The following details Part IV C of the Education and Workforce Development Request for Applications for FY 2019 and FY 2020

February 26, 2020: Update Academic Standing dates for pre- and postdoctoral applications (pages 43-44).
Update Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants (pages 7, 18, 32, 45).

Note that the required content and forms for applications vary by the program areas described in this RFA. See the noted page of this section for relevant details:

- Agricultural Workforce Training Grants – beginning on page 2 below.
- Professional Development for Agricultural Literacy – beginning on page 12 below.
- Research and Extension Experiences for Undergraduates – beginning on page 23 below.
- Pre- and Post-doctoral Fellowships – beginning on page 37 below.

PART IV—APPLICATION AND SUBMISSION INFORMATION
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C. Content and Form of Application Submission

Electronic applications are to be prepared following Parts V and VI of the NIFA Grants.gov Application Guide. This guide is part of the corresponding application package (see Section A of this part). The following is **additional information** needed to prepare an application in response to this RFA. **If there is a discrepancy between the RFA and the NIFA Grants.gov Application Guide, the information contained in the RFA and this document overrides the NIFA Grants.gov Application Guide.**

Note the attachment requirements (e.g., PDF) in Part III, 3 of the NIFA Grants.gov Application Guide. ANY PROPOSALS THAT ARE NON-COMPLIANT WITH THE REQUIREMENTS (e.g., content format, PDF file format, file name restrictions, and no password protected files) WILL BE AT RISK OF BEING EXCLUDED FROM NIFA REVIEW. Grants.gov does not check for NIFA required attachments or that attachments are in PDF format; see Part III, 6.1 of the NIFA Grants.gov Application Guide for how to check the manifest of submitted files. Partial applications will be excluded from NIFA review. We will accept subsequent submissions of an application until close of business on the closing date in the RFA (see Part V, 2.1 of the NIFA Grants.gov Application Guide for further information).

For any questions related to the preparation of an application, review the NIFA Grants.gov Application Guide and the applicable RFA. If assistance is still needed for preparing application forms content, contact:

- Email: electronic@usda.gov
- Business hours: Monday through Friday, 7 a.m. – 5 p.m. ET, excluding federal holidays.

Agricultural Workforce Training Grants

For Agricultural Workforce Training Grant applications, follow the instructions below:

1. SF 424 R&R Cover Sheet
Information related to this form are explained in detail in Part V, 2 of the NIFA Grants.gov Application Guide. See Part V, 2.18 of the NIFA Grants.gov Application Guide for the required certifications and assurances (e.g., Prohibition Against Entities Requiring Certain Internal Confidentiality Agreements).

2. SF 424 R&R Project/Performance Site Location(s)
Detailed information related to the questions on this form is dealt with in detail in Part V, 3 of the NIFA Grants.gov Application Guide.

3. R&R Other Project Information
Detailed information related to the questions on this form is dealt with in detail in Part V, 4 of the NIFA Grants.gov Application Guide.

a. Field 7. Project Summary/Abstract – PDF Attachment. Title the attachment as 'Project Summary' in the document header and save file as 'ProjectSummary'.

The summary should explain the relevance of the project to the goals of the Program Area or Program area Priority within this RFA to which the application is submitted. See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

The following instructions are in addition to those included in Part V, 4.7 of the NIFA Grants.gov Application Guide.

The Project Summary must indicate the following:

i) Project title;
ii) Indicate the primary AFRI Farm Bill Priority area focus of the project by selecting one of the following:
    - Plant health and production and plant products;
    - Animal health and production and animal products;
    - Food safety, nutrition, and health;
    - Bioenergy, natural resources, and environment;
    - Agriculture systems and technology; or
    - Agriculture economics and rural communities.
iii) Project duration;
iv) Principal Investigator;
v) Submitting organization;
vi) Other organizations involved in the project;
vii) Location(s) (colleges, businesses, etc.) at which the proposed activities will occur;
viii) Number of participants per year; and
ix) If any international component included.

In addition to the information requested above, please provide a 250-word abstract. The abstract should briefly describe the project's objectives, activities, participants to be recruited (if applicable), and intended impact. The abstract should also include the relevance of the project to the goals of the Agricultural Workforce Training program area.

b. Field 8. Project Narrative – PDF Attachment. Title the attachment as 'Project Narrative' in the document header and save file as 'ProjectNarrative'.

The Project Narrative may **not exceed ten-pages** of written text with 12-point font and line spacing not exceeding six lines of text per vertical inch, including all figures and tables.

To ensure fair and equitable competition, applications exceeding the applicable page limitation will be returned without review.

The Project Narrative must include all of the following:

1) **Response to Previous Review (only applies to Resubmitted Applications (see Part II. B.)**
   The Project Narrative attachment should include two components:
   a) one-page response to the previous review (containing the previous proposal number in the first line) titled "Response to Previous Review" as the first page of the attachment and b) the Project Narrative below). The one-page "Response to Previous Review" does not count against the Project Narrative page limit.
2) **Global Engagement (if applicable)**
   You must describe the indicators you will use to assess proposed international activities (e.g., partnerships, exchanges, travel); see Part I, B. Appropriate indicators include, but are not limited to, those posted at the U.S. government's Feed the Future global food security initiative website. For additional information see Global Engagement Programs resource page on the NIFA website, including a resource section that contains various guidance documents for NIFA applicants.

Project Narrative:

3) **Overview**
   a) Provide a brief description of the objectives of the program to be developed. The AFRI Priority area(s) and workforce need being addressed; the anticipated project audience; and the project's target objectives.
   b) Project Justification: Summarize the body of knowledge justifying the need for the proposed project. Describe any ongoing or recently completed, significant activities related to the proposed project.
4) **Approach**
   a) Curriculum Development Mechanisms
      1) Describe what elements of curriculum development for workforce training the project will pursue. (Curriculum development can include and is not limited to creation of curriculum and instructional delivery systems,

pilot testing/implementation of curriculum and delivery methods, development of assessment tools, and evaluation).

2) Innovation: Describe the proposal's creative approach to agricultural workforce training. Using either actual experiences or literature, show why you selected this approach.

b) Plan of Operation and Methodology:

1) Applications should provide detailed descriptions of the research, education and/or extension activities that will be pursued. This discussion should indicate how these activities will lead to enhanced agricultural workforce training. The review process will give preference to projects that will catalyze and result in the implementation of self-sustaining models for agricultural workforce training.

2) Describe procedures for accomplishing the objectives of the project. Describe plans for management of the project to ensure its proper and efficient administration. Describe the way in which resources and personnel will be used to conduct the project.

3) Timetable: Identify all important project milestones (performance targets that indicate when project goals will be met) and dates as they relate to project start-up, execution, evaluation, dissemination, and closeout.

c) (If applicable) Recruitment, Selection, and Continued Support for Participants. The recruitment plan should be described with as much specificity as possible. How will participants be recruited? What criteria will be used to select participants? How will participants who terminate the program early, be replaced? What additional support will be provided to participants after the termination of the project?

5) The Research, Education and/or Extension Environment

a) Describe the experience of the key personnel in providing quality agricultural workforce training.

b) Institutional Support/Partnerships. Fully describe the institutional climate for the proposed training. How does the proposed project align with and contribute to the applicant and partner institutions' goals for enhancing workforce training in their community/state/region? Projects that involve partnerships with local government, economic development organizations, and workforce-focused nonprofit organizations are encouraged.

c) Describe the environment of the host site(s), including, but not limited to, physical plan(s), accommodations for participants with disabilities, accessibility, location(s) of proposed activities, etc.

6) Project Evaluation and Reporting

a) Clearly define a plan with a timeline to extensively evaluate the project using formative and summative assessment tools that can help inform future implementations of workforce training programs. Identify pitfalls and limitations to proposed approaches and how these will be addressed.

b) As applicable, define the approach for evaluating participant outcomes.

7) **Expected Outputs**
Please use the format provided below. Expected Outputs table does not count against the ten-page limit of the Project Narrative.

Total expected outputs during grant period	Expected Number
1. Number of products to be developed through grant funds during the grant period (i.e., curricula, academic programs, recruitment/retention programs, materials, experiential learning opportunities)	
2. Number of faculty supported by this grant for professional development during the grant period: participation in sabbaticals, workshops, conferences, etc.	
3. Number of students who will indirectly benefit from the products produced from the grant during the grant period (i.e., using the curriculum/instrumentation, enrolled in the program, recruited or retained but not paid by the grant using scholarships, fellowships and assistantships).	

c. Field 9. Bibliography & References Cited – PDF Attachment. No Page Limit. Title the attachment as 'Bibliography & References Cited' in the document header and save file as 'BibliographyReferencesCited'.

All work cited in the text should be referenced in this section of the application. All references must be complete; include titles and all co-authors; conform to an acceptable journal format; and be listed in alphabetical order using the last name of the first author or listed by number in the order of citation.

d. Field 10. Facilities & Other Resources – PDF Attachment. No Page Limit. Title the attachment as 'Facilities & Other Resources' in the document header and save file as 'FacilitiesOtherResources'.

e. Field 11. Equipment – PDF Attachment. No Page Limit. Title the attachment as 'Equipment' in the document header and save file as 'Equipment'.

Describe available equipment. Items of nonexpendable equipment necessary to conduct and successfully complete the proposed project should be listed in Field C. of the R&R Budget and described in the Budget Justification (see Part IV, C. 6 below).

f. Field 12. Other Attachments
The following instructions are in addition to those noted in Part V 4.12 of the NIFA Grants.gov Application Guide

1) Key Personnel Roles – **PDF Attachment. 2-Page Limit.** Title the attachment as 'Key Personnel' and save file as 'KeyPersonnel'.

Clearly describe the roles and responsibilities of the PD, collaborator(s), etc. (biographical sketches for key personnel including mentor(s) should not be included here). If it will be necessary to enter into formal consulting or collaborative arrangements with others, such arrangements should be fully explained and justified. Evidence (letters of support) for this type of collaboration should be provided in the 'Documentation of Collaboration' attachment (see item 5) below).

2) Logic Model – **PDF Attachment. 2-Page Limit. Required for <u>all</u> Integrated Project applications. Encouraged for Research, Education, or Extension Project applications.** Title the attachment as 'Logic Model' and save file as 'LogicModel'.

   Include the elements of a logic model detailing the activities, outputs, and outcomes of the proposed project. The logic model planning process is a tool that should be used to develop your project before writing your application. This information may be provided as a narrative or formatted into a logic model chart. For more information and resources, see the Integrated Programs' Logic Model Planning Process at the NIFA website.

   Failure to include a logic model may result in the application <u>not</u> being considered for review.

3) Management Plan – **PDF Attachment. 3-Page Limit. Required for Integrated Project applications. Encouraged for Research, Education, or Extension Project applications.** Title the attachment as 'Management Plan' and save file as 'ManagementPlan'.

   The plan is to be clearly articulated and include an organizational chart, administrative timeline, and a description of how the project will be governed, as well as a strategy to enhance coordination, collaboration, communication, and data sharing and reporting among members of the project team and stakeholder groups. The plan must also address how the project will be sustained beyond termination of an award.

   The management plan must also include an advisory group of principal stakeholders, partners, and professionals to assess and evaluate the quality, expected measurable outcomes, and potential impacts for the proposed research, education and/or extension. Please include rationale for their role, and how they will function effectively to support the goals and objectives of the project. The plan must demonstrate how partners and stakeholders contribute to project assessment on an annual basis.

4) Data Management Plan (DMP) – **PDF Attachment. 2-Page Limit. Required for Research, Education, Extension, or Integrated Project applications.** Title the attachment as 'Data Management Plan' and save file as 'DataManagementPlan'**.**

   Clearly articulate how the project director (PD) and co-PDs plan to manage and disseminate the data generated by the project. The DMP will be considered during

the merit review process (see Part V, B.). **See Part III, 3.1 of the NIFA Grants.gov Application Guide for NIFA attachment specifications.**

For the guidelines on preparation and inclusion of a DMP in your application, see Data Management Plan for NIFA-Funded Research, Education and Extension Projects at NIFA website. Also included on the web page are FAQs and information about accessing examples of DMPs. In addition, general guidelines for Data Management Planning for USDA agencies are available at the National Agricultural Library website.

5) Documentation of Collaboration – **PDF Attachment. No Page Limit.** Title the attachment as 'Documentation of Collaboration' in the document header and save file as 'Collaboration'.

   Include evidence of collaboration and contributions amongst the host institution and partners.

   Evidence, *e.g.*, letter(s) of support, must be provided that the collaborators involved have agreed to render services. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application.

6) Preprints – **PDF Attachment. Limited to 2 preprints.** Title the attachment as 'Preprints' in the document header and save file as 'Preprints'.

   Preprints related to the Project Narrative are allowed if they are directly germane to the proposed project. Information may not be appended to an application to circumvent page limitations prescribed for the Project Narrative. Extraneous materials will not be used during the peer review process. Only manuscripts in press for a peer- reviewed journal will be accepted and must be accompanied by letters of acceptance from the publishing journals. Preprints attached in support of the application must be single-spaced. Each preprint must be identified with the name of the submitting organization, the name(s) of the PD(s), and the title of the application.

7) Minority-Serving Institution Documentation – **PDF Attachment (Optional: May be needed if applying for FASE Strengthening Standard Grant).** Title the attachment as 'Minorityinfo' in the document header and save file as 'Minorityinfo'.
   (a) Letter identifying percentage of applicable minority students.
   (b) Request for Determination of Status– see Part III, B.

8) Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants – **PDF Attachment.** This is required for corporate applicants. See Part VI, 2 of the NIFA Grants.gov Application Guide for a description of the term, "corporation."

4. R&R Senior/Key Person Profile (Expanded)
Detailed information related to the questions on this form is available in Part V, 5 of the NIFA Grants.gov Application Guide. This section of the guide includes instructions about the people who require senior/key person profile, and details about the biographical sketch and the current and pending support, including a link to the suggested template for the current and pending support.

A Senior/Key Person Profile must be completed for the PD and each co-PD, senior associate, and other professional personnel, including collaborators playing an active role in the project. Collaborators only providing services or materials should not be listed in the R&R Senior/Key Person Profile. Evidence (letters of support) for this type of collaboration should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5).

a) **Project Role Field** – Complete appropriately.

b) **Other Project Role Category Field** – Complete appropriately, if applicable.

c) **Attach Biographical Sketch Field – PDF Attachment. 2-Page Limit** (excluding publications listings) per PD, co-PD, senior associate, and other professional personnel. Title the attachment as 'Biographical Sketch' in the document header and save file as 'BiographicalSketch' followed by the last name of the PD or co-PD such that each biographical sketch file in the application has a distinct file name.

The Biographical sketch of the applicant (PD) and each co-PD, senior associate, and other professional personnel must be included. In addition, include:

1) Author identifier (ORCID, https://orcid.org) of the researcher if available.
2) Digital Object Identifier (DOI) of all publications where possible.

If applicable, the application must include a list of data publications or published data products relevant to the proposed project, following recommended data citation format.
In addition, Biographical sketch must include:

a. A presentation of academic, extension, and/or research credentials including, as applicable: earned degrees, teaching experience, employment history, professional activities, honors and awards, and grants received; and
b. Indicate the number of continuing education courses developed and taught/trained the number of educators by the applicant.
c. Include all relevant publications in refereed journals during the past four (4) years including those in press.

The Conflict of Interest list must not be included in the biographical sketch, but it must be provided as a separate document (see Part IV, C. 7. b for more information).

d) ***Attach Current and Pending Support Field*** **– PDF Attachment. No Page Limit.** Title the attachment as 'Current and Pending Support' in the document header and save file as 'CurrentPendingSupport'.

Here is a suggested template for the Current and Pending Support.

Current and Pending Support information is only required for each senior /key person identified. Note: Even if no other funding is currently reported under the 'Active' section of this attachment, each senior/key person must list this grant application under the 'Pending' section of this attachment.

As an addendum to the Current and Pending Support, provide a brief summary for any completed, current, or pending projects that appear similar to the current application.

5. R&R Personal Data

As noted in Part V, 6 of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award. Part V.6 also notes the importance and use of the information.

6. R&R Budget

Detailed Information related to the questions on this form is available in Part V, 7 of the NIFA Grants.gov Application Guide.

Matching funds.
If a funded project is commodity-specific and not of national scope, the grant recipients required to match the NIFA funds awarded on a dollar-for-dollar basis from non-federal sources with cash and/or in-kind contributions.

If you conclude that matching funds are not required as specified under Part III, C., Cost Sharing or Matching, you must include an explanation for your conclusion in the Budget Justification. We will consider this justification when determining final matching requirements or if required matching can be waived. NIFA retains the right to make final determinations regarding matching requirements.

For grants that require matching funds as specified under Part III, B, the Budget Justification must list matching sources along with the identification of the entity(ies) providing the match as well as the total dollar amount being pledged. NIFA is no longer requiring written verification of commitments of matching support (a pledge agreement). However, you are still subject to documentation, valuing and reporting requirements, etc. as specified in 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (the Uniform Guidance)," 7 CFR 3430, "Competitive and Noncompetitive Non-Formula Federal Assistance Programs – General Award Administrative Provisions," and program-specific regulations, as applicable. In instances where match is required, any resulting award will require the signature of an Authorized Representative. Only when NIFA receives the award signed by the AR will award funds be released and available for drawdown.

The sources and the amount of all matching support from outside the applicant organization must be summarized on a separate page and placed in the application

immediately following the Budget Justification. All pledge agreements must be placed in the application immediately following the summary of matching support.

Establish the value of applicant contributions in accordance with applicable cost principles. Refer to 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," for further guidance and other requirements relating to matching and allowable costs.

a. Budget Periods. Applications must contain a budget for each budget period for the entire duration of the proposed project. Annual and cumulative budgets are required.

If an application is funded, the Project Director will be required to attend one Project Directors' meeting in Washington, DC during the performance period of the award. Reasonable travel expenses should be included as part of the project budget.

See Part I, C. for limitation of budget amounts, use of funds, and budget periods.

- Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project specific activities.
- For Integrated Project Applications, projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component. Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project-specific activities.

Subcontract Arrangements. If it will be necessary to enter into a formal subcontract agreement with another institution, then refer to the following items.

- Letters of commitment (including proposed amount of subaward) and statement of work are required to be included in the application for each subaward. Letters of commitment are to be included in Field 12, Other Attachments of the R&R Other Project Information.
- If the cumulative amount for subawards exceeds 50 percent of the total Federal funds requested or in instances where the proposed subaward is to a Federal agency, then the applicant must provide budgetary detail (i.e., budget and budget justification) for each subaward. If this is the case then refer to Part V, 8 of the NIFA Grants.gov Application Guide for instructions on how to include this information as part of the application.

b. Field H. Indirect Costs –

Section 1462(a) and (c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) 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 sub-awardees, if any; or
2) 30 percent of TFFA.

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

If the results of number one, is the lesser of the two rates, the grant recipient is allowed to charge the negotiated indirect cost rate on the prime award and the sub-award(s), if any. Any sub-awards would be subject to the sub-awardee's negotiated indirect cost rate. The sub-awardee 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 sub-awardee(s) does not exceed 30 percent of the TFFA.

If the result of number two, is the lesser of the two rates, then the maximum indirect cost rate allowed for the overall award, including any sub-award(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 sub-awardee(s), if any, may not exceed 30 percent of the TFFA.

c. *Field K. Budget Justification* – PDF Attachment. No Page Limit. Title the attachment as 'Budget Justification' in the document header and save file as 'BudgetJustification'.

All cumulative budget categories, with the exception of Indirect Costs, for which support is requested must be individually listed (with costs) in the same order as the cumulative budget. If consulting, collaborative, or subcontractual arrangements are included in the application, these arrangements should be fully explained and justified. The rate of pay for any consultant must be included, if known at the time of application. Please include a cost breakdown for the consultant, including the number of days in service, travel, and per diem, as well as the rate of pay. Letters of consent or collaboration signed by the Authorized Representative and other evidence should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5) to show that collaborators have agreed to participate. A proposed statement of work, biographical sketch, and a budget for each arrangement involving the transfer of substantive programmatic work or the provision of financial assistance to a third party must be supplied. Allowable expenditures must be appropriately discussed in the budget justification. In multi-institutional applications, a budget and budget narrative must be included for each institution involved. The lead institution and each participating institution must be identified.

- *For Integrated Project Applications* – Each function should be represented by one or more objectives within the application. Projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component.

7. Supplemental Information Form
Instructions related to this form are explained in detail in Part VI, 1 of the NIFA Grants.gov Application Guide.

a. **Field 2. Program to which you are applying –** Enter the Program Code Name and the Program Code for the Program Area to which you are applying from the information provided in the Program Area Descriptions beginning in Part I, C. An application can only be submitted to one program area. Note that accurate entry of the Program Area Code Name and Program Area Code is extremely important for proper and timely processing of application. Failure to enter this information correctly may result in your application not being retrieved on time for review and subsequently not being considered for funding. If you have a question about which topic area is appropriate for your application, please contact the Program Area Contact.

b. **Field 8. Conflict of Interest List – PDF Attachment. No Page Limit.** Title the attachment as 'Conflict of Interest' in the document header and save file as 'Conflict of Interest'. See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

   A Conflict of Interest List is required for all applications submitted to the AFRI. The Conflict of Interest List should be provided as a separate PDF attachment and not included in the vitae or resume. A Conflict of Interest List must be completed individually for all personnel who have submitted a Biographical Sketch in the R&R Senior/Key Personnel Profile. **Collate all individual Conflict of Interest lists into a single document file.** The lists can only be submitted as a single PDF attachment.

   Here is the required form for the Conflict of Interest List.

Professional Development for Agricultural Literacy (PDAL)
For Professional Development for Agricultural Literacy applications, follow the instructions below:

1. SF 424 R&R Cover Sheet
Information related to this form are explained in detail in Part V, 2 of the NIFA Grants.gov Application Guide. See Part V, 2.18 of the NIFA Grants.gov Application Guide for the required certifications and assurances (e.g., Prohibition Against Entities Requiring Certain Internal Confidentiality Agreements).

2. SF 424 R&R Project/Performance Site Location(s)
Detailed information related to the questions on this form is dealt with in detail in Part V, 3 of the NIFA Grants.gov Application Guide.

3. R&R Other Project Information
Detailed information related to the questions on this form is dealt with in detail in Part V, 4 of the NIFA Grants.gov Application Guide.

a. Field 7. Project Summary/Abstract – PDF Attachment. Title the attachment as 'Project Summary' in the document header and save file as 'ProjectSummary'.

The summary should explain the relevance of the project to the goals of the Program Area or Program area Priority within this RFA to which the application is submitted. See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

The following instructions are in addition to those included in Part V, 4.7 of the NIFA Grants.gov Application Guide.

<u>The Project Summary must indicate the following</u>:

a) Project title;
b) Indicate the primary AFRI Farm Bill Priority area focus of the project by selecting one of the following:
    - Plant health and production and plant products;
    - Animal health and production and animal products;
    - Food safety, nutrition, and health;
    - Bioenergy, natural resources, and environment;
    - Agriculture systems and technology; or
    - Agriculture economics and rural communities.
c) Project duration;
d) Principal Investigator;
e) Submitting organization;
f) Other organizations involved in the project;
g) Location(s) (universities, national labs, field stations, etc.) at which the proposed professional development activities will occur;
h) Facilitator to participant ratio;
i) Number of participants per year; and
j) If any international component included.

In addition to the information requested above, please provide a 250-word abstract. The abstract should briefly describe the project's objectives, activities, education professionals to be recruited, and intended impact. The abstract should also include the relevance of the project to the goals of the PDAL program area.

b. Field 8. Project Narrative – PDF Attachment. Title the attachment as 'Project Narrative' in the document header and save file as 'ProjectNarrative'.

The Project Narrative may **not exceed ten-pages** of written text with 12-point font and line spacing not exceeding six lines of text per vertical inch, including all figures and tables.

To ensure fair and equitable competition, applications exceeding the applicable page limitation will be returned without review.

The Project Narrative must include all of the following:

1) **Response to Previous Review (only applies to Resubmitted Applications (see Part II, B.)**
   The Project Narrative attachment should include two components:
   a) one-page response to the previous review (containing the previous proposal number in the first line) titled "Response to Previous Review" as the first page of the attachment and b) the Project Narrative below). The one-page "Response to Previous Review" does not count against the Project Narrative page limit.
2) **Global Engagement (if applicable)**
   You must describe the indicators you will use to assess proposed international activities (e.g., partnerships, exchanges, travel); see Part I, B. Appropriate indicators include, but are not limited to, those posted at the U.S. government's Feed the Future global food security initiative website. For additional information see Global Engagement Programs at the NIFA website, including a resource section that contains various guidance documents for NIFA applicants.

Project Narrative:

3) **Overview**
   a) Provide a brief description of the objectives of the PDAL program to be developed. What AFRI Priority area(s) is (are) being addressed; who are the targeted participants; what skills gaps and/or academic challenges are being addressed; and what student outcomes will be impacted.
   b) Project Justification: Summarize the body of knowledge justifying the need for the proposed project. Describe any ongoing or recently completed, significant activities related to the proposed project.

4) **Approach**
   a) Approach to K-14 food and agricultural sciences professional development
      1) Describe how the project will provide immersive learning experiences for K-14 educational professionals.
      2) Innovation. Describe the proposal's creative approach to K-14 professional development in the food and agricultural sciences. Using either actual experiences or literature, show why you selected this approach.
   b) Plan of Operation and Methodology:
      1) Nature of Participant Activities. Provide detailed description of the research, education and/or extension activities that will be pursued. How will these experiences lead to enhanced student outcomes?
      2) Describe procedures for accomplishing the objectives of the project. Describe plans for management of the project to ensure its proper and efficient administration. Describe the way in which resources and personnel will be used to conduct the project.
      3) Timetable. Identify all important project milestones (performance targets that indicate when project goals will be met) and dates as they relate to project start-up, execution, evaluation, dissemination, and closeout.

c) Recruitment, Selection, and Continued Support for K-14 Educators
   1) The recruitment plan should be described with as much specificity as possible, including the types and/or names of academic institutions where educational professionals will be recruited and the efforts that will be made to attract educators from low-resource schools.
   2) What criteria will be used to select participants?
   3) Indicate how participants, who terminate the program early, will be replaced.
   4) What additional support will be provided to participants after the termination of the project?

5) The Research, Education and/or Extension Environment

a) Describe the experience of the of the key personnel in providing quality immersive, experiential learning experiences in the food and agricultural sciences and training in the most effective pedagogical strategies for K-14 education.
b) Institutional Support/Partnerships. Describe the institutional climate for the proposed training. How does the proposed project align with and contribute to applicant and partner institutions' goals for enhancing K-14 education in their community/state/region?
c) Describe the environment of the host site(s), including, but not limited to, physical plan(s), accommodations for participants with disabilities, accessibility, location(s) of proposed activities, etc.

6) Project Evaluation and Reporting

a) Clearly define a plan with a timeline to extensively evaluate the project using formative and summative assessment tools that can help inform future implementations of immersive learning based professional development programs. Identify pitfalls and limitations to proposed approach and how these will be addressed.
b) Define the approach for evaluating both participant (educator) *and* K-14 student outcomes.
c) The review process will give preference to projects that will catalyze and result in the implementation self-sustaining models for professional development that better prepare current (i.e. not pre-service) education professionals to provide outstanding teaching, guidance, institutional structures, etc. that are needed to enhance student outcomes in the food and agricultural sciences.

7) **Expected Outputs**
Please use the format provided below. Expected Outputs table does not count against the ten-page limit of the Project Narrative.

Total expected outputs during grant period	Expected Number
1. Number of products to be developed through grant funds during the grant period (i.e., curricula, academic programs, recruitment/retention programs, materials, experiential learning opportunities)	
2. Number of faculty supported by this grant for professional development during the grant period: participation in sabbaticals, workshops, conferences, etc.	
3. Number of students who will indirectly benefit from the products produced from the grant during the grant period (i.e., using the curriculum/instrumentation).	

c. Field 9. Bibliography & References Cited – PDF Attachment. No Page Limit. Title the attachment as 'Bibliography & References Cited' in the document header and save file as 'BibliographyReferencesCited'.

All work cited in the text should be referenced in this section of the application. All references must be complete; include titles and all co-authors; conform to an acceptable journal format; and be listed in alphabetical order using the last name of the first author or listed by number in the order of citation.

d. Field 10. Facilities & Other Resources – PDF Attachment. No Page Limit. Title the attachment as 'Facilities & Other Resources' in the document header and save file as 'FacilitiesOtherResources'.

e. Field 11. Equipment – PDF Attachment. No Page Limit. Title the attachment as 'Equipment' in the document header and save file as 'Equipment'.

Describe available equipment. Items of nonexpendable equipment necessary to conduct and successfully complete the proposed project should be listed in Field C. of the R&R Budget and described in the Budget Justification (see Part IV, C. 6 below).

f. Field 12. Other Attachments
The following instructions are in addition to those noted in Part V 4.12 of the NIFA Grants.gov Application Guide

1) Key Personnel Roles – **PDF Attachment. 2-Page Limit.** Title the attachment as 'Key Personnel' and save file as 'KeyPersonnel'.

   Clearly describe the roles and responsibilities of the PD, collaborator(s), etc. (biographical sketches for key personnel including mentor(s) should not be included here). If it will be necessary to enter into formal consulting or collaborative

arrangements with others, such arrangements should be fully explained and justified. Evidence (letters of support) for this type of collaboration should be provided in the 'Documentation of Collaboration' attachment (see item 5) below).

2) Logic Model – **PDF Attachment. 2-Page Limit. Required for all Integrated Project applications. Encouraged for Research, Education, or Extension Project applications.** Title the attachment as 'Logic Model' and save file as 'LogicModel'.

   Include the elements of a logic model detailing the activities, outputs, and outcomes of the proposed project. The logic model planning process is a tool that should be used to develop your project before writing your application. This information may be provided as a narrative or formatted into a logic model chart. For more information and resources, see the Integrated Programs' Logic Model Planning Process at the NIFA website.

3) Management Plan – **PDF Attachment. 3-Page Limit. Required for Integrated Project applications. Encouraged for Research, Education, or Extension Project applications.** Title the attachment as 'Management Plan' and save file as 'ManagementPlan'.

   The plan is to be clearly articulated and include an organizational chart, administrative timeline, and a description of how the project will be governed, as well as a strategy to enhance coordination, collaboration, communication, and data sharing and reporting among members of the project team and stakeholder groups. The plan must also address how the project will be sustained beyond termination of an award.

   The management plan must also include an advisory group of principal stakeholders, partners, and professionals to assess and evaluate the quality, expected measurable outcomes, and potential impacts for the proposed research, education and/or extension. Please include rationale for their role, and how they will function effectively to support the goals and objectives of the project. The plan must demonstrate how partners and stakeholders contribute to project assessment on an annual basis.
   Failure to include a logic model may result in the application not being considered for review.

4) Data Management Plan (DMP) – **PDF Attachment. 2-Page Limit. Required for Research, Education, Extension, or Integrated Project applications.** Title the attachment as 'Data Management Plan' and save file as 'DataManagementPlan'**.**

   Clearly articulate how the project director (PD) and co-PDs plan to manage and disseminate the data generated by the project. The DMP will be considered during the merit review process (see Part V, B.). **See Part III, 3.1 of the NIFA Grants.gov Application Guide for NIFA attachment specifications.**

For the guidelines on preparation and inclusion of a DMP in your application, see Data Management Plan for NIFA-Funded Research, Education and Extension Projects at NIFA website. Also included on the web page are FAQs and information about accessing examples of DMPs. In addition, general guidelines for Data Management Planning for USDA agencies are available at the National Agricultural Library website.

5) Documentation of Collaboration – **PDF Attachment. No Page Limit.** Title the attachment as 'Documentation of Collaboration' in the document header and save file as 'Collaboration'.

   For PDAL applications, include evidence of collaboration and contributions amongst the host institution and other institutions from which the teacher participants will be recruited. Examples include Letters from the Superintendents, Principals and/or Department Heads of the respective schools.

   Evidence, *e.g.*, letter(s) of support, must be provided that the collaborators involved have agreed to render services. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application.

6) Preprints – **PDF Attachment. Limited to 2 preprints.** Title the attachment as 'Preprints' in the document header and save file as 'Preprints'.

   Preprints related to the Project Narrative are allowed if they are directly germane to the proposed project. Information may not be appended to an application to circumvent page limitations prescribed for the Project Narrative. Extraneous materials will not be used during the peer review process. Only manuscripts in press for a peer- reviewed journal will be accepted and must be accompanied by letters of acceptance from the publishing journals. Preprints attached in support of the application must be single-spaced. Each preprint must be identified with the name of the submitting organization, the name(s) of the PD(s), and the title of the application.

7) Minority-Serving Institution Documentation – **PDF Attachment (Optional: May be needed if applying for FASE Strengthening Standard Grant).** Title the attachment as 'Minorityinfo' in the document header and save file as 'Minorityinfo'.
   (a) Letter identifying percentage of applicable minority students.
   (b) Request for Determination of Status– see Part III, B.

8) Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants – **PDF Attachment.** This is required for corporate applicants. See Part VI, 2 of the NIFA Grants.gov Application Guide for a description of the term, "corporation."

4. R&R Senior/Key Person Profile (Expanded)
Detailed information related to the questions on this form is available in Part V, 5 of the NIFA Grants.gov Application Guide. This section of the guide includes instructions about the people who require senior/key person profile, and details about the biographical sketch and the current and pending support, including a link to the suggested template for the current and pending support.

A Senior/Key Person Profile must be completed for the PD and each co-PD, senior associate, and other professional personnel, including collaborators playing an active role in the project. Collaborators only providing services or materials should not be listed in the R&R Senior/Key Person Profile. Evidence (letters of support) for this type of collaboration should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5).

a) **Project Role Field** – Complete appropriately.

b) **Other Project Role Category Field** – Complete appropriately, if applicable.

c) **Attach Biographical Sketch Field – PDF Attachment. 2-Page Limit** (excluding publications listings) per PD, co-PD, senior associate, and other professional personnel. Title the attachment as 'Biographical Sketch' in the document header and save file as 'BiographicalSketch' followed by the last name of the PD or co-PD such that each biographical sketch file in the application has a distinct file name.

The Biographical sketch of the applicant (PD) and each co-PD, senior associate, and other professional personnel must be included. In addition, include:

1) Author identifier (ORCID, https://orcid.org) of the researcher if available.
2) Digital Object Identifier (DOI) of all publications where possible.

If applicable, the application must include a list of data publications or published data products relevant to the proposed project, following recommended data citation format.
In addition, Biographical sketch must include:

a. A presentation of academic, extension, and/or research credentials including, as applicable: earned degrees, teaching experience, employment history, professional activities, honors and awards, and grants received; and
b. Indicate the number of continuing education courses developed and taught/trained the number of educators by the applicant.
c. Include all relevant publications in refereed journals during the past four (4) years including those in press.

The Conflict of Interest list must not be included in the biographical sketch, but it must be provided as a separate document (see Part IV, C. 7. b for more information).

d) ***Attach Current and Pending Support Field*** **– PDF Attachment. No Page Limit.** Title the attachment as 'Current and Pending Support' in the document header and save file as 'CurrentPendingSupport'.

Here is a suggested template for the Current and Pending Support.

Current and Pending Support information is only required for each senior /key person identified. Note: Even if no other funding is currently reported under the 'Active' section of this attachment, each senior/key person must list this grant application under the 'Pending' section of this attachment.

As an addendum to the Current and Pending Support, provide a brief summary for any completed, current, or pending projects that appear similar to the current application.

5. R&R Personal Data

As noted in Part V, 6 of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award. Part V.6 also notes the importance and use of the information.

6. R&R Budget

Detailed Information related to the questions on this form is available in Part V, 7 of the NIFA Grants.gov Application Guide.

Matching funds.
If a funded project is commodity-specific and not of national scope, the grant recipients required to match the NIFA funds awarded on a dollar-for-dollar basis from non-federal sources with cash and/or in-kind contributions.

If you conclude that matching funds are not required as specified under Part III, C., Cost Sharing or Matching, you must include an explanation for your conclusion in the Budget Justification. We will consider this justification when determining final matching requirements or if required matching can be waived. NIFA retains the right to make final determinations regarding matching requirements.

For grants that require matching funds as specified under Part III, B, the Budget Justification must list matching sources along with the identification of the entity(ies) providing the match as well as the total dollar amount being pledged. NIFA is no longer requiring written verification of commitments of matching support (a pledge agreement). However, you are still subject to documentation, valuing and reporting requirements, etc. as specified in 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (the Uniform Guidance)," 7 CFR 3430, "Competitive and Noncompetitive Non-Formula Federal Assistance Programs – General Award Administrative Provisions," and program-specific regulations, as applicable. In instances where match is required, any resulting award will require the signature of an Authorized Representative. Only when NIFA receives the award signed by the AR will award funds be released and available for drawdown.

The sources and the amount of all matching support from outside the applicant organization must be summarized on a separate page and placed in the application

immediately following the Budget Justification. All pledge agreements must be placed in the application immediately following the summary of matching support.

Establish the value of applicant contributions in accordance with applicable cost principles. Refer to 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," for further guidance and other requirements relating to matching and allowable costs.

a. Budget Periods. Applications must contain a budget for each budget period for the entire duration of the proposed project. Annual and cumulative budgets are required.

If a PDAL application is funded, the Project Director will be required to attend one AFRI NIFA PDAL Project Directors' meeting in Washington, DC during the performance period of the award. Reasonable travel expenses should be included as part of the project budget.

See Part I, C for limitation of budget amounts, use of funds, and budget periods.

- Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project specific activities.
- For Integrated Project Applications, projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component. Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project-specific activities.

Subcontract Arrangements. If it will be necessary to enter into a formal subcontract agreement with another institution, then refer to the following items.

- Letters of commitment (including proposed amount of subaward) and statement of work are required to be included in the application for each subaward. Letters of commitment are to be included in Field 12, Other Attachments of the R&R Other Project Information.
- If the cumulative amount for subawards exceeds 50 percent of the total Federal funds requested or in instances where the proposed subaward is to a Federal agency, then the applicant must provide budgetary detail (i.e., budget and budget justification) for each subaward. If this is the case then refer to Part V, 8 of the NIFA Grants.gov Application Guide for instructions on how to include this information as part of the application.

b. Field H. Indirect Costs –

Section 1462(a) and (c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) 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 sub-awardees, if any; or
2) 30 percent of TFFA.

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

If the results of number one, is the lesser of the two rates, the grant recipient is allowed to charge the negotiated indirect cost rate on the prime award and the sub-award(s), if any. Any sub-awards would be subject to the sub-awardee's negotiated indirect cost rate. The sub-awardee 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 sub-awardee(s) does not exceed 30 percent of the TFFA.

If the result of number two, is the lesser of the two rates, then the maximum indirect cost rate allowed for the overall award, including any sub-award(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 sub-awardee(s), if any, may not exceed 30 percent of the TFFA.

c. *Field K. Budget Justification* – PDF Attachment. No Page Limit. Title the attachment as 'Budget Justification' in the document header and save file as 'BudgetJustification'.

All cumulative budget categories, with the exception of Indirect Costs, for which support is requested must be individually listed (with costs) in the same order as the cumulative budget. If consulting, collaborative, or subcontractual arrangements are included in the application, these arrangements should be fully explained and justified. The rate of pay for any consultant must be included, if known at the time of application. Please include a cost breakdown for the consultant, including the number of days in service, travel, and per diem, as well as the rate of pay. Letters of consent or collaboration signed by the Authorized Representative and other evidence should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5) to show that collaborators have agreed to participate. A proposed statement of work, biographical sketch, and a budget for each arrangement involving the transfer of substantive programmatic work or the provision of financial assistance to a third party must be supplied. Allowable expenditures must be appropriately discussed in the budget justification. In multi-institutional applications, a budget and budget narrative must be included for each institution involved. The lead institution and each participating institution must be identified.

- *For Integrated Project Applications* – Each function should be represented by one or more objectives within the application. Projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component.

7. Supplemental Information Form
Instructions related to this form are explained in detail in Part VI, 1 of the NIFA Grants.gov Application Guide.

a. **Field 2. Program to which you are applying –** Enter the Program Code Name and the Program Code for the Program Area to which you are applying from the information provided in the Program Area Descriptions beginning in Part I, C. An application can only be submitted to one program area. Note that accurate entry of the Program Area Code Name and Program Area Code is extremely important for proper and timely processing of application. Failure to enter this information correctly may result in your application not being retrieved on time for review and subsequently not being considered for funding. If you have a question about which topic area is appropriate for your application, please contact the Program Area Contact.

b. **Field 8. Conflict of Interest List – PDF Attachment. No Page Limit.** Title the attachment as 'Conflict of Interest' in the document header and save file as 'Conflict of Interest'. See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

   A Conflict of Interest List is required for all applications submitted to the AFRI. The Conflict of Interest List should be provided as a separate PDF attachment and not included in the vitae or resume. A Conflict of Interest List must be completed individually for all personnel who have submitted a Biographical Sketch in the R&R Senior/Key Personnel Profile. **Collate all individual Conflict of Interest lists into a single document file.** The lists can only be submitted as a single PDF attachment.

   Here is the required form for the Conflict of Interest List.

Research and Extension Experiences for Undergraduates (REEU)
For REEU applications, follow the instructions below:

1. SF 424 R&R Cover Sheet
Information related to the questions on this form are explained in detail in Part V, 2 of the NIFA Grants.gov Application Guide. See Part V, 2.18 of the NIFA Grants.gov Application Guide for the required certifications and assurances (e.g., Prohibition Against Entities Requiring Certain Internal Confidentiality Agreements).

2. SF 424 R&R Project/Performance Site Location(s)
Information related to this form are explained in detail in Part V, 3 of the NIFA Grants.gov Application Guide.

3. R&R Other Project Information
Information related to this form are explained in detail in Part V, 4 of the NIFA Grants.gov Application Guide. There are three sections below for REEU Project Applications, REEU Education Coordinated Network (REEU-ECN) Project Applications, and REEU and REEU-ECN Applications (applies to both types of applications)

REEU Project Applications

a. Field 7. Project Summary/Abstract – PDF Attachment. Title the attachment as 'Project Summary' in the document header and save file as 'ProjectSummary'. See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

The Project Summary **must** indicate the following:

i) Project title
ii) Indicate the primary AFRI Farm Bill priority area focus of the project by selecting one of the following six Farm Bill priority areas.
   - Plant health and production and plant products;
   - Animal health and production and animal products;
   - Food safety, nutrition, and health;
   - Bioenergy, natural resources, and environment;
   - Agriculture systems and technology; or
   - Agriculture economics and rural communities.
iii) Project duration;
iv) Principal Investigator;
v) Submitting organization;
vi) Other organizations involved in the project's operation;
vii) Location(s) (universities, national labs, field stations, etc.) at which the proposed undergraduate research and/or extension will occur;
viii) Main field(s) and sub-field(s) of the research and/or extension;
ix) Number of mentors;
x) Mentor to participant ratio;
xi) Number of undergraduate participants per year;
xii) Percentage of undergraduate students from the host institution;
xiii) Number of weeks per year that the students will participate;
xiv) If any international component included, where;
xv) Relevance of the project to the goals of REEU program area; and
xvi) Relevance of the project to the goals of AFRI Education and Workforce Development (EWD).

In addition to the information requested above please provide a 250-word abstract. The abstract should briefly describe the project's objectives, activities, and students to be recruited, and intended impact.

b. Field 8. Project Narrative – PDF Attachment. Title the attachment as 'Project Narrative' in the document header and save file as 'ProjectNarrative'.

The Project Narrative section may not exceed a total of **ten**-pages of written text with 12-point font and line spacing not exceeding six lines of text per vertical inch, including all figures and tables.

To ensure fair and equitable competition, applications exceeding the applicable page limitation will be returned without review.

The Project Narrative (see page and font restrictions noted above)

1) **Response to Previous Review (only applies to Resubmitted Applications (see Part II. B.)**
   The Project Narrative attachment should include two components:
   a) one-page response to the previous review (containing the previous proposal number in the first line) titled "Response to Previous Review" as the first page of the attachment and b) the Project Narrative. The one-page "Response to Previous Review" does not count against the Project Narrative page limit.

2) **Progress Report (Only applies to proposals building on previously awarded REEU projects)**
   This requirement only applies to project directors who are submitting a proposal in the current FY competition **AND** who have held an REEU award in the last five years. These applications must include a progress report within the applicable page limitation of the Project Narrative and should highlight program accomplishments, evaluation outcomes, and resulting adjustments and developments in the program's scope and logistics (if any). This section should be labeled "Progress Report"

3) **Overview**
   - Provide a brief description of the objectives of the proposed host site(s)/location(s), targeted student participants, intellectual focus, organizational structure, timetable, and participating organizations' commitment to the activity.

4) **The Research, Education and/or Extension Environment**
   - For the project director, the faculty who may serve as mentors, and the institution(s) or organization(s) where the activities will occur, describe the experience, and the record of the involvement with undergraduate students. Include information on the record of faculty/mentors in publishing work involving undergraduate authors and in providing professional development opportunities for undergraduate students.
   - Describe the environment of the host site(s), including, but are not limited to, physical plan(s), accommodations for students with disabilities, accessibility, location(s) of proposed activities, etc.

5) **Approach**
   - Student Recruitment, Selection, and Retention
     a. The recruitment plan should be described with as much specificity as possible, including the types and/or names of academic institutions where students will be recruited and the efforts that will be made to attract members of underrepresented groups.
     b. The number of students per project should be appropriate to the institutional or organizational setting and to the manner in which research is conducted in the discipline.

c. Indicate how undergraduate fellows, who terminate the program early, will be replaced.

- Nature of Student Activities
  a. Proposals should address the approach to undergraduate research, education and/or extension training being taken and should provide detailed descriptions of the research, education and/or extension projects that the undergraduate students will pursue. This discussion should indicate the significance of the research, education and/or extension area(s) and, when appropriate, the underlying theoretical framework, hypotheses, and questions.
  b. Proposals must present plans that will ensure the development of student faculty interaction and student-student communication.
- Mentoring Plan
  a. This subsection should discuss the diversity of the mentor pool; any training, mentoring, or monitoring that mentors have received or will receive to help them mentor students effectively during the research experience; and any plans by which mentoring relationships will be sustained after students leave the site where the experiential learning activities take place.
  b. Describe the mentoring activities for the students in detail. These should be clearly articulated, and inclusive of student-centered deliverables associated with the mentoring activities.
- Institutional Support
  a. Fully describe the institutional climate for the proposed training. How does the proposed project align with the institutions goals for experiential learning? How does the proposed project contribute to achieving these goals?
  b. The review process will give preference to projects that will catalyze and result in the implementation of a <u>self-sustaining model</u> for increased/enhanced experiential learning for diverse undergraduate student populations at the host and partner institutions.

6) Project Evaluation and Reporting

- Clearly define a plan with a timeline to extensively evaluate the project using formative and summative assessment tools that can help inform future implementations of experiential learning programs. Identify pitfalls and limitations to proposed approaches and how these will be addressed;
- Define the approach for longitudinal tracking of the students after completion of the Research and Extension Experiences for Undergraduates program; include strategies for tracking Fellows to their exit point from the institution; and if employed where and at what level, if graduate training then what institutions and in what level/areas of study etc.;
- Specifically describe the **<u>student-centered learning outcomes</u>** (e.g. skills or knowledge obtained, presentations and publications, graduation rates, students matriculating to graduate schools, etc.) and associated measures to evaluate outcomes;
- Describe how these outcome measures were chosen; and

- Provide strategies to assess, at the project-level, management of the project for successful outcomes.

6) Expected Outputs

Please use the table format below. Expected Outputs table does not count against the ten-page limit of the Project Narrative.

Total expected outputs during grant period	Expected Number
(1) Number of male students to be directly supported by this grant (i.e., scholarships, fellowships, assistantships, internships included as a cost in your project budget) for undergraduate education	
(2) Number of underrepresented[1] male students to be supported during the grant period (Provide the best estimate based on past experience)	
(3) Number of female students to be directly supported by this grant (i.e., scholarships, fellowships, assistantships, internships included as a cost in your project budget) for undergraduate education	
(4) Number of underrepresented[1] female students to be supported during the grant period (Provide the best estimate based on past experience)	
(5) Number of students supported by this grant (i.e., scholarships, fellowships, assistantships) who are pursuing:	
5-A. Two year or other certificates	
5-B. 4 year Undergraduate degrees	
(6) Number of students who will be supported by this grant on:	
6-A. Domestic experiences with a government or non-governmental organization that is not affiliated with your university	
6-B. International experiences including study abroad, educational travel longer than a month, etc.	

[1]Underrepresented = those whose representation among food and agricultural professionals is disproportionately less than their proportion in the general population as indicated in standard statistical references, or as documented on a case-by-case basis by national survey data (e.g., the U.S. Department of Education's Digest of Education Statistics, U.S. Department of Agriculture's Food and Agricultural Education Information Systems, etc.).

Note: Information on Fields 9-12 are also applicable to applications for this program (starting on page 29).

REEU Education Coordinated Network (REEU-ECN) Project Applications

a. Field 7. Project Summary/Abstract – PDF Attachment. Title the attachment as 'Project Summary' in the document header and save file as 'ProjectSummary'. See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

The Project Summary **must** indicate the following:

i) Project title
ii) Project duration;
iii) Principal Investigator(s);
iv) Submitting organization;
v) Other organizations involved in the project's operation;

In addition to the information requested above, please provide a 250-word abstract. The abstract should briefly describe the project's objectives, activities, and intended impact.

b. Field 8. Project Narrative – PDF Attachment. Title the attachment as 'Project Narrative' in the document header and save file as 'ProjectNarrative'.

The Project Narrative section may not exceed a total of **ten**-pages of written text with 12-point font and line spacing not exceeding six lines of text per vertical inch, including all figures and tables.

To ensure fair and equitable competition, applications exceeding the applicable page limitation will be returned without review.

The Project Narrative (see page and font restrictions noted above)

1) **Overview**
   - Provide a clear statement of the proposal's objectives and goals;
   - Briefly describe the activities that will take place to support these objectives and goals and the Project Director's experience in developing, managing and maintaining similar projects.

2) **Objectives and Outcomes:**
   - Present the objectives, goals and expected outcomes of the project in relation to the needs identified in the Program Area Priorities.

3) **Approach**
   - Provide a thorough description of the activities proposed to achieve these objectives and a justification for these actions. This section must include a description of each activity proposed for each objective; a timeline of the proposed activities; expected measurable outputs for each year of the five year project;
   - This section must include descriptions of the following mandatory activities of the Network: the digital clearinghouse, public facing website for REEU

programs, listserve, and PD meeting plans;
- Describe any other novel proposed elements that increase the Network's value for Project Directors and potential student participants;
- Include pitfalls that may be encountered and limitations to proposed activities;
- Present an evaluation plan, which includes performance target and the means by which the outcomes will be analyzed, assessed or interpreted each year and at the end of the project.

4) Personnel and Resources

- Describe in detail the key project personnel's experience in maintaining an education focused network, undergraduate or REEU specific experiential learning, and communities of practice;
- Provide information on the institutional resources and facilities to be used to house and manage a digital clearinghouse, listserve, and website;
- Provide other personnel needs, assignments and the division of labor anticipated to carry out the project;
- Discuss collaborating organizations (if any) and their role in the project;
- Include plans for transferability of the Network post-award.

Note: Information on Fields 9-12 are also applicable to applications for this program (see below).

<u>REEU and REE-ECN Applications</u>

The information below applies to both project application types.

a. Field 9. Bibliography & References Cited – PDF Attachment. No Page Limit. Title the attachment as 'Bibliography & References Cited' in the document header and save file as 'BibliographyReferencesCited'.

All work cited in the text should be referenced in this section of the application. All references must be complete; include titles and all co-authors; conform to an acceptable journal format; and be listed in alphabetical order using the last name of the first author or listed by number in the order of citation.

b. Field 10. Facilities & Other Resources – PDF Attachment. No Page Limit. Title the attachment as 'Facilities & Other Resources' in the document header and save file as 'FacilitiesOtherResources'.

c. Field 11. Equipment – PDF Attachment. No Page Limit. Title the attachment as 'Equipment' in the document header and save file as 'Equipment'.

Describe available equipment. Items of nonexpendable equipment necessary to conduct and successfully complete the proposed project should be listed in Field C. of the R&R Budget and described in the Budget Justification (see Part IV, C. 6 below).

d. Field 12. Other Attachments

The following instructions are in addition to those noted in Part V 4.12 of the NIFA Grants.gov Application Guide

1) Key Personnel Roles – **PDF Attachment. 2-Page Limit.** Title the attachment as 'Key Personnel' and save file as 'KeyPersonnel'.

   ☼ *For Integrated Grant Applications* – state for key personnel an estimate of the percent of time devoted to research, education, and/or extension activities.

   Clearly describe the roles and responsibilities of the PD, collaborator(s), mentor(s) *etc*. (biographical sketches for key personnel including mentor(s) should not be included here). If it will be necessary to enter into formal consulting or collaborative arrangements with others, such arrangements should be fully explained and justified. Evidence (letters of support) for this type of collaboration should be provided in the 'Documentation of Collaboration' attachment (see item 2) below).

2) Logic Model – **PDF Attachment. 2-Page Limit. Required for <u>all</u> Integrated Project applications. Encouraged for Research, Education, or Extension Project applications.** Title the attachment as 'Logic Model' and save file as 'LogicModel'.

   Include the elements of a logic model detailing the activities, outputs, and outcomes of the proposed project. The logic model planning process is a tool that should be used to develop your project before writing your application. This information may be provided as a narrative or formatted into a logic model chart. For more information and resources, see Integrated Programs' Logic Model Planning Process at the NIFA website.

3) Management Plan – **PDF Attachment. 3-Page Limit. Required for Integrated Project applications. Encouraged for Research, Education, or Extension Project applications.** Title the attachment as 'Management Plan' and save file as 'ManagementPlan'.

   The plan is to be clearly articulated and include an organizational chart, administrative timeline, and a description of how the project will be governed, as well as a strategy to enhance coordination, collaboration, communication, and data sharing and reporting among members of the project team and stakeholder groups. The plan must also address how the project will be sustained beyond termination of an award.

   The management plan must also include an advisory group of principal stakeholders, partners, and professionals to assess and evaluate the quality, expected measurable outcomes, and potential impacts for the proposed research, education and/or extension. Please include rationale for their role, and how they will function effectively to support the goals and objectives of the project. The plan

must demonstrate how partners and stakeholders contribute to project assessment on an annual basis.

4) Data Management Plan (DMP) – **PDF Attachment. 2-Page Limit. Required for Research, Education, Extension, or Integrated Project applications.** Title the attachment as 'Data Management Plan' and save file as 'DataManagementPlan'**.**

   Clearly articulate how the project director (PD) and co-PDs plan to manage and disseminate the data generated by the project. The DMP will be considered during the merit review process (see Part V, B.). **See Part III, 3.1 of the NIFA Grants.gov Application Guide for NIFA attachment specifications.**

   For the guidelines on preparation and inclusion of a DMP in your application, see Data Management Plan for NIFA-Funded Research, Education and Extension Projects at NIFA website. Also included on the web page are FAQs and information about accessing examples of DMPs. In addition, general guidelines for Data Management Planning for USDA agencies are available at the National Agricultural Library website.

5) Mentor Letter(s), and Documentation of Collaboration – **PDF Attachment. No Page Limit.** Title the attachment as 'Documentation of Collaboration' in the document header and save file as 'Collaboration'. **(This is for REEU applications ONLY.)**

   Primary Mentor Letter of Commitment – One Primary Mentor letter is required. If there is more than one Primary Mentor, a Primary mentor letter should be provided for each primary mentor. The mentor letter(s) should indicate:
   a) A description of committed responsibilities and projected time with the undergraduate students throughout the proposed project.

   Collaborating Mentor Letters – As applicable, other mentor letter(s) should clearly describe committed responsibilities and projected time with the undergraduate students throughout the proposed project.

   Documentation of Collaboration – Evidence of collaboration and contributions amongst the host institution and other institutions from which the undergraduate students will be recruited. Examples include Letters from the Deans and/or Department Heads of the respective schools.

   Evidence, *e.g.*, letter(s) of support, should be provided that the collaborators involved have agreed to render services. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application.

6) Minority-Serving Institution Documentation – **PDF Attachment.** Title the attachment as 'Minorityinfo' in the document header and save file as 'Minorityinfo'.
   (a) Letter identifying percentage of applicable minority students.
   (b) Request for Determination of Status – see Part III, B.

7) Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants – **PDF Attachment.** This is required for corporate applicants. See Part VI, 2 of the NIFA Grants.gov Application Guide for a description of the term, "corporation."

4. R&R Senior/Key Person Profile

Detailed information related to this form are explained in detail in Part V, 5 of the NIFA Grants.gov Application Guide. This section of the guide includes instructions about the people who require senior/key person profile, and details about the biographical sketch and the current and pending support, including a link to the suggested template for the current and pending support.

A Senior/Key Person Profile must be completed for the PD and each co-PD, senior associate, and other professional personnel, including collaborators playing an active role in the project. Collaborators only providing services or materials should not be listed in the R&R Senior/Key Person Profile. Evidence (letters of support) for this type of collaboration should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5).

a) Project Role Field – Complete appropriately.

- For REEU Grant Applications – **A member(s) of the host institution(s) must be listed as the PD(s) on the application.**

b) Other Project Role Category Field – Complete appropriately, if applicable.

Enter "Mentor" for corresponding scientific mentor(s).

***c) Attach Biographical Sketch Field* – PDF Attachment. 2-Page Limit** (excluding publications listings) per PD, co-PD, senior associate, and other professional personnel. Title the attachment as 'Biographical Sketch' in the document header and save file as 'BiographicalSketch' followed by the last name of the PD or co-PD such that each biographical sketch file in the application has a distinct file name. **See** Part V, 5.2 of the NIFA Grants.gov application guide

The Biographical sketch of the applicant (PD) and each co-PD, senior associate, and other professional personnel must be included. In addition, include:

1) Author identifier (ORCID, https://orcid.org) of the researcher if available.
2) Digital Object Identifier (DOI) of all publications where possible.

If applicable, the application must include a list of data publications or published data products relevant to the proposed project, following recommended data citation format.

In addition, Biographical sketch must include the following information:

- Activities that demonstrate scholastic achievement and excellence. These may include but are not limited to a presentation of academic, extension, and/or research credentials including, as applicable: earned degrees,

teaching experience, employment history, professional activities, honors and awards, and grants received.
- indicate TOTAL number of undergraduate students directly mentored or trained through experiential learning activities during the past four (4) years; and
- include all relevant publications in refereed journals during the past four (4) years, including those in press.

The Biographical sketch of the Primary mentor (more than one Primary Mentor if integrated project only) must include the number of mentees mentored at least for the last 5 years.

The Conflict of Interest list must not be included in the biographical sketch, but it must be provided as a separate document (see Part IV, C. 7. b for more information).

d) Attach Current and Pending Support Field **– PDF Attachment. No Page Limit.** Title the attachment as 'Current and Pending Support' in the document header and save file as 'CurrentPendingSupport'.

Current and Pending Support for each senior/key person identified and the scientific mentor(s) (as documentation of on-going work in the mentor's laboratory) must be completed.

Note: Even if no other funding is currently reported under the 'Active' section of this attachment, each senior/key person must list this grant application under the 'Pending' section of this attachment.

As an addendum to the Current and Pending Support, provide a brief summary for any completed, current, or pending projects that appear similar to the current application.

5. R&R Personal Data
As noted in Part V, 6 of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award. Part V.6 also notes the importance and use of the information.

6. R&R Budget
Detailed Information related to the questions on this form is available in Part V, 7 of the NIFA Grants.gov Application Guide.

Matching funds.
If you conclude that matching funds are not required as specified under Part III, C., Cost Sharing or Matching, you must include an explanation for your conclusion in the Budget Justification. We will consider this justification when determining final matching requirements or if required matching can be waived. NIFA retains the right to make final determinations regarding matching requirements.

For grants that require matching funds as specified under Part III, B, the Budget Justification must list matching sources along with the identification of the entity(ies) providing the match as well as the total dollar amount being pledged. NIFA is no longer requiring written verification of commitments of matching support (a pledge agreement). However, you are still subject to documentation, valuing and reporting requirements, etc. as specified in 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (the Uniform Guidance)," 7 CFR 3430, "Competitive and Noncompetitive Non-Formula Federal Assistance Programs – General Award Administrative Provisions," and program-specific regulations, as applicable. In instances where match is required, any resulting award will require the signature of an Authorized Representative. Only when NIFA receives the award signed by the AR will award funds be released and available for drawdown.

For applied Research or Integrated Projects with an applied research component, if a funded project is commodity-specific and not of national scope, the grant recipient is required to match the NIFA funds awarded on a dollar-for-dollar basis from non-federal sources with cash and/or in-kind contributions.

The sources and the amount of all matching support from outside the applicant organization must be summarized on a separate page and placed in the application immediately following the Budget Justification. All pledge agreements must be placed in the application immediately following the summary of matching support.

Establish the value of applicant contributions in accordance with applicable cost principles. Refer to 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," for further guidance and other requirements relating to matching and allowable costs.

a. **Budget Periods.** Applications must contain a budget for each budget period; a cumulative budget will automatically be generated.

If a REEU grant application is funded, the Project Director will be required to attend one AFRI NIFA EWD Project Directors' meeting in Washington, DC during the performance period of the award. Reasonable travel expenses should be included as part of the project budget. Reasonable travel expenses should be included as part of the project budget.

See Part I, C. for limitation of budget amounts, use of funds, and budget periods.

- Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project specific activities.
- For Integrated Project Applications, projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component. Projects that include partnering with eXtension must include financial support for the Community of Practice core

functions as well as project-specific activities.

Subcontract Arrangements. If it will be necessary to enter into a formal subcontract agreement with another institution, then refer to the following items.

- Letters of commitment (including proposed amount of subaward) and statement of work are required to be included in the application for each subaward. Letters of commitment are to be included in Field 12, Other Attachments of the R&R Other Project Information.
- If the cumulative amount for subawards exceeds 50 percent of the total Federal funds requested or in instances where the proposed subaward is to a Federal agency, then the applicant must provide budgetary detail (i.e., budget and budget justification) for each subaward. If this is the case then refer to Part V, 8 of the NIFA Grants.gov Application Guide for instructions on how to include this information as part of the application.

b. ***Field H. Indirect Costs –***

Section 1462(a) and (c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) 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 sub-awardees, if any; or
2) 30 percent of TFFA.

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

If the results of number one, is the lesser of the two rates, the grant recipient is allowed to charge the negotiated indirect cost rate on the prime award and the sub-award(s), if any. Any sub-awards would be subject to the sub-awardee's negotiated indirect cost rate. The sub-awardee 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 sub-awardee(s) does not exceed 30 percent of the TFFA.

If the result of number two, is the lesser of the two rates, then the maximum indirect cost rate allowed for the overall award, including any sub-award(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 sub-awardee(s), if any, may not exceed 30 percent of the TFFA.

c. ***Field K. Budget Justification*** **– PDF Attachment. No Page Limit. Title the attachment as 'Budget Justification'** in the document header and save file as 'BudgetJustification'.

All cumulative budget categories, with the exception of Indirect Costs, for which support is requested must be individually listed (with costs) in the same order as the

cumulative budge. If consulting, collaborative, or subcontractual arrangements are included in the application, these arrangements should be fully explained and justified. The rate of pay for any consultant must be included, if known at the time of application. Please include a cost breakdown for the consultant, including the number of days in service, travel, and per diem, as well as the rate of pay. Letters of consent or collaboration and other evidence should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5) to show that collaborators have agreed to participate. A proposed statement of work, biographical sketch, and a budget for each arrangement involving the transfer of substantive programmatic work or the provision of financial assistance to a third party must be supplied. **Allowable expenditures must be appropriately discussed in the budget justification.** In multi-institutional applications, a budget and budget narrative must be included for each institution involved. The lead institution and each participating institution must be identified.

- *For Integrated Project Applications* – Each function should be represented by one or more objectives within the application. Projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component.

7. Supplemental Information Form

Instructions related to this form are explained in detail in Part VI, 1 of the NIFA Grants.gov Application Guide.

a. **Field 2. Program to which you are applying** – Enter the Program Code Name and the Program Code for the Program Area to which you are applying from the information provided in the Program Area Descriptions beginning in Part I, C. An application can only be submitted to one program area. Note that accurate entry of the Program Area Code Name and Program Area Code is extremely important for proper and timely processing of application. Failure to enter this information correctly may result in your application not being retrieved on time for review and subsequently not being considered for funding. If you have a question about which topic area is appropriate for your application, please contact the Program Area Contact.

b. **Field 8. Conflict of Interest List – PDF Attachment. No Page Limit.** Title the attachment as 'Conflict of Interest' in the document header and save file as 'Conflict of Interest'. See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

   A Conflict of Interest List is required for all applications submitted to the AFRI. The Conflict of Interest List should be provided as a separate PDF attachment and not included in the vitae or resume. A Conflict of Interest List must be completed individually for all personnel who have submitted a Biographical Sketch in the R&R Senior/Key Personnel Profile. **Collate all individual Conflict of Interest lists into a single document file.** The lists can only be submitted as a single PDF attachment.

   Here is the required form for the Conflict of Interest List.

<u>Pre- and Post-doctoral Fellowships</u>
For Pre- and Post-doctoral Fellowships applications, follow the instructions below:

1. SF 424 R&R Cover Sheet
Information related to the questions on this form is dealt with in detail in Part V, 2 of the NIFA Grants.gov Application Guide. See Part V, 2.18 of the NIFA Grants.gov Application Guide for the required certifications and assurances (e.g., Prohibition Against Entities Requiring Certain Internal Confidentiality Agreements).

2. SF 424 R&R Project/Performance Site Location(s)
Detailed information related to the questions on this form is dealt with in detail in Part V, 3 of the NIFA Grants.gov Application Guide.

3. R&R Other Project Information Form
Detailed information related to the questions on this form is dealt with in detail in Part V, 4 of the NIFA Grants.gov Application Guide.

a. Field 7. Project Summary/Abstract – PDF Attachment. Title the attachment as 'Project Summary' in the document header and save file as 'ProjectSummary'. See Part V, 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

The Project Summary **must** indicate the following:

i) Names and institutions of the PD and Primary Mentor (more than one if Integrated project only);
ii) Predoctoral or Postdoctoral application
iii) Project type (research, education, extension, or integrated research, education and/or extension) and concise project description in the applicant's proposed predoctoral program or postdoctoral training;
iv) Indicate the primary AFRI Farm Bill priority area focus of the project by selecting one of the following:
    - Plant health and production and plant products;
    - Animal health and production and animal products;
    - Food safety, nutrition, and health;
    - Bioenergy, natural resources, and environment;
    - Agriculture systems and technology; or
    - Agriculture economics and rural communities.
v) Relevance of the project to the goals of pre- or post-doctoral program area;
vi) Relevance of the project to the goals of AFRI Education and Workforce Development (EWD).

b. Field 8. Project Narrative – PDF Attachment. Title the attachment as 'Project Narrative' in the document header and save file as 'ProjectNarrative'.

For **Predoctoral Grant** applications, the Project Narrative section may not exceed a total of **six**-pages, 12-point font and line spacing not exceeding six lines per vertical inch, including all figures and tables.

For **Postdoctoral Grant** applications, the Project Narrative section may not exceed a total of **ten**-pages, 12-point font and line spacing not exceeding six lines per vertical inch including all figures and tables.

To ensure fair and equitable competition, applications exceeding the applicable page limitation will be returned without review.

NOTE: ALL components of the project narrative (e.g., Response to Previous Review, if applicable; the Training/Career Development Plan; the Mentoring Plan; the Project Plan; and the Evaluation Plan) will be considered in accordance with the evaluation criteria.

For Predoctoral Fellowships and Postdoctoral Fellowships, Project Narrative Attachment must include all of the following:

1) **Response to Previous Review (only applies to Resubmitted Applications (see Part II, B.)**
   The Project Narrative attachment should include two components:
   a) one-page response to the previous review (containing the previous proposal number in the first line) titled "Response to Previous Review" as the first page of the attachment and b) the Project Narrative (see item 2) below). The one-page "Response to Previous Review" does not count against the Project Narrative page limit.

2) **Project Narrative (see page and font restrictions noted above)**
   a) **Training/Career Development Plan**
      The Training/Career Development Plan is a description of all activities that the applicant plans to perform and participate in which will enhance the pre- or postdoctoral training during the fellowship award period.

      For **Predoctoral Fellowship** applicants, this plan must include
      - personal statement addressing future career directions or preparation for entering the workforce,
      - overall career goals and objectives, as well as how, if awarded, the fellowship will allow them to accomplish their professional goals and objectives,
      - any other training objectives,
      - any extension and educational activities (e.g., teaching in formal or informal settings) to enhance their career development that will be undertaken during their doctoral training.

      For **Postdoctoral Fellowship** applicants, this plan must include plans for transition to career independence by development of professional skills. These professional skills include teaching competencies; what those career and training

goals are; and results of the postdoctoral fellow's previous and current research and scholarships that include publications, presentations, etc.

b) Mentoring Plan

The applicants are expected to identify a Primary mentor who will be willing to help them in their application and projects as well as professional development (more than one Primary Mentor is acceptable for Integrated Projects Only). If there are other collaborating mentors, their role and responsibilities to the project and development of the applicant's skills should be clearly described. For predoctoral applications, if the primary mentor is not the student's graduate advisor or laboratory sponsor, the relationship between advisor's work and the primary mentor's research should be clearly defined, and the contribution of each individual in the student's project as well as degree completion should be included. The commitment of the mentor(s) is included in the evaluation criteria as it pertains to project personnel. In describing the role of the mentor, the applicant should:

1) Briefly indicate how the mentoring and educational training will add to the skill sets of the NIFA Fellow.
2) Briefly explain the commitment of the primary mentor.
3) Briefly describe the role of collaborating mentors (if applicable).
4) With respect to the Primary Mentor, provide a list of former mentees and their current positions.
   NOTE: The Primary Mentor shall submit a Letter of Commitment (as an attachment to Field 12, Other Attachments, of the Other Project Information form) explicitly indicating their respective responsibilities throughout the proposed project in relation to the Project Director.
5) Briefly list and explain the role of other non-primary mentors.

c) Project Plan

Predoctoral Applicants: It is expected that predoctoral students will be working with a primary mentor or advisor who has funded research and that the fellow may work on another aspect of this research. Moreover, the mentor/advisor will already have the facilities, equipment, technologies and methodologies for the projects developed with the fellow. Experimental methods, especially if these are routinely or generally used, do not need detailed description. However, sufficient details on the experimental approach or strategy as well as pitfalls must be provided to allow assessment of feasibility of study. The Project scope should be within the 3-year timeframe of the fellowship.

Postdoctoral Applicants: The research should be totally independent of the mentor's. Proven techniques and technologies as part of the experimental approach, especially if these are routinely employed, don't have to be provided in detail. Experimental approaches or strategies including possible pitfalls and alternatives must be provided in order to assess the overall feasibility of the proposed study. Avoid open-ended screens or undefined outcomes. The scope of the project should be within the 2-year timeframe.

In addition, the project narrative must have:

i) Introduction

The introduction should include a well-defined problem, a clear statement of the long-term goal(s), and supporting objectives of the proposed project. Summarize the body of knowledge or other past activities that substantiate the need for the proposed project. Describe ongoing or recently completed activities related to the proposed project including the work of key project personnel. Include preliminary data/information pertinent to the proposed work. All works cited should be referenced (see Bibliography & References Cited).

ii) Rationale and Significance

- Concisely present the rationale behind the proposed project and how it will advance the current knowledge in the field;
- Clearly describe the specific relationship of the project's objectives to one of the Program Area Priorities. The Program Area Priority(ies) must be specifically identified ; and
- Describe how the proposed curricular activities (predoctoral) will support educational goals and project activities.

iii) Approach

Provide a concise description of the proposed project and the problem(s) to be addressed. Clearly describe the approaches to be used. Specifically, this section must include:

- A description of the project details proposed and the sequence in which the activities are to be performed;
- Methods to be used in carrying out the proposed project and feasibility of the methods (detail only if a new and unproven method is to be used; if employing commonly used methods provide information on the expertise available);
- Expected outcomes and outcome measures;
- Means by which results will be analyzed, assessed, or interpreted;
- How results or products will be used;
- Pitfalls that may be encountered, and possible alternatives;
- Limitations to proposed procedures;
- A full explanation of any materials, procedures, situations, or activities related to the project that may be hazardous to personnel, along with an outline or precautions to be exercised to avoid or mitigate the effects of such hazards;
- A timeline for attainment of objectives and for production of deliverables that include annual milestones with specific, measurable outcomes; and
- Establishment of a profile on an established professional social networking site to document career progress during and beyond the term of the Fellowship.

d) Evaluation Plan

A plan for evaluating progress towards **objectives related to the training/career development plan, mentoring plan, and project plan.** The plan must include milestones, which signify the completion of a major deliverable, events, or accomplishment and serve to verify that the project is on schedule and on track for successful conclusion. The plan should also include descriptions of indicators that will be measured to evaluate whether the education activities are successful in achieving project goals and contribute to the achievement of the stated program goals and outcomes; and a dissemination plan describing the methods that will be used to communicate findings and project accomplishments.

- For **Education Project** Applications – In addition to the Project Narrative requirements above, the proposed Education Project should clearly articulate:
  - The potential for advancing the quality of education by addressing a specific problem or opportunity; and
  - The target audience and the level of education addressed.

- For **Extension Project** Applications – In addition to the Project Narrative requirements above, the proposed Extension Project should give emphasis to scholarly principles of engagement and outreach that clearly articulate:
  - The importance of informal education to address a specific local problem or issue;
  - The theoretical basis of informal outreach methods used;
  - Development and/or implementation of a curriculum-based series of connected learning activities (including educational materials) that engage the public in practical problem solving;
  - A plan for evaluating progress toward achieving project objectives. The plan must include milestones, which signify the completion of a major deliverable, event, or accomplishment and serve to verify that the project is on schedule and on track for successful conclusion;
  - The plan should also include descriptions of indicators that you will measure to evaluate whether the extension activities are successful in achieving project goals and in contributing to achievement of the stated program goals and outcomes; and
  - A dissemination plan describing the methods that will be used to communicate findings and project accomplishments.

- For **Integrated Project** Applications – In addition to the Project Narrative requirements above, the proposed Integrated Project should clearly articulate:
  - Stakeholder involvement in project development, implementation, and evaluation, where appropriate;
  - Objectives for each function included in the project (note that extension and education activities are expected to differ and to be described in separate project objectives; see enumerated descriptions in Part II, C (page 7 in the AFRI EWD RFA); and

- A dissemination plan describing the methods that will be used to communicate findings and project accomplishments.
- A plan for evaluating progress toward achieving project objectives must be included. The plan must include milestones, which signify the completion of a major deliverable, event, or accomplishment and serve to verify that the project is on schedule and on track for successful conclusion. The plan should also include descriptions of indicators that you will measure to evaluate whether the research, education, and/or extension activities are successful in achieving project goals and in contributing to achievement of the stated program goals and outcomes.

c. Field 9. Bibliography & References Cited – PDF Attachment. No Page Limit. Title the attachment as 'Bibliography & References Cited' in the document header and save file as 'BibliographyReferencesCited'.

All work cited in the text should be referenced in this section of the application. All references must be complete; include titles and all co-authors; conform to an acceptable journal format; and be listed in alphabetical order using the last name of the first author or listed by number in the order of citation.

d. Field 10. Facilities & Other Resources – PDF Attachment. No Page Limit. Title the attachment as 'Facilities & Other Resources' in the document header and save file as 'FacilitiesOtherResources'.

e. Field 11. Equipment – PDF Attachment. No Page Limit. Title the attachment as 'Equipment' in the document header and save file as 'Equipment'.

Describe available equipment. Items of nonexpendable equipment necessary to conduct and successfully complete the proposed project should be listed in Field C. of the R&R Budget and described in the Budget Justification (see Part IV, C. 6 below).

f. Field 12. Other Attachments
The following instructions are in addition to those noted in Part V 4.12 of the NIFA Grants.gov Application Guide.

1) Key Personnel Roles – **PDF Attachment. 2-Page Limit.** Title the attachment as 'Key Personnel' and save file as 'KeyPersonnel'.

   Clearly describe the roles and responsibilities of the PD, collaborator(s), mentor(s) *etc*. (biographical sketches for key personnel including mentor(s) should not be included here). If it will be necessary to enter into formal consulting or collaborative arrangements with others, such arrangements should be fully explained and justified. Evidence (letters of support) for this type of collaboration should be provided in the 'Documentation of Collaboration' attachment (see item 5) below).

Mentor Letter, Reference Letters, and Documentation of Collaboration – **PDF Attachment. No Page Limit.** Title the attachment as 'Documentation of Collaboration' in the document header and save file as 'Collaboration'.

Mentor Letter and the Reference Letters must be included in the Documentation of Collaboration.

Primary Mentor Letter of Commitment – One Primary Mentor letter is required. If there is more than one Primary Mentor (Integrated Projects Only), a Primary mentor letter should be provided for each mentor. The mentor letter(s) should indicate:

a) the quality of the applicant in regards to their ability to develop into a leader in agriculture;
b) the applicant's oral and written communication skills and critical and analytical skills;
c) the applicant's level of intellectual independence;
d) the role of the student and mentor in the development of the application;
e) **their respective committed responsibilities throughout the proposed project in relation to the Project Director;**
f) a statement that the research by the applicant is independent and not an extension of the mentor's research (for postdoctoral applicants only); and
g) any other pertinent and relevant information to indicate the applicant is deserving of being awarded a prestigious AFRI EWD Pre- or Post-doctoral Fellowship.

Collaborating Mentor Letters – As applicable, the other mentor letter(s) should generally comment on items a) through d), f), and g) of the Primary Mentor Letter of Commitment noted above.

Reference Letter(s) – Three reference letters are required. Letters should not come from identified mentors, but must be obtained from other individuals who know the applicant well to substantially speak towards the applicant's academic and research accomplishments and ability to complete the doctoral degree program, or undertake an independent postdoctoral research, education, extension, or integrated research, education and/or extension project. Reference letters should be no longer than one-page.

Academic Standing

For **predoctoral applications**, documentation from the graduate advisor, graduate committee or the institution indicating that the applicant has advanced to candidacy, as per institutional requirements, by:

- **Fiscal Year 2020 competition: August 13, 2020**

For **postdoctoral applications**, documentation from the graduate advisor, graduate committee or the institution that all doctoral degree requirements were satisfied:

- **Fiscal Year 2020 competition:** no earlier than **January 1, 2017,** and no later than **May 13, 2021**

2) Logic Model – **PDF Attachment. 2-Page Limit. Required for all Research, Education, Extension or Integrated Project applications.** Title the attachment as 'Logic Model' and save file as 'LogicModel'.

   Include the elements of a logic model detailing the activities, outputs, and outcomes of the proposed project. The logic model planning process is a tool that should be used to develop your project before writing your application. This information may be provided as a narrative or formatted into a logic model chart. For more information and resources, see Integrated Programs' Logic Model Planning Process at the NIFA website.

   Failure to include a logic model may result in the application not being considered for review.

3) Management Plan – **PDF Attachment. 3-Page Limit. Required for all Research, Education, Extension, or Integrated Project applications.** Title the attachment as 'Management Plan' and save file as 'ManagementPlan'.

   The plan is to be clearly articulated and include an organizational chart, administrative timeline, and a description of how the project will be governed, as well as a strategy to enhance coordination, collaboration, communication, and data sharing and reporting among members of the project team and stakeholder groups. The plan must also address how the project will be sustained beyond termination of an award.

   The management plan must also include an advisory group of principal stakeholders, partners, and professionals to assess and evaluate the quality, expected measurable outcomes, and potential impacts for the proposed research, education and/or extension. Please include rationale for their role, and how they will function effectively to support the goals and objectives of the project. The plan must demonstrate how partners and stakeholders contribute to project assessment on an annual basis.

4) Data Management Plan (DMP) – **PDF Attachment. 2-Page Limit. Required for Research, Education, Extension, or Integrated Project applications.** Title the attachment as 'Data Management Plan' and save file as 'DataManagementPlan'**.**

   Clearly articulate how the project director (PD) and co-PDs plan to manage and disseminate the data generated by the project. The DMP will be considered during the merit review process (see Part V, B.). **See Part III, 3.1 of the NIFA Grants.gov Application Guide for NIFA attachment specifications.**

For preparation and inclusion of a DMP in your application, see Data Management Plan for NIFA-Funded Research, Education and Extension Projects at NIFA website. Also included on the web page are FAQs and information about accessing examples of DMPs. In addition, general guidelines for Data Management Planning for USDA agencies are available at the National Agricultural Library website.

5) Documentation of Collaboration – **PDF Attachment. No Page Limit.** Title the attachment as 'Documentation of Collaboration' in the document header and save file as 'Collaboration'.

   Evidence, *e.g.*, letter(s) of support, must be provided that the collaborators involved have agreed to render services. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application.

6) Preprints – **PDF Attachment. Limited to 2 preprints.** Title the attachment as 'Preprints' in the document header and save file as 'Preprints'.

   Preprints related to the Project Narrative are allowed if they are directly germane to the proposed project. Information may not be appended to an application to circumvent page limitations prescribed for the Project Narrative. Extraneous materials will not be used during the peer review process. Only manuscripts in press for a peer- reviewed journal will be accepted and must be accompanied by letters of acceptance from the publishing journals. Preprints attached in support of the application must be single-spaced. Each preprint must be identified with the name of the submitting organization, the name(s) of the PD(s), and the title of the application.

7) Minority-Serving Institution Documentation – **PDF Attachment.** Title the attachment as 'Minorityinfo' in the document header and save file as 'Minorityinfo'.
   a) Letter identifying percentage of applicable minority students.
   b) Request for Determination of Status– see Part III, B.

8) Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants – **PDF Attachment.** This is required for corporate applicants. See Part VI, 2 of the NIFA Grants.gov Application Guide for a description of the term, "corporation."

4. R&R Senior/Key Person Profile (Expanded)

Detailed information related to the questions on this form is available in Part V, 5 of the NIFA Grants.gov Application Guide. This section of the guide includes instructions about the people who require senior/key person profile, and details about the biographical sketch and the current and pending support, including a link to the suggested template for the current and pending support.

A Senior/Key Person Profile must be completed for the PD and each co-PD, senior associate, and other professional personnel, including collaborators playing an active role in the project. Collaborators only providing services or materials should not be listed in the R&R Senior/Key Person Profile. Evidence (letters of support) for this type of collaboration should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5).

- ***Project Role Field*** – Complete appropriately.

  ☼ For Predoctoral Fellowship Grant Applications – **The predoctoral student must be the sole PD listed on the application. The mentor should <u>not</u> be listed as a co-PD.** Select "Graduate Student" for the Predoctoral Fellowship applicant. Select "Other (Specify)" for the corresponding scientific mentor(s).

  ☼ For Postdoctoral Fellowship Grant Applications – **The postdoctoral student must be the sole PD listed on the application. The mentor should <u>not</u> be listed as a co-PD.** Select "Post Doctoral" for the Postdoctoral Fellowship applicant. Select "Other (Specify)" for the corresponding scientific mentor(s).

- **Other Project Role Category Field** – Complete appropriately, if applicable.
  Enter "Mentor" for corresponding scientific mentor(s).

- **Attach Biographical Sketch Field** – **PDF Attachment. 2-Page Limit** (excluding publications listings) per PD, co-PD, senior associate, and other professional personnel. Title the attachment as 'Biographical Sketch' in the document header and save file as 'BiographicalSketch' followed by the last name of the PD or co-PD such that each biographical sketch file in the application has a distinct file name.

  The Biographical sketch of the applicant (PD) and each co-PD, senior associate, and other professional personnel must be included. In addition, include:
  1) Author identifier (ORCID, https://orcid.org) of the researcher if available.
  2) Digital Object Identifier (DOI) of all publications where possible.

  If applicable, the application must include a list of data publications or published data products relevant to the proposed project, following recommended data citation format.

  In addition, Biographical sketch must include the following information:
  Activities that demonstrate scholastic achievement and excellence. These may include but are not limited to academic indicators, awards, honors, publications, presentations, professional society membership, etc. and other metrics that demonstrate scholastic achievement and excellence.
  - Predoctoral applicants must include Grade Point Average (GPA).
  - Postdoctoral applicants must include date of completion of the terminal degree.

The Biographical sketch of the Primary mentor (more than one Primary Mentor if integrated project only) must include the number of mentees mentored at least for the last 5 years.

The Conflict of Interest list must not be included in the biographical sketch, but it must be provided as a separate document (see Part IV, C. 7. b for more information).

- **Attach Current and Pending Support Field – PDF Attachment. No Page Limit.** Title the attachment as 'Current and Pending Support' in the document header and save file as 'CurrentPendingSupport'.

  Current and Pending Support for both the pre- or post-doctoral applicant and the scientific mentor(s) (as documentation of on-going work in the mentor's laboratory) must be completed.

  Current and Pending Support information is only required for the PD (i.e., the student) and the primary mentor. **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.**

  As an addendum to the Current and Pending Support, provide a brief summary for any completed, current, or pending projects that appear similar to the current application.

5. R&R Personal Data
As noted in Part V, 6 of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award. Part V.6 also notes the importance and use of the information.

6. R&R Budget
Detailed Information related to the questions on this form is available in Part V, 7 of the NIFA Grants.gov Application Guide.

Matching Funds.
If you conclude that matching funds are not required as specified under Part III, C., Cost Sharing or Matching, you must include an explanation for your conclusion in the Budget Justification. We will consider this justification when determining final matching requirements or if required matching can be waived. NIFA retains the right to make final determinations regarding matching requirements.

For grants that require matching funds as specified under Part III, C, the Budget Justification must list matching sources along with the identification of the entity(ies) providing the match as well as the total dollar amount being pledged. NIFA is no longer requiring written verification of commitments of matching support (a pledge agreement). However, you are still subject to documentation, valuing and reporting

requirements, etc. as specified in 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (the Uniform Guidance)," 7 CFR 3430, "Competitive and Noncompetitive Non-Formula Federal Assistance Programs – General Award Administrative Provisions," and program-specific regulations, as applicable. In instances where match is required, any resulting award will require the signature of an Authorized Representative. Only when NIFA receives the award signed by the AR will award funds be released and available for drawdown.

For applied Research or integrated Projects with an applied research component, if a funded project is commodity-specific and not of national scope, the grant recipient is required to match the NIFA funds awarded on a dollar-for-dollar basis from non-federal sources with cash and/or in-kind contributions.

The sources and the amount of all matching support from outside the applicant organization must be summarized on a separate page and placed in the application immediately following the Budget Justification. All pledge agreements must be placed in the application immediately following the summary of matching support.

Establish the value of applicant contributions in accordance with applicable cost principles. Refer to 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," for further guidance and other requirements relating to matching and allowable costs.

a. Budget Periods. Applications must contain a budget for each budget period for the entire duration of the proposed project. Annual and cumulative budgets are required.

If a Predoctoral fellowship grant application is funded, the Project Director will be required to attend one AFRI NIFA Fellows Project Directors' meeting during the performance period of the award.

Postdoctoral fellowship Project Directors are required to attend one AFRI NIFA Fellows Project Directors' meeting AND a PD meeting of the Foundational and Applied Science or the Sustainable Agricultural Systems program area priorities with which the project is most closely aligned during the performance period of the award.

Reasonable travel expenses should be included as part of the project budget. As part of the fellows' professional development, attendance to other scientific or professional meetings is encouraged, but the fellows must attend at least one Project Directors' meeting during the time of support.

See Part I, C. for limitation of budget amounts, use of funds, and budget periods.

- Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project specific activities.

- For Integrated Project Applications, projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component. Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project-specific activities.

Subcontract Arrangements. If it will be necessary to enter into a formal subcontract agreement with another institution, then refer to the following items.

- Letters of commitment (including proposed amount of subaward) and statement of work are required to be included in the application for each subaward. Letters of commitment are to be included in Field 12, Other Attachments of the R&R Other Project Information.
- If the cumulative amount for subawards exceeds 50 percent of the total Federal funds requested or in instances where the proposed subaward is to a Federal agency, then the applicant must provide budgetary detail (i.e., budget and budget justification) for each subaward. If this is the case then refer to Part V, 8 of the NIFA Grants.gov Application Guide for instructions on how to include this information as part of the application.

Field H. Indirect Costs – Indirect costs are not allowed on AFRI EWD Pre- and Post-doctoral Fellowship Grants.

Field K. Budget Justification **– PDF Attachment. No Page Limit.** Title the attachment as 'Budget Justification' in the document header and save file as 'BudgetJustification'.

All cumulative budget categories, with the exception of Indirect Costs, for which support is requested must be individually listed (with costs) in the same order as the cumulative budget. If consulting, collaborative, or subcontractual arrangements are included in the application, these arrangements should be fully explained and justified. The rate of pay for any consultant must be included, if known at the time of application. Please include a cost breakdown for the consultant, including the number of days in service, travel, and per diem, as well as the rate of pay. Letters of consent or collaboration signed by the Authorized Representative and other evidence should be provided in the Documentation of Collaboration (see Part IV, C. 3. f. 5) to show that collaborators have agreed to participate. A proposed statement of work, biographical sketch, and a budget for each arrangement involving the transfer of substantive programmatic work or the provision of financial assistance to a third party must be supplied. Allowable expenditures must be appropriately discussed in the budget justification. In multi-institutional applications, a budget and budget narrative must be included for each institution involved. The lead institution and each participating institution must be identified.

- *For Integrated Project Applications* – Each function should be represented by one or more objectives within the application. Projects must budget sufficient resources to carry out the proposed set of research, education, and/or extension activities that will lead to the desired outcomes. No more than two-thirds of a project's budget may be focused on a single component.

7. Supplemental Information Form
Instructions related to this form are explained in detail in Part VI, 1 of the NIFA Grants.gov Application Guide.

a. **Field 2. Program to which you are applying** – Enter the Program Code Name and the Program Code for the Program Area to which you are applying from the information provided in the Program Area Descriptions beginning in Part I, C. An application can only be submitted to one program area. Note that accurate entry of the Program Area Code Name and Program Area Code is extremely important for proper and timely processing of application. Failure to enter this information correctly may result in your application not being retrieved on time for review and subsequently not being considered for funding. If you have a question about which topic area is appropriate for your application, please contact the Program Area Contact.

b. **Field 8. Conflict of Interest List – PDF Attachment. No Page Limit.** Title the attachment as 'Conflict of Interest' in the document header and save file as 'Conflict of Interest'. See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to the suggested template.

   A Conflict of Interest List is required for all applications submitted to the AFRI. The Conflict of Interest List should be provided as a separate PDF attachment and not included in the vitae or resume. A Conflict of Interest List must be completed individually for all personnel who have submitted a Biographical Sketch in the R&R Senior/Key Personnel Profile. **Collate all individual Conflict of Interest lists into a single document file.** The lists can only be submitted as a single PDF attachment.

   Here is the required form for the Conflict of Interest List.