Agriculture and Food Research Initiative Competitive Grants Program

Education and Workforce Development Program

Fiscal Years (FY) 2021 and 2022 Request for Applications

FUNDING YEAR:	Fiscal Year 2021 and 2022
APPLICATION DEADLINE:	Varies by Program Priority Area
LETTER OF INTENT DEADLINE:	Not Required
ANTICIPATED AVAILABLE FUNDING:	Approximately $45,000,000 from each budget year
ASSISTANCE LISTING NUMBER:	10.310

ELIGIBILITY: See Part III, A of this RFA

This RFA solicits applications for two review cycles (2021 and 2022) covering three years of budgets (FY 2021, FY 2022, and FY 2023). Applicants considering applying to the 2022 review cycle should check the AFRI RFA webpage and www.grants.gov after February 3, 2022 for the 2022 Funding Opportunity Number and Application Kit, as well as for any other changes.

USDA United States Department of Agriculture

National Institute of Food and Agriculture

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE; U.S. DEPARTMENT OF AGRICULTURE

AGRICULTURE AND FOOD RESEARCH INITIATIVE COMPETITIVE GRANTS PROGRAM

EDUCATION AND WORKFORCE DEVELOPMENT PROGRAM

INITIAL ANNOUNCEMENT

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Assistance Listings under the Catalog of Federal Domestic Assistance number 10.310.

DATES FOR LETTERS OF INTENT AND APPLICATIONS: This RFA solicits applications for two review cycles (2021 and 2022). Applications for the 2021 review cycle must be received by **5:00 p.m. Eastern Time** on the 2021 deadline dates indicated in Part I, C of this RFA, Program Area Descriptions. Applications for the 2022 review cycle must be received by **5 p.m. Eastern Time** on the 2022 deadline dates indicated in Part I, C of this RFA, Program Area Descriptions.

Applications received after these deadlines will not be considered for funding (see Part IV, C of this RFA). Comments regarding this request for applications (RFA) are requested within six (6) months from the issuance of this notice. Comments received after that date will be considered to the extent practicable.

STAKEHOLDER INPUT: We at the National Institute of Food and Agriculture (NIFA) seek your comments about this request for applications (RFA). We will consider your comments when we develop the next RFA for the program, if applicable, and we will use them to meet the requirements of section 103(c)(2) of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7613(c)(2)). Submit your written comments by the deadline set forth in the DATES portion of this notice via email to Policy@usda.gov. (This email address is only for receiving comments regarding this RFA and *not* for requesting information or forms.) In your comments, please state that you are responding to the Education and Workforce Development RFA.

Visit the NIFA Centers of Excellence website to access a factsheet on the Centers of Excellence (COE) designation process, including COE criteria, and a list of programs offering COE opportunities.

NIFA solicits proposed topics for Agriculture and Food Research Initiative (AFRI) RFAs from eligible state and national commodity boards on an ongoing basis. Topics must relate to the established AFRI six priority areas. Topics submitted by the commodity boards that align with NIFA priorities are chosen for inclusion in selected program areas of AFRI RFAs. Details on general information and topic submission resources for inclusion in future AFRI RFAs can be found at NIFA's Commodity Board Provision website.

None of the topics submitted by commodity boards were included in this RFA because the topics did not fit the subject matter of this RFA.

EXECUTIVE SUMMARY: The Agriculture and Food Research Initiative (AFRI) is America's flagship competitive grants program that provides funding for fundamental and applied research, education, and extension projects in the food and agricultural sciences. In 2021 and 2022, the National Institute of Food and Agriculture (NIFA) requests applications for the AFRI's Education and Workforce Development program areas to support:

a. professional development opportunities for K-14 educational professionals;
b. non-formal education that cultivates food and agricultural interest in youth;
c. workforce training at community, junior, and technical colleges;
d. training of undergraduate students in research and extension,
e. fellowships for predoctoral candidates and postdoctoral scholars; and
f. agricultural literacy and workforce development evaluation

The anticipated amount available for new grants from FY2021 appropriations is approximately $45 million. For the 2021 deadlines in this Education and Workforce Development RFA, approximately $68 million will be available from FY2021 and FY2022 appropriations. The anticipated amount available for new grants for the 2022 deadlines in this Education and Workforce Development RFA is approximately $68 million.

This RFA is being released prior to the passage of appropriation acts for FY 2022 and FY 2023. Enactment of additional continuing resolutions or an appropriations act may affect the availability or level of funding for this program.

This RFA solicits Standard Grants and Food and Agricultural Science Enhancement (FASE) Grants, whereas project types solicited in this RFA are Research, Education, Extension, and Integrated Research, Education and/or Extension projects. Grant types and project types solicited vary by program area priority, and not all grant types are solicited within each program area priority. See **Part I, C** (Program Area Descriptions) for grant and project types solicited by each specific program area priority, and **Part II, C** for a description of each individual grant type and project type.

This notice identifies the objectives for the AFRI Education and Workforce Development program including program priorities, deadline dates, funding information, eligibility criteria for projects and applicants, and application forms and associated instructions needed to apply for an AFRI Education and Workforce Development grant. In all areas in this RFA, applicants are encouraged to address the priorities in the USDA Science Blueprint and USDA Agriculture Innovation Agenda.

The deadlines under this RFA are summarized as follows:

Program Area Priority	2021 Review Cycle Deadlines[1]	2022 Review Cycle Deadlines[2]
1. Professional Development for Agricultural Literacy (A7501)	June 10, 2021	September 1, 2022
2. Agricultural Workforce Training (A7601)	June 17, 2021	September 15, 2022

---

[1] All applications must be received by 5 p.m. EST on the deadline date.
[2] All applications must be received by 5 p.m. EST on the deadline date.

Program Area Priority	2021 Review Cycle Deadlines[1]	2022 Review Cycle Deadlines[2]
3. Food and Agricultural Non-formal Education (A7801)	May 6, 2021	August 4, 2022
4. Research and Extension Experiences for Undergraduates (A7401)	July 1, 2021	August 18, 2022
5. Predoctoral Fellowships (A7101)	May 27, 2021	TBD
6. Postdoctoral Fellowships (A7201)	May 20, 2021	TBD
7. Agricultural Literacy and Workforce Development Evaluation (A7702)	April 22, 2021	Not applicable

Beginning in 2021:

    a. This RFA covers two grant review cycles, one with 2021 deadlines and one with 2022 deadlines. For applications received under the 2021 deadlines, funding from FY 2021 and FY 2022 appropriated funding will be used. For the 2022 review cycle, funding from FY 2022 and FY 2023 appropriated funding will be used.

Table of Contents

PART I—FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority

Section 2(b) of the Competitive, Special, and Facilities Research Grant Act (hereafter referred to as the Act) (7 U.S.C. 3157), as amended, authorizes the Agriculture and Food Research Initiative (AFRI), a competitive grant program to provide funding for fundamental and applied research, education, and extension to address food and agricultural sciences in the following six priority areas:
1. Plant health and production and plant products;
2. Animal health and production and animal products;
3. Food safety, nutrition, and health;
4. Bioenergy, natural resources, and environment;
5. Agriculture systems and technology; and
6. Agriculture economics and rural communities.

To the maximum extent practicable, NIFA, in coordination with the Under Secretary for Research, Education, and Economics (REE), will make grants for high priority research, education, and extension, taking into consideration, when available, the determinations made by the National Agricultural Research, Extension, Education, and Economics Advisory Board (NAREEEAB) pursuant to the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 3157). The Secretary delegates the authority to the Under Secretary in 7 CFR 2.21, and the Under Secretary delegates that authority to NIFA.

B. Purpose and Priorities

The purpose of AFRI is to support research, education, and extension work by awarding grants to solve key problems of local, regional, national, and global importance in sustaining conventional, organic, and urban agricultural systems. These include farm efficiency, profitability and sustainability, ranching, bioenergy, forestry, aquaculture, rural communities and entrepreneurship, human nutrition, mitigating impacts of biotic and abiotic constraints on food production, food safety, mitigating food waste and food loss, physical and social sciences, family economics and rural human ecology, biotechnology, classical breeding and other disciplines contributing to the agricultural enterprise. Through this support, AFRI advances knowledge in both fundamental and applied sciences important to agriculture. It also allows AFRI to support education and extension activities that deliver science-based knowledge to end users, allowing them to make informed, practical decisions. This AFRI EWD RFA, Assistance Listing 10.310 provides funding for research-only, education-only, extension-only, and/or integrated research, education, and/or extension projects addressing the six priorities identified in Part I, A. Each program area priority within this RFA may offer all or some of these project types.

Food and agricultural systems are under the constraints of a growing population, pressure on natural resources, challenges of climate variability and change, changes in consumer attitudes, and complex demands of ensuring nutritional security and food safety in a global economy. Addressing these challenges requires research, education, extension, and integrated programs in concert with agroecological approaches that increase agricultural and natural resource

sustainability. The term "sustainable agriculture" (7 U.S.C. 3103) means a combined system of plant and animal production practices having a site-specific application that will, over the long-term, achieve the following goals:

1. Satisfy human food and fiber needs;
2. Enhance environmental quality and the natural resource base upon which the agricultural economy depends;
3. Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls;
4. Sustain the economic viability of farm operations; and
5. Enhance the quality of life for farmers and society as a whole.

AFRI encourages projects addressing enhancement of sustainability of agricultural systems.

NIFA supports global engagement that advances U.S. agricultural goals. To attain the agency's goals for U.S. agriculture, global competence of our nation's agricultural workforce, and safe and nutritious food security in a growing world, NIFA recognizes that collaboration with international partners through AFRI can contribute to advances in U.S. agriculture. Thus, applicants to this RFA may include collaborations with international partners. Additional guidance on including international activities is provided on the AFRI International Partnerships website.

Handling of baseline data and data collection will be addressed within each program area solicited in this request for applications.

Stakeholder Input
The AFRI Stakeholder Feedback page has information on AFRI-related stakeholder input.

Background
AFRI is NIFA's flagship competitive grants programs for food and agricultural sciences, and funding is offered through the Foundational and Applied Science, Sustainable Agricultural Systems, and Education and Workforce Development Requests for Applications for addressing critical societal issues.

This AFRI RFA aligns with the following USDA Strategic Goals:

a. Strategic Goal 2: Maximize the Ability of American Agricultural Producers to Prosper by Feeding and Clothing the World;
b. Strategic Goal 3: Promote American Agricultural Products and Exports;
c. Strategic Goal 4: Facilitate Rural Prosperity and Economic Development;
d. Strategic Goal 5: Strengthen the Stewardship of Private Lands Through Technology and Research;
e. Strategic Goal 6: Ensure Productive and Sustainable Use of Our National Forest System Lands; and
f. Strategic Goal 7: Provide All Americans Access to a Safe, Nutritious, and Secure Food Supply

The program area priorities in this RFA also align with the following themes outlined in the USDA Science Blueprint: (1) sustainable agricultural intensification; (2) agricultural climate adaptation; (3) food and nutrition translation; (4) value-added innovation; and (5) agricultural

science policy leadership.. The outcomes of projects supported through this RFA are expected to provide foundations for achieving the goals of the [USDA Agriculture Innovation Agenda](), including the research priorities in genome design, digital and automation tools, prescriptive interventions, and systems-based farm management.

Additional requirements on expected performance goals, indicators and targets may be required as a condition of an award issued per this RFA.

C. Program Area Descriptions

The AFRI EWD RFA addresses projected shortfalls of qualified graduates in the agricultural, food, and renewable natural resources sectors of the U.S. economy ([Employment Opportunities for College Graduates]()). This RFA seeks applications for education and training grants that focus on further enhancing the distinct components of the pipeline for developing the workforce in the food and agricultural sciences. Thus, the AFRI EWD has four overarching goals:

1. Growing Agricultural Literacy and Workforce Development for the Future offers institutional grants to provide K-14 teachers and administrators with increased knowledge of food and agricultural sciences and help them develop improved curricula to train the agricultural workforce for the future. See Program Area Description in Part 1, C, 1 for **"Professional Development for Agricultural Literacy" (Program Code A7501**).

2. Training or Retraining of Agricultural Workers provides institutional training grants to develop a technology- and data-savvy workforce, ready for the field and industrial jobs. See Program Area Description in Part 1, C, 2 for **"Agricultural Workforce Training Grants" (Program Code A7601).**

3. Developing Pathways seeks to support the development of non-formal education activities that cultivate interest and build public confidence in the safe and enhanced use of technology in food and agricultural sciences. See Program Area Description in Part 1, C, 3 for **"Food and Agricultural Non-formal Education" (Program Code A7801**). Additionally, this RFA offers institutional grants that offer experiential learning for undergraduates in food, agriculture, or allied disciplines, and helps them learn the technical and leadership skills required for employment in the food and agricultural sectors or in graduate programs. See Program Area Description in Part 1, C, 4 for **"Research and Extension Experiences for Undergraduates" (Program Code A7401)**.

4. Advancing Science supports graduate and post-graduate education in food and agriculture disciplines. See Program Area Description in Part 1, C, 5 and Part 1, C, 6 for **"Predoctoral Fellowships" (Program Code A7101)** and **"Postdoctoral Fellowships" (Program Code A7201)**, respectively.

In Fiscal Year 2021, AFRI EWD will accept applications to assess and synthesize the NIFA portfolio of all NIFA's Agricultural Literacy and Workforce Development programs. See Program Area Description in Part 1, C, 7 for **"Agricultural Literacy and Workforce Development Evaluation" (Program Code A7702).**

Total EWD Program Funds – Approximately $45 million for each budget year

Key Information Applicable to all EWD Program Areas:

1. All applications must adhere to the requirements in Part IV.

2. All applications to the AFRI EWD program areas must be aligned with at least one of the six AFRI Farm Bill priorities (Part I. a) and must address the stated Program Area Priorities described subsequently.

3. All AFRI EWD projects are required to provide opportunities for development of leadership skills, which are necessary for preparing project participants for agriculture-related careers in the private sector, government, and academia. Projects must demonstrably incorporate a leadership development component through competencies such as critical thinking, problem-solving, teamwork, communication skills, and training in ethics and professionalism.

4. The AFRI EWD program areas anticipate funding projects with measurable outcomes/objectives. These may include: 1) number of students/participants that are supported directly or undertaking internships, externships, certifications, and other experiential learning opportunities; 2) number of K-14 teachers, educational professionals, and/or students who indirectly benefit from the projects 3) number of international experiences; 4) number of publications, patents, and workshops; 5) quality of developed curricula materials, or academic programs; 6) success of recruitment and retention programs, especially for underrepresented groups; 7) quality of collaborations developed among institutions; 8) measurable changes in student learning or engagement; and 9) measurable changes in the number of graduates, especially underrepresented individuals, in food and agricultural science disciplines.

5. Applications from, and collaborations with, minority-serving institutions, small to mid-sized institutions, and/or Established Program to Stimulate Competitive Research (EPSCoR) states are encouraged to apply to these program areas. Applications that include collaborations with international partners are also welcome. For information on NIFA international partnerships that may be of interest to applicants, see the AFRI International Partnerships website.

Applications are solicited in the following seven Program Area Priorities:

1. **Professional Development for Agricultural Literacy (PDAL)**

Program Area Code – A7501

Proposed Budget Requests
   a. Budgets, including indirect costs, for Standard Grants and Strengthening Standard Grants must not exceed **$500,000** total per project for project periods of three to four years.
   b. Funds requested may include, but are not limited to, support participant stipends and travel; costs of continuing education units; provider personnel salaries; software; and curricula.
   c. Each review cycle may award up to two grants per lead institution.
   d. Food and Agricultural Science Enhancement (FASE) (Strengthening Standard) Grants must adhere to the guidelines outlined beginning in Part II, C(2).
   e. Applications with budget requests exceeding the budgetary guidelines will not be reviewed.

Requested Project Types – Education, Extension, or Integrated Projects only

Requested Grant Types – Standard Grants and FASE (Strengthening Standard) Grants only

Application Deadlines
   a. **2021:** Thursday, June 10, 2021 (5:00 p.m. Eastern Time)
   b. **2022:** Thursday, September 1, 2022 (5:00 p.m. Eastern Time)

Program Area Contact – Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov

Program Area Priority –

The PDAL program area seeks to increase the number of K-14 educational professionals trained in the food and agricultural sciences. Participants (teachers, post-baccalaureate pre-service teachers, counselors, administrators) are expected to develop and apply skills necessary for integrating food and agricultural science concepts in their classes; explore the opportunities available in food and agricultural science career paths; and/or forge mentorships with professional and business leaders, and faculty at four-year institutions.

Education, Extension, or Integrated Projects must:

   a. Promote faculty expertise and encourage widespread implementation of educational innovation at K-14 levels in the food and agricultural sciences. This includes topics that contain elements of the human sciences (e.g., disciplines that address issues challenging individuals, youth, families, and communities).
   b. Provide immersive learning experiences (hands-on research, curriculum development and teaching training, experiential learning training, etc.) for K-14 education professionals (teachers, counselors, administrators, etc.) and post-baccalaureate pre-service teachers to create and replicate best practices to improve student success outcomes within the food and agricultural sciences.
   c. Non-exhaustive examples of projects include:
      1. Developing self-sustaining models for professional development that better prepare education professionals to provide outstanding teaching, guidance, institutional structures, etc., that enhance student outcomes in the food and agricultural sciences.
      2. Changing instructional approaches to effectively identify skill gaps and address conceptual areas particularly challenging to students.

3. Integrating innovations in science and pedagogy into existing professional development programs (e.g., through hands-on research and extension experiences with partner institutions and laboratories).
4. Exploring self-sustaining web-based approaches for professional development for education professionals.
5. Develop improved curricula to train or retrain agricultural workforce for the future.
6. Other methods to fill the existing gap of professional development in advanced food and agricultural sciences for education professionals at the K-14 education level.

Program Area Priority Additional Information –
a. See **Part IV, C** of this RFA for the **REQUIRED** Project Summary and Project Narrative format. Proposals that do not comply with these instructions may be excluded from review and consideration of funding.
b. Projects that target elementary and middle school education are encouraged.
c. A minimum of 50% of project costs for PDAL projects must be for participant support, including items such as participant stipends, cost of subsistence (housing, meals) for immersive experiences, reasonable travel, materials and teaching kits, and laboratory use fees.
d. Projects are encouraged to integrate participant social-emotional skill development activities and training for effective in-person and/or virtual teaching.
e. Projects that involve participation from industry and nonprofit organizations through collaborating mentors and/or that connect education professionals, particularly those from schools with limited resources, to existing USDA and Federal resources (e.g., USDA Agricultural Research Service, Forest Service, Federal laboratories, open data resources) to enhance student outcomes in the food and agricultural sciences are encouraged.
f. As applicable, if the majority of project activities are taking place off-site, off-campus indirect cost rates should be charged.
g. If organized by the program, the Project Director (PD) will be required to attend one NIFA AFRI EWD PD meeting during the performance period of the award. Reasonable travel expenses must be included as part of the project budget.
h. This program area accepts new and resubmitted applications only. Renewal applications are not accepted in this program area.

2. Agricultural Workforce Training Grants (AWT)
Program Area Code – A7601
Proposed Budget Requests
a. Budgets, including indirect costs, for Standard Grants and Strengthening Standard Grants must not exceed **$500,000** total per project for project periods of three to four years. Funds requested may include but are not limited to: support for participant stipends and travel; costs of course enrollment; provider personnel salaries; software; and curricula.
b. Each review cycle may award up to two grants per lead institution.
c. Food and Agricultural Science Enhancement (FASE) Strengthening Standard Grants must adhere to the guidelines outlined beginning in Part II, C(2).

d. Applications with budget requests exceeding the budgetary guidelines will not be reviewed.

Requested Project Types – Research, Education, Extension, or Integrated Projects

Requested Grant Types – Standard Grants, and FASE (Strengthening Standard) Grants only

Application Deadlines
  a. **2021:** Thursday, June 17, 2021 (5:00 p.m. Eastern Time)
  b. **2022:** Thursday, September 15, 2022 (5:00 p.m. Eastern Time)

Program Area Contact – Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov

Program Area Priority –

The AWT program area seeks to develop a technology- and data-savvy workforce, ready for the field and industrial jobs in the food and agricultural sector. Through the development of new workforce training programs, or the expansion, improvement, or renewal of existing workforce training programs at community, junior, and technical colleges/institutes, this program will expand job-based, experiential learning opportunities for students to enable a work-ready labor force for 21st century agricultural jobs.

Education, Extension or Integrated Projects must address the following:
  a. Develop new workforce training programs or expand and improve existing workforce training programs in the food and agricultural sciences at community, junior, and technical colleges/institutes to develop a technology- and data-savvy workforce ready for field and industrial jobs.
  c. Provide students the skills and tools necessary to secure industry-accepted credentials to join the workforce upon participation completion.
  d. Be developed by or in active partnership with community/junior/technical colleges/institutes and their industry partners. All applications to this program area must demonstrate committed and active partnership with and/or relevance to industry.
  e. Non-exhaustive examples of projects include:
      1. Industry-based training programs/apprenticeships allowing students to 'earn while they learn;
      2. Job-based, experiential learning opportunities that allow students more time working in job simulation or 'on-the-job' training environments;
      3. Refreshing existing workforce development curriculum to meet the needs of 21st century agricultural industry
      4. Opportunities for students to utilize appropriate cutting-edge technology and advanced data skills in their learning experiences.

Program Area Priority Additional Information –
  a. See **Part IV, C** of this RFA for the **REQUIRED** Project Summary and Project Narrative format. Proposals that do not comply with these instructions may be excluded from review and consideration of funding.
  b. AWT projects must allocate a reasonable portion of the funds to student support, including items such as participant stipends, course enrollment, training, and laboratory use fees.
  c. Curriculum for workforce training developed, expanded, or improved under this program area must lead participants to earn a technical certificate, stackable credential, 2-year associates or technical degree or other industry accepted credential. (Certificates, training

or coursework for/part of baccalaureate or post-graduate degrees or training **ARE NOT** supported under this program area priority).

d. Projects that involve partnerships with local government, economic development organizations, and workforce-focused nonprofit organizations are encouraged.

e. Workforce training includes, and is not limited to, the creation of new curriculum and instructional delivery systems, pilot testing/implementation of curriculum and delivery methods, development of assessment tools, and evaluation.

f. Applications that target high-unemployment geographic areas or underrepresented groups are encouraged.

g. Applications should include the substantial mentoring of program participants.

h. Self-sustaining projects that will continue after grants funds expire are encouraged.

i. As applicable, if the majority of project activities are taking place off-site, off-campus indirect cost rates should be charged.

j. If organized by the program, the Project Director (PD) will be required to attend one NIFA AFRI EWD PD meeting during the performance period of the award. Reasonable travel expenses must be included as part of the project budget.

k. This program area accepts new and resubmitted applications only. Renewal applications are not accepted in this program area.

3. **Food and Agricultural Non-formal Education (FANE)**
Program Area Priority Code – A7801
Proposed Budget Requests

a. **Food and Agricultural Non-formal Education (FANE)** project budgets, including indirect costs, for Standard Grants and Strengthening Standard Grants must not exceed **$750,000** total per project for project periods of three or four years.
   1. Funds requested may include but are not limited to support of participant stipends and travel; provider personnel salaries; software; and curricula.

b. **Civic Engagement Experience for Youth (CEEY)** project budgets, including indirect costs, for Standard Grants, and Strengthening Standard Grants addressing the civic engagement experience topic area must not exceed **$1,000,000** total per project for project periods of four or five years. CEEY anticipates making up to one award.
   1. Project costs for CEEY projects must be reasonable and commensurate with the activities outlined below including but not limited to support youth cost of attendance and subsistence (travel, housing, meals); speaker honorariums; provider personnel salaries; event planning supplies; facilitator and staff training; and evaluation.
   2. CEEY proposals should include the acronym "CEEY" in the title.

c. Food and Agricultural Science Enhancement (FASE) (Strengthening Standard) Grants must adhere to the guidelines outlined beginning in Part II, C(2).

d. Requests exceeding the budgetary guidelines will not be reviewed.

Requested Project Types – Extension, Education, or Integrated Projects only. Eligibility is linked to the project type.

Requested Grant Types – Standard and FASE (Strengthening Standard) Grants only

Application Deadlines
    a. **2021:** Thursday, May 6, 2021 (5:00 p.m. Eastern Time)
       Note: Civic Engagement Experience for Youth (CEEY) applications will be accepted in FY 2021 <u>only</u>.
    b. **2022:** Thursday, August 4, 2022 (5:00 p.m. Eastern Time)

Program Area Priority Contacts
    a. Dr. Maurice Smith, Jr., maurice.smith2@usda.gov
    b. Dr. Suzanne Stluka, (816) 908-3305 or suzanne.stluka@usda.gov
    c. Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov

Program Area Priority –
Major advances in agricultural productivity and rural prosperity in the past have resulted from transformative technologies such as breeding tools and strategies, mechanization, and prudent use of agrochemicals. There are several emerging technologies that hold a similar promise. This program area priority will support content development and activities for non-formal education to foster development of technology-savvy youth. Projects must develop activities that cultivate interest and competencies in STEM and in food and agricultural sciences supported by the six Farm Bill Priority areas of AFRI. Data science, including artificial intelligence, automation and robotics as well as gene editing and biotechnology will be supported in this program area priority.

Food and Agricultural Non-formal Education (FANE) applications must address the following:
    a. Develop content and activities to enhance youth's understanding of gene editing, biotechnology, data science, artificial intelligence, robotics, automation, and other technologies that enhance the food and agricultural enterprise and prepares them to help meet the needs of the future workforce through enhanced non-formal education modules.
    b. Develop outreach materials that clearly communicate the demonstrated benefits of agricultural technologies and biotechnology.
    c. Should complement and build upon programs that have successfully demonstrated positive youth development strategies and outcomes (i.e. 4-H programming, Agriculture in the Classroom, FDA's Agricultural Biotechnology Education and Outreach Initiative, etc.).
    d. Involve youth in the design, execution, and evaluation of activities that lead to the development of consumer-friendly content that builds public confidence in the safe use of biotechnology in agriculture and the food system.

Civic Engagement Experience for Youth (CEEY)
In order to support whole-child development and as compliment of the enhanced understanding of the benefits of agriculture activities, applications are solicited for a project that promotes non-formal educational civic engagement experiences for 4-H youth in grades 10-12th (15-19 years old) such that participants create positive social change in their communities. CEEY will award a single grant to an institution to coordinate and execute the delivery of an annual National 4-H Conference in consultation with USDA NIFA program staff.

CEEY applications must address the following:
  a. Develop, organize, and execute the National 4-H Conference on an annual basis;
  b. Provide a clearinghouse for National 4-H Conference planning outputs, data, and documents as well as products and outputs of FANE funded projects;
  c. Conduct a formal assessment of the National 4-H Conference and its impact on youth that produces curricula, trainings, and other offerings to be used in future conferences and events;
  d. Enhance access to participation in National 4-H Conference to underrepresented youth and communities by utilizing at least 25% of the grant funds to support attendance costs of youth from these communities.
  e. Connect participants with 4-H leaders, youth development practitioners, Cooperative Extension faculty, land-grant university administrators, government officials, researchers, policy-makers, 4-H alum, business leaders and other partners.

Program Area Priority Additional Information –
  a. See **Part IV, C** of this RFA (AFRI EWD RFA Additional Information for Part IV, C document linked there) for the REQUIRED Project Summary and Project Narrative format. Proposals that do not comply with these instructions will be excluded from review and consideration of funding.
  b. Projects that enhance access and interest in innovative agricultural technology (i.e. data science and artificial intelligence, robotics and automation, and gene editing and biotechnology) education for communities underrepresented in STEM education and utilize a whole-child approach to promote learning about biotechnology in food and agriculture are encouraged.
  c. Projects that promote team, active learning, and resiliency skills are encouraged.
  d. Projects must institute an ongoing and innovative system to evaluate participant learning and outcome quality.
  e. Projects that involve participation from industry and nonprofit organizations through collaborating mentors and/or that connect education professionals, particularly those from low-resource schools, to existing USDA and Federal resources (e.g., USDA Agricultural Research Service, Forest Service, Federal laboratories, open data resources) to enhance student outcomes in the food and agricultural sciences are encouraged.
  f. As applicable, if the majority of project activities are taking place off-site, off-campus indirect cost rates should be charged.
  g. If organized by the program, the Project Director (PD) will be required to attend one NIFA AFRI PD meeting during the performance period of the award. Reasonable travel expenses must be included as part of the project budget.
  h. This program area accepts new applications only. Renewal applications are not accepted.

4. <u>Research and Extension Experiences for Undergraduates (REEU)</u>
Program Area Code – **A7401**
Proposed Budget Requests
   a. **Research and Extension Experiences for Undergraduates (REEU)** project budgets, including indirect costs, for both Standard Grants and Strengthening Standard Grants must not exceed **$600,000** <u>total per project</u> for project periods of four years, or **$750,000** total per project for project periods of five years.
       1. Project costs for REEU projects must be predominantly for student support, including items such as participant stipends, housing, meals, travel, and laboratory use fees. Costs in budget categories outside Participant Support must be modest and reasonable (and may include justified support for the coordination of the program).
       2. Tuition for course credit and promotional items **ARE NOT** allowable costs in this program.
       3. Each review cycle may award up to two grants per lead institution.
   b. **Education Coordinated Network for Research and Extension Experiences for Undergraduates (REEU-ECN)** project budgets, including indirect costs, for Standard Grants, and Strengthening Standard Grants addressing the education coordination network priority must not exceed **$500,000** <u>total per project</u> for project periods of five years. REEU-ECN anticipates making up to one award.
       1. Project costs for REEU-ECN projects must be reasonable and commensurate with the coordinating activities of national scope outlined below.
   c. FASE (Strengthening Standard) Grants must adhere to the guidelines outlined in Part II, C(2) of this RFA.
   d. Applications with budget requests exceeding the budgetary guidelines will not be reviewed.
Requested Project Types – Research, Education, Extension or Integrated Projects
Requested Grant Types – Standard Grants and FASE (Strengthening Standard) Grants <u>only</u>
Application Deadlines
   a. **2021:** Thursday, July 1, 2021 (5:00 p.m. Eastern Time)
      Note: Education Coordinated Network for Research and Extension Experiences for Undergraduates (REEU-ECN) applications will be accepted in FY 2021 <u>only</u>.
   b. **2022:** Thursday, August 18, 2022 (5:00 p.m. Eastern Time)
Program Area Contact – Dr. Ray Ali, (816) 926-1453 or nifa-education@usda.gov

Program Area Priority –
The REEU program area promotes research and extension learning experiences for undergraduates such that upon graduation they may enter the agricultural workforce with exceptional skills. This initiative allows colleges and universities to provide fellowship opportunities for undergraduate students, including those from underrepresented and economically disadvantaged groups, minority-serving institutions, community colleges, and universities.

Projects must provide undergraduate students with experiential learning opportunities that include significant research and/or extension components in the food and agricultural sciences.

Within the six Farm Bill priority areas, the REEU program area is particularly interested in REEU sites focused on the [USDA Science Blueprint](#) themes: (1) sustainable agricultural intensification; (2) agricultural climate adaptation; (3) food and nutrition translation; (4) value-added innovation; and (5) agricultural science policy leadership.

Also, of interest are the projects that provide experiences in innovative agricultural technologies, including Data Science and Artificial Intelligence, Robotics and Automation, and Gene Editing.

Non-exhaustive examples of experiential projects include:
   a. Research and extension apprenticeships, internships, or similar participatory learning within the six AFRI Farm Bill priority areas.
   b. Practicums in agricultural laboratories, farms, or Cooperative Extension Programs.
   c. Externships in the private or public sector.
   d. Study abroad focused on global food security issues to develop global competency skills.

Education Coordinated Network for Research and Extension Experiences for Undergraduates (REEU-ECN)

In addition to the priorities listed above, applications are solicited to develop a network of REEU projects and personnel that will foster national-level coordination of opportunities for students and to enhance collaboration among projects. The REEU program will award a single grant to an institution to maintain the education-coordinated network. Coordination education network proposals should include the acronym "REEU-ECN" in the title. **REEU-ECN will only award a single grant. NOTE: Include the acronym "ECN" in the title.**

REEU-ECN applications must address the following:
   a. Provide a clearinghouse for REEU project outputs, data, and documents;
   b. Create and maintain any number of collaboration spaces for REEU project directors and other key personnel to interact and share information, including but not limited to a listserv;
   c. Be responsible for organizing the REEU PD meeting in collaboration with NIFA Program Leadership every 18-24 months;
   d. Create and maintain a portable public facing website, to include information on all funded REEU programs and links to the program websites.

Program Area Priority Additional Information –
   a. See **Part IV, C** of this RFA for the **REQUIRED** Project Summary and Project Narrative format. Proposals that do not comply with these instructions may be excluded **from** review and consideration of funding.
   b. Projects must provide opportunities to include hands-on experiences for undergraduate students at colleges and universities, especially those from underrepresented and economically disadvantaged groups, veterans, first generation college students, students at minority-serving institutions and community colleges.
   c. At least 50% of the undergraduate fellows must come from outside the host institution or organization, particularly from small institutions where opportunities are not easily available for these experiences.
   d. Participating students could also build their skills necessary for graduate studies; explore the opportunities available in academia, business, government and other career paths; and forge mentorships with professional and business leaders and faculty.

e. Applications that involve new collaborations or enhance existing partnerships with community colleges, minority-serving institutions, and other institutions where limited research and extension opportunities in mission-relevant STEM fields are encouraged.

f. Applications that involve industry participation (e.g., through collaborating mentors) and/or that target a food and agricultural science industry where there is a documented shortage of talent or lack of adequate skills preparation for the needs of the industry are encouraged.

g. Projects that will catalyze and result in the implementation of a self-sustaining model for increased/enhanced experiential learning for a diverse undergraduate student population at the host and partner institutions are encouraged.

h. Projects should develop a plan for tracking students, beyond their participation in the program that demonstrates the impacts of the program on career choices and post-graduation employment and/or enrollment in higher education.

i. If organized by the program or the coordination network, the PD will be required to attend one NIFA AFRI EWD PD meeting during the performance period of the award. Reasonable travel expenses must be included as part of the project budget.

j. Awarded projects are required to maintain a website, linked to a central REEU webpage to be hosted by the REEU Coordinated Education Network, which describes the program, eligibility for student participation, and application guidelines.

k. This program area accepts new and resubmitted applications. Renewal applications are disallowed.

l. Previously awarded REEU projects that wish to continue their program, should reapply as a new application and include a progress report detailed in **Part IV, C**. These applications will be competed with new and resubmitted applications.

5. **Predoctoral Fellowships**
Program Area Code – **A7101**
Proposed Budget Requests

a. Predoctoral Fellowship requests, including institutional allowance, must not exceed **$180,000** total per project for project periods of up to three years. Predoctoral Fellowship Grants are not renewable and are limited to a total of **$60,000** per year, for the following:
1. Stipend – up to $35,000 per year;
2. Tuition, fees, fringe benefits, supplies, travel, workshops, and publications – up to $22,000 per year;
3. Institutional allowance (in lieu of indirect costs) – up to $3,000 per year; indirect costs are not permitted on Predoctoral Fellowship Grant awards;
4. With the exception of the stipend, awarded funds in other budget categories may be carried over from year one to other years. The stipend is capped at $35,000 per year and cannot be carried over from year one to the next.

b. Applications with budget requests exceeding the budgetary guidelines will not be reviewed.

Requested Project Types – Research, Education, Extension, or Integrated Projects
Requested Grant Type – Predoctoral Fellowship (FASE) Grants only
Application Deadlines

a. **2021:** Thursday, May 27, 2021 (5:00 p.m. Eastern Time)
b. **2022:** Applicants considering applying to the 2022 review cycle should check after February 3, 2022 for updated eligibility requirements for FY 2022.

Program Area Contact – Dr. Ray Ali, (816) 926-1453 or nifafellows@usda.gov

Program Area Priority –
The Predoctoral Fellowships program areas help to develop new scientists and professionals to enter research, education, and/or extension fields within the food and agricultural sciences within the private sector, government, or academia. The aim of these fellowships is to cultivate future leaders who can solve emerging agricultural challenges of the 21st century. NIFA is particularly interested in supporting fellows that address (1) sustainable agricultural intensification; (2) agricultural climate adaptation; (3) food and nutrition translation; (4) value-added innovation; and (5) agricultural science policy leadership.

Research, education, extension and integrated research, education and/or extension projects must address all of the following:
   a. Objectives that are aligned with one or more of the six AFRI priority areas (as described in **Part I, A)**;
   b. Well-developed academic experiences and global competencies;
   c. Productive and interactive mentoring plans;
   d. Appropriate and applicable training/career development activities; and
   e. Substantive evaluation plans (see **Part IV, C** for additional information).

Eligible Predoctoral Fellows – The individual predoctoral Project Director (PD) must be a citizen, national, or permanent resident of the United States and, as per CFR 3430.303, have advanced to candidacy, as per institutional requirements, by:
   a. Fiscal Year 2021 competition: May 25, 2021
   b. Applicants considering applying to the 2022 review cycle should check after February 3, 2022 for updated eligibility requirements for FY 2022.

Documentation from the graduate advisor or the institution must be provided by the application deadline. The intent of the NIFA Predoctoral Fellowship Program is to support current doctoral students who are at the stage of conducting dissertation research, ultimately leading to completion of the dissertation and respective terminal degree. Predoctoral students, inclusive of those with baccalaureate or master's degrees, who meet the above criteria, may apply.

Program Area Priority Additional Information –
   a. See **Part IV, C** of this RFA for the **REQUIRED** Project Summary and Project Narrative format. Proposals that do not comply with these instructions may be excluded from review and consideration of funding.
   b. Applicants from underrepresented groups are encouraged to apply.
   c. The predoctoral candidate must be the sole PD listed on the Key Personnel form of the application. The mentor should not be listed as a Co-PD. Select "Graduate Student" for the Predoctoral Fellowship applicant and "Other (Specify)" for the corresponding scientific mentor(s). We highly recommend that applications be submitted through the mentor's institution with the mentor institution listed as the applicant.
   d. At the time of the award and release of funds from NIFA to sponsoring institution, Fellows are required to carry out their projects on a full-time basis (i.e., 100% effort), as specified by the sponsoring institution in accordance with its own policies.

e. The applicant must identify the functional focus of the fellowship (Research, Education, Extension, or Integrated) leading to a doctoral degree.

f. The selection of disciplines to address an issue is to be determined by the prospective applicant in consultation with appropriate mentors.

g. Evidence of scholastic achievement should be demonstrated through current doctoral transcript, program of study, and/or other academic successes.

h. This priority area encourages multidisciplinary, transdisciplinary, and applied approaches that involve industry participation and/or international experiences (e.g., through collaborating mentors) as appropriate.

i. Fellows are expected to build the professional skills necessary for career agility; explore opportunities available in academia, industry, government and other career paths; and forge mentorships with professional and business leaders and faculty. As part of the Fellows' professional development, attendance at scientific or professional meetings and experiences in industry or at field locations aimed at the development of skills in the applied sciences are encouraged.

j. If organized by the program, the PD will be required to attend one NIFA AFRI EWD PD meeting during the performance period of the award. Reasonable travel expenses must be included as part of the project budget.

k. This program area only accepts new and resubmitted applications. Renewal applications are disallowed.

l. Consistent with the program goal of fostering career independence, NIFA Predoctoral and Postdoctoral Fellowships can be converted to Standard Grants under certain circumstances (e.g., if the Fellow obtains a faculty position). The actual performance may occur prior to the official award start date and must be validated by the AOR. The conversion process includes the following:

   1. A letter (PDF) from the Project Director indicating objectives completed, funds remaining, timeline involved, etc. Said letter must be signed by the AOR.

   2. A letter (PDF) from the mentor attesting to the fellowship accomplishments that might be considered towards substantive fellowship performance (i.e., commencement date of actual performance, time spent on career development and planning/training, mentoring, project planning, etc.).

   3. Email both letters to the National Program Leader (Program Point of Contact on the Award Face Sheet). If initially agreed upon by the National Program Leader, additional institutional administrative processes need to take place (e.g., relinquishment, submission of an application, revised budget, etc.). Said processes must be executed within the performance period of the original award. NIFA reserves the right to approve or deny the conversion request. Note: Predoctoral Fellowships cannot be converted into Postdoctoral Fellowships.

6. Postdoctoral Fellowships
Program Area Code – A7201
Proposed Budget Requests
- a. Postdoctoral Fellowship requests, including institutional allowance, must not exceed **$225,000** total per project for project periods of up to two years for the following (These requests are not renewable.):
  1. Funds must be requested primarily for salary or stipend and be properly justified;
  2. Other expenditures (e.g., fringe benefits, supplies, travel, workshops, and publications) may not exceed $60,000 per year and must be itemized and properly justified;
  3. Institutional allowance (in lieu of indirect costs) – up to $3,000 per year. Indirect costs are not permitted on Postdoctoral Fellowship Grant awards.
- b. Applications with budget requests exceeding the budgetary guidelines will not be reviewed.

Requested Project Types – Research, Education, Extension, or Integrated Projects
Requested Grant Type – Postdoctoral Fellowship (FASE) Grants only
Application Deadlines
- a. **2021:** Thursday, May 20, 2021 (5:00 p.m. Eastern Time)
- b. **2022:** Applicants considering applying to the 2022 review cycle should check after February 3, 2022 for updated eligibility requirements for FY 2022.)

Program Area Contact – Dr. Ray Ali, (816) 926-1453 or nifafellows@usda.gov

Program Area Priority –
The Postdoctoral Fellowships program areas help to develop new scientists and professionals to enter research, education, and/or extension fields within the food and agricultural sciences within the private sector, government, or academia. The aim of these fellowships is to cultivate future leaders who can solve emerging agricultural challenges of the 21st century. NIFA is particularly interested in supporting fellows that address (1) sustainable agricultural intensification; (2) agricultural climate adaptation; (3) food and nutrition translation; (4) value-added innovation; and (5) agricultural science policy leadership.

Research, education, extension and integrated research, education and/or extension projects must address all of the following:
- a. Objectives that are aligned with one or more of the six AFRI priority areas;
- b. Well-developed academic experiences and global competencies;
- c. Productive and interactive mentoring;
- d. Appropriate and applicable training/career development activities; and
- e. Substantive evaluation plans.

Eligible Postdoctoral Fellows – As per CFR 3430.303, all doctoral degree requirements must be satisfied by:
- a. Fiscal Year 2021 competition: no earlier than January 1, 2018, and no later than February 18, 2022
- b. Applicants considering applying to the 2022 review cycle should check after February 3, 2022 for updated eligibility requirements for FY 2022.

Documentation from the graduate advisor, graduate committee, or the institution must be provided by the application deadline. The postdoctoral project director (PD) must be a citizen, national, or permanent resident of the United States.

Program Area Priority Additional Information –
a. See **Part IV, C** of this RFA for the **REQUIRED** Project Summary and Project Narrative format. Proposals that do not comply with these instructions may be excluded from review and consideration of funding.
b. The postdoctoral scholar must be the sole PD listed on the Key Personnel form of the application. The mentor should not be listed as a Co-PD. Select "Post Doctoral" for the Postdoctoral Fellowship applicant. Select "Other (Specify)" for the corresponding scientific mentor(s). Enter "Mentor" for corresponding scientific mentor(s) in the Other Project Role Category Field.
c. At the time of the award and release of funds from NIFA to sponsoring institution, Fellows are required to carry out their projects on a full-time basis (i.e., 100% effort), as specified by the sponsoring institution in accordance with its own policies.
d. Note that the Program Area Priority Additional Information identified for Predoctoral Fellowships also applies to Postdoctoral Fellowships.
e. Although a proposed project may fit in the context of the mentor's existing scientific area, the Postdoctoral Fellowship Grant should initiate an independent scientific program, rather than serve as an extension of ongoing projects in the mentor's laboratory.
f. This priority area encourages multidisciplinary, transdisciplinary, and applied approaches that involve industry participation and/or international experiences (e.g., through collaborating mentors) as appropriate.
g. If organized, the PD will be required to attend one NIFA AFRI EWD PD meeting during the performance period of the award. The PD is also required to attend a PD meeting of the Foundational and Applied Science Program Areas or the Sustainable Agricultural Systems Program Area with which the project is most closely aligned during the performance period of the award. Reasonable travel expenses must be included as part of the project budget.
h. This program area accepts new and resubmitted applications only. Renewal applications are not accepted in this program area.

7. Agricultural Literacy and Workforce Development Evaluation
Program Area Priority Code – A7702
Proposed Budget Requests
a. **Agricultural Literacy and Workforce Development Evaluation (ALE)** project budgets, including indirect costs, for Standard Grants and Strengthening Standard Grants must not exceed **$750,000** total per project for project periods of three years. ALE proposals should include the acronym "ALE" in the title. ALE anticipates making up to one award.
b. **Outcomes in Participant Career Development (OPCD)** project budgets, including indirect costs, for Standard Grants and Strengthening Standard Grants must not exceed **$600,000** total per project for project periods of four years. OPCD proposals should include the acronym "OPCD" in the title. OPCD anticipates making up to one award.
c. Food and Agricultural Science Enhancement (FASE) (Strengthening Standard) Grants must adhere to the guidelines outlined beginning in Part II, C(2).

d. Requests exceeding the budgetary guidelines will not be reviewed**.**
Requested Project Types – Research Projects <u>only</u>
Requested Grant Types – Standard and FASE (Strengthening Standard) Grants <u>only</u>
Application Deadlines
    a. **FY 2021:** Thursday, April 22, 2021 (5:00 p.m. Eastern Time)
    b. **FY 2021:** This program area priority is not offered in 2022
Program Area Contact – Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov

Program Area Priority –
The primary goal of this program area priority is to develop a synthesis and assessment of USDA NIFA's Agricultural Literacy and Workforce Development programs' portfolio and investments from FY 2010 continuing through FY 2020. This priority calls for proposals to provide a programmatic review of the portfolio, in relation to the legislated goals, USDA strategic priorities, NIFA's education pipeline goals and gaps in addressing national education and workforce development needs throughout the education pipeline. The project should provide an assessment of impacts of the programs and a roadmap for future portfolio priorities to further strengthen and develop the pipeline.

NIFA has defined its investments in the education pipeline to consist of the following goals to:
    a. Enhance Agricultural Literacy: support K-14 agricultural education programs that provide K-14 students, teachers and administrators with increased knowledge of food and agricultural disciplines and career opportunities.
    b. Develop the Workforce: invest in community colleges and undergraduate degree programs in agriculture or allied disciplines that provide students with applied technical and leadership skills required for employment in the agricultural sectors and rural enterprises or in graduate programs.
    c. Advance Science: support graduate and post-graduate education in agriculture and related disciplines.
    d. The evaluation project will provide a robust picture of the outcomes, knowledge, educational curricula, extension activities and outreach, and tools that were developed as well as identify the best strategies to enhance return on investment in education and workforce development. The desired outcome is to have a comprehensive analysis to determine the impact of USDA NIFA support for enhancing the education pipeline in relation to development of a workforce ready to contribute to U.S. agriculture and food production systems.
    e. It is recommended that the following information sources be used in projects:
        1. [USDA Current Research Information System](#) (CRIS) / [NIFA's Data Gateway](#)
        2. [NIFA's Agricultural Education Pipeline](#)
        3. [USDA Science Blueprint](#)
        4. [USDA Agriculture Innovation Agenda](#)
        5. [USDA Research, Education, & Economics Information Systems (REEIS)](#)
        6. [Journal articles, education and outreach materials, and reports related to NIFA agricultural education and workforce development pipeline projects](#)
        7. [Project and NIFA personnel](#)

Agricultural Literacy and Workforce Development Evaluation (ALE) applications must address all of the following criteria:

    a. Identify or develop an analytical approach that can effectively synthesize and assess the success of NIFA's investment. This must include developing and deploying innovative quantitative/qualitative indicators or measures of the array of topics addressed and activities performed by the projects and a method of assessing the individual and collective effectiveness of the projects and overall portfolio;

    b. Identify the key topical areas that have been covered by NIFA program's portfolio investments from FY 2010 to FY 2020, and the effectiveness of these investments in achieving national, departmental, and agency goals;

    c. Ascertain the strengths and weaknesses in the portfolio that can inform the direction of future NIFA's education pipeline funding. This assessment should include broad applicability and gaps of portfolio coverage across NIFA's education pipeline, and disciplines of importance for research, education, and extension opportunities;

    d. Identify the key outcomes and impacts of the portfolio and continuing workforce needs in food and agriculture sciences targeted by them. Evaluate whether these programs address the challenges identified at the national level by major organizations and stakeholders;

    e. Assess the impacts of NIFA's investment on the three pipeline goals, identify gaps for future investment and help develop a strategy to reinforce the pipeline.

    f. Identify the impacts of NIFA's' investment on an individual's career development, beyond their participation in a NIFA-supported project that demonstrates the impacts of the project on career choices, enrollment in higher education (including graduate and/or postgraduate studies), and/or career advancement (i.e. employment status, sector, etc.);

    g. Identification of barriers that have limited NIFA programs from meeting their proposed goals, outputs, and impacts, and educational materials that can be utilized to more broadly implement best management practices across projects;

    h. Establish common metrics of performance that best predict project impacts that can be implemented across NIFA's agricultural education and workforce development programs.

Outcomes in Participant Career Development (OPCD)
Complementary to the priorities listed above, OPCD applications are solicited to develop, pilot, and maintain a mechanism that will track the impacts of NIFA's investment on individual career development beyond their participation in a NIFA-supported scholarship or fellowship program. The goal of this project is to follow the impacts of NIFA funds in scholar and fellow enrollment in higher education (including graduate and/or postgraduate studies) and career advancement (i.e. employment status, sector, etc.) after receiving NIFA support. OPCD proposals should include the acronym "OPCD" in the title.

OPCD applications must address the following:

    a. Develop, pilot, and maintain a career development tracking mechanism including demographic, education, employment and other data of participants in AFRI's Predoctoral and Postdoctoral Fellows, New Beginning for Tribal Students, 1890s Scholarships, National Needs Fellowship, and Multicultural Scholars programs;

    b. Identify or develop an analytical approach that can effectively synthesize and assess the success of NIFA's investment;

c. Identify the key outcomes and impacts of the scholarship-fellowship portfolio and continuing workforce needs and gaps in food and agriculture sciences supported by the portfolio;

d. Provide a clearinghouse for (a) project outputs, data, and documents; and (b) showcase NIFA impacts on students and programs as recruitment tools; and

e. Include funds to support travel to USDA NIFA offices to work with National Program staff and USDA systems on the topic.

Program Area Priority Additional Information –

a. Projects must propose products that will be available for public disclosure.

b. All applications must include a project management plan and a data management plan that assures preservation of and ready access to information and outputs from the project.

c. Applications may include funds to support travel to USDA NIFA offices to work with National Program staff and USDA systems on the topic.

PART II—AWARD INFORMATION

A. Available Funding

This RFA solicits applications for two review cycles; one in 2021 and one in 2022. For the review cycle in 2021, funding from FY 2021 and FY 2022 appropriations will be used. For the review cycle in 2022, funding from FY 2022 and FY 2023 appropriations will be used. The anticipated amount available to support the AFRI program is approximately $45 million for each budget year.

This RFA is being released prior to the passage of an appropriations act for FY 2021, FY 2022, and FY 2023. Enactment of additional continuing resolutions or an appropriations act may affect the availability or level of funding for this program in FY 2021, FY 2022, and FY 2023.

Of the total amount available to make awards for the AFRI program, no less than 30 percent will be made available to fund integrated research, education, and extension projects. Of the AFRI funds allocated to research activities, no less than 60 percent will be directed toward grants for fundamental (or basic) research and 40 percent toward grants for applied research. Of the AFRI funds allocated to fundamental research, not less than 30 percent will be directed toward research by multidisciplinary teams. It is expected that no less than 15 percent of FY 2021, FY 2022, and FY 2023 funds will be made available for Food and Agricultural Science Enhancement (FASE) Grants, and no more than two percent of the funds available for fundamental research will be made available for Equipment Grants.

Of the anticipated approximately $45 million available for each fiscal year FY 2021, FY 2022 and FY 2023 to support the program areas in this RFA, no less than 11.25% will be made available for FASE grant types under the FASE program.

The funds will be awarded through a grant for performance periods of up to five years. NIFA may choose to issue a grant on a continuation basis. A continuation award is an award instrument by which NIFA agrees to support a specified level of effort for a predetermined period of time with a statement of intention to provide additional support at a future date, provided that performance has been satisfactory, appropriations are available for this purpose, and continued support would be in the best interest of the federal government and the public. There is no commitment by NIFA to fund any particular application or to make a specific number of awards.

The Automated Standard Applications for Payment System (ASAP), operated by the Department of Treasury's Bureau of the Fiscal Service, is the designated payment system for awards resulting from this RFA. For more information see the ASAP website.

B. Types of Applications

In 2021 and 2022, you may submit applications to one of the program areas in this RFA as one of two types of requests: (1) New Application or (2) Resubmitted Application.

    (1) <u>**New application**</u>. This is a project application that has not been previously submitted to NIFA. We will review all new applications to ensure they meet administrative requirements and all applications will be competitively evaluated by a review panel using criteria and selection processes described in **Part V**—Application Review Requirements.

    (2) <u>**Resubmitted application**</u>. This is an application that was submitted previously to NIFA but not funded. Project Directors (PDs) must respond to the previous review panel summary (see Response to Previous Review, Part IV, C of this RFA). We must receive resubmitted applications by the relevant due dates. We will evaluate resubmitted applications in competition with other pending applications in the appropriate program priority area to which they are assigned, and they will be reviewed according to the same evaluation criteria (Part V, B of this RFA) as new applications. A renewal application that was submitted previously but not funded and is being resubmitted is also considered as Resubmitted application; however, PDs must include a Progress Report (see "renewal application" above) and a Response to Previous Review. If you are resubmitting an application, enter the NIFA-assigned <u>proposal number</u> of the previously-submitted application in the Federal Identifier (Field 4.a. of the SF 424 (R&R) form).

C. Project Types and Grant Types

    1. **Project Types**. Applicants must propose one of the AFRI project types specified within the relevant program area descriptions in Part I, C of this RFA. Only project types specifically solicited under each program area or program area priority described in Part I, C of this RFA will be considered for review. A detailed description of the project types (Research, Education, Extension, and Integrated Research, Education and/or Extension) available across AFRI is located on the [AFRI RFA Resources page](#) ("AFRI Project Types" in the attachments list).

    2. **Grant Types.** Applicants must select the appropriate AFRI grant type specified within the relevant Program Area Descriptions in Part I, C of this RFA. Only grant types specifically solicited under each program area or program area priority described in Part I, C of this RFA will be considered for review. A detailed description of the grant types available across AFRI is located on the [AFRI RFA Resources page](#) ("AFRI Grant Types" in the attachments list).

D. Responsible and Ethical Conduct of Research

In accordance with sections 2, 3, and 8 of 2 CFR Part 422, institutions that conduct USDA-funded extramural research must foster an atmosphere conducive to research integrity, bear primary responsibility for prevention and detection of research misconduct, and maintain and

effectively communicate and train their staff regarding policies and procedures. In the event an application to NIFA results in an award, the Authorized Representative (AR) assures, through acceptance of the award that the institution will comply with the above requirements. Award recipients shall, upon request, make available to NIFA the policies, procedures, and documentation to support the conduct of the training. See NIFA's Responsible and Ethical Conduct of Research page for further information.

PART III—ELIGIBILITY INFORMATION

A. Eligible Applicants

Applications may only be submitted by eligible entities. Failure to meet an eligibility criterion by the application deadline may result in the application being excluded from consideration or, even though an application may be reviewed, will preclude NIFA from making an award.

Eligibility is linked to the project type as specified below.

1. **Research, Education or Extension Projects**
   Eligible applicants for single-function Research, Education or Extension Projects include:
   a) State Agricultural Experiment Station;
   b) colleges and universities (including junior colleges offering associate degrees or higher);
   c) university research foundations;
   d) other research institutions and organizations;
   e) Federal agencies;
   f) national laboratories;
   g) private organizations or corporations;
   h) individuals who are U.S. citizens, nationals, or permanent residents; and
   i) any group consisting of two or more entities identified in a) through h).
   Eligible institutions do not include foreign and international organizations.

2. **Integrated Projects**
   Eligible applicants for Integrated Projects include:
   a) colleges and universities;
   b) 1994 Land-Grant Institutions; and
   c) Hispanic-serving agricultural colleges and universities (see NIFA's Hispanic-Serving Agricultural Colleges and Universities page).

   For item a) under Integrated Projects, the terms "college" and "university" mean an educational institution in any state which
   i) admits as regular students only persons having a certificate of graduation from a school providing secondary education, or the recognized equivalent of such a certificate;
   ii) is legally authorized within such state to provide a program of education beyond secondary education;
   iii) provides an educational program for which a bachelor's degree or any other higher degree is awarded;
   iv) is a public or other nonprofit institution; and
   v) is accredited by a nationally recognized accrediting agency or association.
   A research foundation maintained by a college or university is eligible to receive an award under this program.

3. **Food and Agricultural Science Enhancement Grants**
   Part II, C(2) of this RFA contains the eligibility details for Food and Agricultural Science Enhancement (FASE) Grants. Note that under FASE program, New Investigator, Strengthening Standard, Strengthening Conference, Seed, Equipment and Sabbatical Grants are solicited in this RFA.

Applicants must respond to the program area priorities and deadlines found in Part I, C of this RFA. Grant recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project. Failure to meet an eligibility criterion by the application deadline may result in the application being excluded from consideration or, even though an application may be reviewed, will preclude NIFA from making an award (see Part III, B of this RFA).

B. Request for Determination of Status

1. Minority-Serving Institution
If an institution is applying for a Strengthening Grant (see Part II, C(2) of this RFA) and wants the Secretary to consider a group, beyond one included in the minority definition (see Part VIII, D of this RFA), then documentation (see below) must be submitted as part of the requestor's LOI (if required) and the full application package (Part IV, C of this RFA) by the applicable program area or program area priority deadline. The Secretary of Agriculture (or designated individual) will use the information in the documentation to determine whether the group or groups identified are qualified as a minority group for the purpose of receiving a Strengthening Grant under the FASE program (for Strengthening Grants information, refer to the [AFRI RFA Resources page](), "AFRI Grant Types" in the attachments list).

Documentation for the request for determination as a minority-serving institution must include the following and be provided in the order specified below:
   a. A description of each minority group being submitted for determination;
   b. Data or studies supporting this group's designation as a minority group; and
   c. Data indicating that enrollment of the minority group(s) exceeds 50 percent of the total enrollment at the academic institution, including graduate and undergraduate and full-and part-time students.

2. Multi-Campus Institution
All institutions grouped under one main campus as listed in Table 1 following Part VIII of this RFA, unless located in an Established Program to Stimulate Competitive Research (EPSCoR) state (listed in Part II, C(2) of this RFA), are excluded from eligibility for all strengthening funds. However, if any campus within a multi-campus listing can provide information demonstrating that it is administratively independent or has an independent accreditation, then the institution may petition for an exemption to this rule and request eligibility for strengthening funds. The LOI (if required) and the application must include a letter indicating how the institution is independent of the main campus, either through accreditation or administration, how the institution is eligible as a small and mid-sized or minority-serving institution due to enrollment, and total federal funds received for science and engineering research and development. The letter must be signed by the Authorized Representative (AR).

C. Cost Sharing or Matching

Matching funds requirements for AFRI programs included in this RFA may be found at 7 U.S.C. 3157 (b)(9)(A-C). If an applied **Research** (see Part VIII, D of this RFA) **or Integrated Project** with an applied research component, is commodity-specific and not of national scope, the grant recipient is required to match the USDA funds awarded on a dollar-for-dollar basis from non-federal sources with cash and/or in-kind contributions.

NIFA may waive the matching funds requirement based on submitted document (see Part IV, C(6) of this RFA), for a grant if we determine that:
   a. The results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or
   b. The project involves a minor commodity, the project deals with scientifically important research, and the grant recipient is unable to satisfy the matching funds requirement.

D. Center of Excellence

Pursuant to Section 7214 of the Agricultural Act of 2014 (Pub. L. 113-79), NIFA will recognize and provide priority in the receipt of funding to applications from "centers of excellence" that carry out research, extension, and education activities that relate to the food and agricultural sciences. NIFA held listening sessions in July 2014 and accepted written comments from stakeholders to inform NIFA's implementation of the COE provision. Information on COE provision, and frequently asked questions are available at the NIFA COE website.

A COE is composed of one or more of the following entities that provide financial or in-kind support to the COE.
   a) State agricultural experiment stations;
   b) Colleges and universities;
   c) University research foundations;
   d) Other research institutions and organizations;
   e) Federal agencies;
   f) National laboratories;
   g) Private organizations, foundations, or corporations;
   h) Individuals; or
   i) Any group consisting of two or more of the entities described in a) through h).

Part IV, C of this RFA contains additional requirements for COE consideration.

PART IV—APPLICATION AND SUBMISSION INFORMATION

A. Letter of Intent

If a program area or program area priority within this RFA requires a LOI (LOI), then a LOI is a prerequisite for submission of an application. Refer to the Program Area Descriptions beginning in Part I, C of this RFA for LOI deadlines for a specific program area or program area priority. For detailed guidance on LOI submission, see the AFRI RFA Resources page ("AFRI Letter of Intent Instructions" in the attachments list).

B. Electronic Application Package

Only electronic applications may be submitted via Grants.gov to NIFA in response to this RFA. We urge you to submit early to the Grants.gov system. For information about the pre-award phase of the grant lifecycle see the Grants.gov Pre-Award Phase page.

New Users of Grants.gov
Prior to preparing an application, we recommend that the Project Director/Principal Investigator (PD/PI) first contact an AR to determine if the organization is prepared to submit electronic applications through Grants.gov. If not (e.g., the institution/organization is new to the electronic grant application process through Grants.gov), then the one-time registration process must be completed **PRIOR** to submitting an application. It can take as long as two weeks to complete the registration process so it is critical to begin as soon as possible. In such situations, the AR should go to **"Register," in the top right corner of the Grants.gov web page (or go to** https://www.grants.gov/web/grants/register.html)**, for information on registering the institution/organization with Grants.gov.** Part II, 1 of the NIFA Grants.gov Application Guide contains detailed information regarding the registration process. Refer to item 2, below, to locate the "NIFA Grants.gov Application Guide."

Steps to Obtain Application Package Materials
To receive application materials:
   a. You must download and install a version of Adobe Reader compatible with Grants.gov to access, complete, and submit applications. For basic system requirements and download instructions, see https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html. Grants.gov has a test package that will help you determine whether your current version of Adobe Reader is compatible.

   b. To obtain the application package from Grants.gov, go to https://www.grants.gov/web/grants/applicants/search-opportunity-package.html and enter the funding opportunity number where appropriate

   Funding Opportunity Number for 2021: USDA-NIFA-AFRI-008121

   Funding Opportunity Number for 2022: Applicants considering applying to the 2022 review cycle should check the AFRI Foundational Program RFA webpage and www.grants.gov after February 3, 2022 for the 2022 Funding Opportunity Number and Application Kit, as well as for any programmatic change.

Click "Search". On the displayed page, click the corresponding link to continue. A Grant Application Package is tied to a particular funding opportunity. You may move the forms amongst different Grant Application Packages but you may ONLY submit an application to the particular funding opportunity to which the Grant Application Package is associated.

Contained within the application package is the "NIFA Grants.gov Application Guide." This guide contains an introduction and general Grants.gov instructions, information about how to use a Grant Application Package in Grants.gov, and instructions on how to complete the application forms.

If you require assistance to access the application package (e.g., downloading or navigating Adobe forms) **or submitting the application,** refer to resources available on the Grants.gov website (https://www.grants.gov/web/grants/support.html). Grants.gov assistance is also available at:

> Grants.gov customer support (https://www.grants.gov/web/grants/support.html)
> 800-518-4726 Toll-Free or 606-545-5035
> Business Hours: 24 hours a day, 7 days a week. Closed on federal holidays.
> Email: support@grants.gov
> Grants.gov iPortal (see https://grants-portal.psc.gov/Welcome.aspx?pt=Grants):
> Top 10 requested help topics (FAQs), Searchable knowledge base, self-service ticketing and ticket status, and live web chat (available 7:00 a.m. – 9:00 p.m. Eastern Time).
> Have the following information available when contacting Grants.gov:
>> i. Funding Opportunity Number (FON)
>> ii. Name of agency you are applying to
>> iii. Specific area of concern

C. Content and Form of Application Submission

Application and submission information including page limits and narrative font sizes for AFRI Foundational and Applied Science RFA applications are available at AFRI RFA Resources page ("2021-2022 AFRI EWD RFA Additional Information for Part IV, C" in the attachments list).

D. Submission Dates and Times

a. Full Application
Applications must be received by Grants.gov by **5:00 p.m. Eastern Time on the dates indicated in the Program Area Descriptions beginning in Part I, C**. Applications received after the deadline will normally not be considered for funding. A reference table of all AFRI deadlines is available on the website.

We recommend that you conduct an administrative review of the application before submission of it via Grants.gov to ensure that it complies with all preparation instructions.

An application checklist is included in Part VII of the NIFA Grants.gov Application Guide to assist with this review.

You should check the application for completeness. The application should be checked for the following required items, which must include:
- Project Summary/Abstract
- Project Narrative
- Bibliography & References Cited
- Logic Model for Integrated Projects (if applicable)
- Management Plan for Integrated Projects (if applicable)
- Data Management Plan
- Facilities & Other Resources
- Curriculum Vitae
- Conflict of Interest Lists
- Current and pending support
- Budget
- Budget Justification
- Felony and Tax Certification Form (if applicable)

This is not an exhaustive list of required items; it only serves to highlight items that may be overlooked. **Failure to include any of the three critical required documents of Project Summary/Abstract, Project Narrative, or Bibliography & References Cited sections as PDF attachment will result in the application not being reviewed or considered for funding by NIFA.**

Instructions for submitting an application are included in Part IV, Section 1.5 of the NIFA Grants.gov Application Guide.

If you have trouble submitting an application to Grants.gov, you should FIRST contact the Grants.gov Help Desk to resolve any problems. Keep a record of any such correspondence. See Part IV, B for Grants.gov contact information.

We send email correspondence to the AR regarding the status of submitted applications. We strongly encourage you to provide accurate email addresses, where designated, on the SF-424 R&R Application for Federal Assistance.

If the AR has not received correspondence **from NIFA** regarding a submitted application within 30 days of the established deadline, contact the Agency Contact identified in Part VII of the RFA and request the proposal number assigned to the application. **Failure to do so may result in the application not being considered for funding by the peer review panel. Once the application has been assigned a proposal number, you should cite this number on all future correspondence.**

E. Funding Restrictions

7 U.S.C. § 3310 limits indirect costs for the overall award to 30 percent of Total Federal Funds Awarded (TFFA) under a research, education, or extension grant. The maximum indirect cost rate allowed under the award is determined by calculating the amount of indirect costs using:

1) the sum of an institution's negotiated indirect cost rate and the indirect cost rate charged by subawardees, if any; or
2) 30 percent of TFFA (TFFA = Field K., Total Costs and Fee, on SF-424 R&R Budget).

The maximum allowable indirect cost rate under the award, including the indirect costs charged by the subawardee(s), if any, is the lesser of the two rates.

If the results of 1), is the lesser of the two, the grant recipient is allowed to charge the negotiated indirect cost rate on the prime award and the subaward(s), if any. Any subawards would be subject to the subawardee's negotiated indirect cost rate. The subawardee may charge its negotiated indirect cost rate on its portion of the award, provided the sum of the indirect cost rate charged under the award by the prime awardee and the subawardee(s) does not exceed 30 percent of the TFFA.

If the result of 2), is the lesser of the two, then the maximum indirect cost rate allowed for the overall award, including any subaward(s), is limited to 30 percent of the TFFA. That is, the indirect costs of the prime awardee plus the sum of the indirect costs charged by the subawardee(s), if any, may not exceed 30 percent of the TFFA.

In the event of an award, the prime awardee is responsible for ensuring the maximum indirect cost allowed for the award is not exceeded when combining indirect costs for the Federal portion (i.e., prime and subawardee(s)) and any applicable cost-sharing (see 7 CFR 3430.52(b)). Amounts exceeding the maximum allowable indirect cost is considered unallowable and will be handled accordingly. See sections 408 and 410 of 2 CFR 200.

Indirect costs are not allowed for equipment or conference grants.

See Part V, section 7.9 of the NIFA Grants.gov Application Guide for further indirect cost information.

You may not use grant funds awarded under this authority to renovate or refurbish research, education, or extension space; purchase or install fixed equipment in such place; or the plan, repair, rehabilitate, acquire, or construction of buildings or facilities.

F. Other Submission Requirements

You should follow the submission requirements noted in Part IV, Section 1.5 in the document entitled "NIFA Grants.gov Application Guide."

For information about the **status of a submitted application**, see Part III, Section 6 of the NIFA Grants.gov Application Guide.

Multiple submissions

In accordance with Part III, Section 5 of NIFA Grants.gov Application Guide, duplicate, essentially duplicate or predominantly overlapping applications submitted to one or more program areas within the AFRI (including FASE Grants) in any one fiscal year will not be reviewed. In addition, applicants may not submit to AFRI an application that is considered duplicate, essentially duplicate, or predominantly overlapping with an application submitted to another NIFA program in the same fiscal year.

PART V—APPLICATION REVIEW REQUIREMENTS

A. General

NIFA evaluates each application in a two-part process. First, we screen each application to ensure that it meets the administrative requirements as set forth in this RFA. Second, a scientific peer-review process will be used to technically evaluate applications that meet the administrative requirements using a review panel (see NIFA Peer Review Process).

Scientific Peer Review Process:
NIFA selects reviewers for the review panel based upon their training and experience in relevant scientific, extension, or education fields, taking into account the following factors:
- the level of relevant formal scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension activities;
- the need to include experts from various areas of specialization within relevant scientific, education, or extension fields;
- the need to include other experts (e.g., producers, range or forest managers/operators, and consumers) who can assess relevance of the applications to targeted audiences and to program needs;
- the need to include experts from a variety of organizational types (e.g., colleges, universities, industry, state and Federal agencies, and private profit and non-profit organizations) and geographic locations;
- the need to maintain a balanced composition with regard to minority and female representation and an equitable age distribution; and
- the need to include reviewers who can judge the effective usefulness of each application to producers and the general public.

After each peer review panel has completed its deliberations, the responsible program staff of NIFA will recommend that your project is either approved for support from currently available funds or declined due to insufficient funds or unfavorable review.

NIFA reserves the right to negotiate with the PD/PI and/or the submitting organization or institution regarding project revisions (e.g., reductions in the scope of work, funding level, period, or method of support) prior to recommending any AFRI project for funding.

After the review process has been completed, NIFA sends copies of reviews, _not_ including the identity of reviewers, and a summary (if applicable) of the review panel comments to the PD.

B. Evaluation Criteria

A reviewer's written evaluation entails two levels of assessment. First, the reviewer summarizes how well the application addressed each evaluation criterion. After the application has been assessed for strengths and weaknesses of each criterion, the reviewer then evaluates the overall likelihood that the project will have significant outcome and impact. The written reviews are used to begin panel discussions with other reviewers serving on the peer review panel. Through these discussions, peer review panelists come to consensus on the final ranking of the applications. A

complete description of NIFA's peer review process can be found at the NIFA Peer Review Process for Competitive Grant Applications page.

Detailed evaluation criteria for each project types, grant types, exploratory research projects and centers of excellence are found at the AFRI RFA Resources page ("AFRI Review Criteria" in the attachments list). We will use the appropriate evaluation criteria to review applications submitted in response to this RFA.

C. Conflicts of Interest and Confidentiality

During the peer evaluation process, we take extreme care to prevent any actual or perceived conflicts of interest that may impact review or evaluation. See the NIFA Peer Review Process for Competitive Grant Applications page for further information about conflicts of interest and confidentiality as related to the peer review process.

D. Organizational Management Information

Specific management information relating to an applicant shall be submitted one-time, with updates on an as-needed basis. This requirement is part of the responsibility determined prior to the award of a grant identified under this RFA, if such information has not been provided previously under this or another NIFA program. We will provide you copies of forms recommended for use in fulfilling these requirements as part of the pre-award process. Although an applicant may be eligible based on its status as one of these entities, there are factors that may exclude an applicant from receiving federal financial and nonfinancial assistance and benefits under this program (e.g., debarment or suspension of an individual involved or a determination that an applicant is not responsible based on submitted organizational management information).

E. Application Disposition

An application may be withdrawn at any time before a final funding decision is made regarding the application. Each application that is not selected for funding, including those that are withdrawn, will be retained by the agency for a period of three years.

PART VI—AWARD ADMINISTRATION

A. General

Within the limit of funds available for such purpose, the NIFA awarding official shall make grants to those responsible, eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. The date specified by the NIFA awarding official as the effective date of the grant shall be no later than September 30 of the federal fiscal year in which the project is approved for support and funds are appropriated for such purpose, unless otherwise permitted by law. The project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by NIFA under this RFA may be used only for the purpose for which they are granted in accordance with the approved application and budget, regulations, terms and conditions of the award, applicable federal cost principles, USDA assistance regulations, and NIFA General Awards Administration Provisions at 7 CFR part 3430, subparts A through E.

B. Award Notice

The award document will provide pertinent instructions and information including, at a minimum, the information described in 2 CFR 200.211.

See NIFA's Terms and Conditions page to view current NIFA award terms and conditions.

C. Administrative and National Policy Requirements

Several federal statutes and regulations apply to grant applications considered for review and to project grants awarded under this program. These may include, but are not limited to, the ones listed on NIFA's Federal Regulations page.

NIFA Federal Assistance Policy Guide—a compendium of basic NIFA policies and procedures that apply to all NIFA awards, unless there are statutory, regulatory, or award-specific requirements to the contrary—is available at NIFA's Policy Guide page.

D. Responsible and Ethical Conduct of Research

Refer to Part II, D for more information.

E. Expected Program Outputs and Reporting Requirements

The output and reporting requirements are included in the award terms and conditions (see NIFA's Terms and Conditions page for information about NIFA award terms). If there are any program or award-specific award terms, they will be identified in the award.

PART VII—AGENCY CONTACTS

For general questions related to the AFRI Programs, applicants and other interested parties are encouraged to contact:

AFRI Program Office:
Dr. Parag Chitnis, Associate Director, National Institute of Food and Agriculture
Dr. Debora Hamernik, Deputy Director, Institute of Food Production and Sustainability
Dr. Timothy Conner, Acting Deputy Director, Institute of Food Safety and Nutrition
Dr. Suresh Sureshwaran, Acting Deputy Director, Institute of Youth, Family, and Community
Dr. Timothy Conner, Acting Deputy Director, Institute of Bioenergy, Climate, and Environment
       Telephone: (816) 926-1604
       E-mail: AFRI@usda.gov

Specific questions pertaining to technical matters may be directed to the appropriate Program Area Priority Contacts:

Table 1: Program Area Priority Contacts

Program Area Priority	Program Area Priority Contact
Professional Development for Agricultural Literacy (PDAL) Grants	Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov
Agricultural Workforce Training (AWT) Grants	Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov
Food and Agricultural Non-formal Education (FANE)	Dr. Maurice Smith, Jr., maurice.smith2@usda.gov ; Dr. Suzanne Stluka, (816) 908-3305 or suzanne.stluka@usda.gov; Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov
Research and Extension Experiences for Undergraduates (REEU)	Dr. Ray Ali, (816) 926-1453 or nifa-education@usda.gov
Predoctoral Fellowships	Dr. Ray Ali, (816) 926-1453 or nifafellows@usda.gov
Postdoctoral Fellowships	Dr. Ray Ali, (816) 926-1453 or nifafellows@usda.gov
Agricultural Literacy and Workforce Development Evaluation	Dr. Carlos Ortiz, (202) 445-5594 or carlos.ortiz@usda.gov

For administrative questions related to
- Grants.gov, see Part IV of this RFA
- Other RFA or application questions, please email policy@usda.gov
- Awards under this RFA, please email awards@usda.gov

- **U.S. Postal Mailing Address:**
  National Institute of Food and Agriculture
  U.S. Department of Agriculture
  P.O. Box 419205, MS 10000
  Kansas City, MO 64141-6205

- **Courier/Package Delivery Address:**
  National Institute of Food and Agriculture
  United States Department of Agriculture
  2312 East Bannister Road, MS 10000
  Kansas City, MO 64141-3061

PART VIII—OTHER INFORMATION

A. Use of Funds; Changes

1. Delegation of Fiscal Responsibility
Unless the terms and conditions of the award state otherwise, awardees may not in whole or in part delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of award funds.

2. Changes in Budget or Project Plans
In accordance with 2 CFR 200.308, awardees must request prior approval from NIFA for the following program or budget-related reasons:

(i) Change in the scope or the objective of the project or program (even if there is no associated budget revision requiring prior written approval).
(ii) Change in a key person specified in the application or the federal award.
(iii) The disengagement from the project for more than three months, or a 25 percent reduction in time devoted to the project, by the approved project director or principal investigator.
(iv) The inclusion, unless waived by the federal awarding agency, of costs that require prior approval in accordance with 2 CFR 200 Subpart E—Cost Principles of this part or 45 CFR Part 75 Appendix IX, "Principles for Determining Costs Applicable to Research and Development under Awards and Contracts with Hospitals," or 48 CFR Part 31, "Contract Cost Principles and Procedures," as applicable.
(v) The transfer of funds budgeted for participant support costs as defined in §200.75 Participant support costs to other categories of expense.
(vi) Unless described in the application and funded in the approved federal awards, the subawarding, transferring or contracting out of any work under a federal award, including fixed amount subawards as described in §200.333 Fixed amount subawards. This provision does not apply to the acquisition of supplies, material, equipment, or general support services.
(vii) Changes in the approved cost sharing or matching provided by the non-federal entity.
(viii) The need arises for additional Federal funds to complete the project.

The awardee will be subject to the terms and conditions identified in the award. See NIFA's Terms and Conditions page for information about NIFA award terms.

B. Confidential Aspects of Applications and Awards

When an application results in an award, it becomes a part of the record of NIFA transactions, available to the public upon specific request. Information that the Secretary of Agriculture determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the application. We will retain for three years a copy of an application that does not result in an award. Such an application will be released only with the consent of the applicant or to the extent

required by law. An application may be withdrawn at any time prior to the final action thereon.

C. Regulatory Information

This program is not subject to the provisions of the Executive Order 12372, which requires intergovernmental consultation with state and local officials.

Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the collection of information requirements contained in this notice have been approved under OMB Document No. 0524-0039.

D. Definitions

Please refer to [7 CFR 3430, Competitive and Noncompetitive Non-formula Financial Assistance Programs--General Award Administrative Provisions](#), for applicable definitions for this NIFA grant program.

For the purpose of this program, the following additional definitions are applicable:

Applied Research means research that includes expansion of the findings of fundamental research to uncover practical ways in which new knowledge can be advanced to benefit individuals and society.

Food and Agricultural Science Enhancement (FASE) Grants mean funding awarded to eligible applicants to strengthen science capabilities of Project Directors, to help institutions develop competitive scientific programs, and to attract new scientists into careers in high-priority areas of National need in agriculture, food, and environmental sciences. FASE awards may apply to any of the three agricultural knowledge components (i.e., research, education, and extension). FASE awards include Pre and Postdoctoral Fellowships, New Investigator grants, and Strengthening grants.

Limited institutional success means institutions that are not among the most successful universities and colleges for receiving Federal funds for science and engineering research. A list of successful institutions is provided on [AFRI RFA Resources page](#) ("Table 2 Least Successful Institutions" in the attachments list).

Minority-serving institution means an accredited academic institution whose enrollment of a single minority or a combination of minorities exceeds fifty percent of the total enrollment, including graduate, undergraduate, and full- and part-time students. An institution in this instance is an organization that is independently accredited as determined by reference to the current version of the *Higher Education Directory*, published by Higher Education Publications, Inc., 6400 Arlington Boulevard, Suite 648, Falls Church, Virginia 22042 (703-532-2300).

Minority means Alaskan Native, American Indian, Asian-American, African-American, Hispanic American, Native Hawaiian, or Pacific Islander. The Secretary will determine on a

case-by-case basis whether additional groups qualify under this definition, either at the Secretary's initiative, or in response to a written request with supporting explanation.

Multidisciplinary project means a project on which investigators from two or more disciplines collaborate to address a common problem. These collaborations, where appropriate, may integrate the biological, physical, chemical, or social sciences.

Small and mid-sized institutions are academic institutions with a current total enrollment of 17,500 or less including graduate, undergraduate, and full- and part-time students. An institution, in this instance, is an organization that possesses a significant degree of autonomy. Significant degree of autonomy is defined by being independently accredited as determined by reference to the current version of the *Higher Education Directory*, published by Higher Education Publications, Inc., 6400 Arlington Boulevard, Suite 648, Falls Church, Virginia 22042 (703-532-2300).

Strengthening Grants mean funds awarded to institutions eligible for FASE Grants to enhance institutional capacity, with the goal of leading to future funding in the project area, as well as strengthening the competitiveness of the investigator's research, education, and/or extension activities. Strengthening grants consist of Standard, Coordinated Agricultural Project and Conference Grant types as well as Seed Grants, Equipment Grants, and Sabbatical Grants.

Transdisciplinary Team is composed of investigators from multiple disciplines that cross boundaries using holistic approaches to address complex challenges that cannot be solved using single-disciplinary approaches.

USDA EPSCoR States (Established Program to Stimulate Competitive Research) mean States which have been less successful in receiving funding from AFRI, having a funding level no higher than the 38th percentile of all States based on a 3-year average of AFRI funding levels, excluding FASE Strengthening funds granted to state agricultural experiment stations and degree-granting institutions in EPSCoR States and small, mid-sized, and minority-serving degree-granting institutions. The most recent list of USDA EPSCoR States is provided at AFRI RFA Resources page ("AFRI Grant Types" in the attachments list).

E. Materials Available on the Internet

AFRI program information will be made available on the NIFA AFRI website. The following are among the materials available on the NIFA website:
   1. Stakeholder Input
   2. Requests for Applications
   3. AFRI Abstracts of Funded Projects
   4. AFRI Annual Synopsis
   5. Frequently Asked Questions
   6. Interagency Programs

Most Successful Universities and Colleges
Any institution listed on this list, Most Successful Universities and Colleges Receiving Federals Funds, is not eligible for Strengthening Grants from the FASE program unless they are located in an EPSCoR state. See the [AFRI RFA Resources page](#), "Table 1 Most Successful Institutions" in the attachments list.

Lowest One Third of Universities and Colleges Receiving Federal Funds
The lowest one third of universities and colleges receiving Federal funds is used to determine eligibility for possible waiver of matching funds requirement for Equipment Grants (see the [AFRI RFA Resources page](#), "Table 2 Least Successful Institutions" in the attachments list).

Flow Chart for Strengthening Grant Eligibility
The Flow Chart for Strengthening Grant Eligibility will help to determine your eligibility to apply for strengthening grants (see the [AFRI RFA Resources page](#), "FASE Strengthening Grant Eligibility Flow Chart" in the attachments list).

List of AFRI Deadlines
A table with the LOI and application deadlines for all 2021 and 2022 program area priorities is available on the [AFRI Deadlines page](#).