themed content to support higher education teaching and learning.” The target population is students enrolled in a STEM major at a college or university. Awards are provided on a one-year basis but can be renewed for two additional years depending on the program’s success in meeting objectives. Source: https://www.nasa.gov/stem/murep/home/index.html

Department of Commerce (DOC)

Like many other federal agencies, DOC’s interest in supporting diversity, equity, and inclusion, specifically through collaborations with MSIs, has increased tremendously under the Biden Administration. The Economic Development Administration (EDA) recently released its updated investment priorities and among the new additions was equity, specifying the need for projects to impact underserved populations and communities within geographies that have been systemically denied opportunities for economic prosperity. Projects that support MSIs meet this criterion. Additionally, the Minority Business Development Agency (MBDA) was permanently authorized for the first time since its inception through the Infrastructure Investment and Jobs Act (IIJA), and included in that authorization were several efforts to advance partnerships with MSIs. Specifically, the authorization creates rural business centers that are intended to be run by Historically Black Colleges and Universities (HBCUs) and other MSIs and the Parren J. Mitchell Entrepreneurship Education Grant program to generate an entrepreneurial curriculum at HBCUs and MSIs across the nation.

Minority-Serving Institutions Program – The Agency’s Office of Civil Rights operates the program, which works to ensure equal access to all DOC opportunities, contracts and grants, and supports partnerships with MSIs. Source: https://www.commerce.gov/cr/programs-and-services/minority-serving-institutions-msi-program

MBDA Business Centers – MSIs and HBCUs can partner with minority-owned firms seeking to penetrate new markets and scale their business. Source: https://www.mbdagov/mbda-programs

National Oceanic and Atmospheric Administration (NOAA)

José Serrano Educational Partnership Program with Minority-Serving Institutions (EPP/MSI) Cooperative Science Centers – The EPP/MSI Cooperative Science Centers (CSC) are focused on increasing the number of students from underrepresented backgrounds who pursue degrees in fields related to NOAA’s mission. There are currently four CSCs that are led by MSIs but include a consortium of partners including MSI and non-MSI institutions. In addition to the centers, the program also offers a scholarship program for interested undergraduate students. More information about the CSCs is available at https://www.noaa.gov/office-education/epp-msi/csc and the undergraduate scholarships can be found at https://www.noaa.gov/office-education/epp-msi/undergraduate-scholarship.

Department of Interior (DOI)

Minority-Serving Institutions Program – The agency’s Office of Civil Rights operates the program, which looks to support mutually beneficial partnerships between DOI and students and faculty at MSIs. DOI engages in this program through “in-kind services, volunteerism, diverse hiring, grants and contacts.” DOI is particularly interested in recruiting potential employees and partners from MSIs. DOI also has a
series of MOUs with the Hispanic Association of Colleges and Universities (HACU) and other minority-serving societies and organizations. Additionally, within DOI, the Office of Surface Mining Reclamation and Enforcement (OSMRE) has a Minority Higher Education Program (MHEP) to support partnerships with MSIs that have degree programs related to the OSMRE mission. The Fish and Wildlife Service also partners with MSIs. Sources: https://www.doi.gov/pmb/eeo/doi-minority-serving-institutions-program