**SUMMARY OF PROPOSAL COMPONENTS**

**Agency:** USDA-National Institute of Food and Agriculture (NIFA)

**Program:** Foundational and Applied Science Program (FAS)

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| --- |
| *This checklist/outline addresses key portions of the proposal package preparation process, but it does not address all elements required to complete the Grants.gov application package or the budget. Those instructions are available in the* [*request for applications*](https://www.nifa.usda.gov/grants/funding-opportunities/agriculture-food-research-initiative-foundational-applied-science) *(RFA),* [*FAS Additional Information for Part IV C*](https://www.nifa.usda.gov/sites/default/files/2025-08/FY%202026%20AFRI%20Foundational%20and%20Applied%20Science%20%28FAS%29%20Additional%20Information%20for%20Part%20IV%2C%20C.pdf)*, and the* [*NIFA Grants Application Guide*](https://www.nifa.usda.gov/sites/default/files/2025-04/NIFA-5-2b-NIFA%20Grants.gov%20Application%20Guide%20March2025_remediated.pdf)*.* |

**Checklist of Proposal Components**

**SF 424 R&R Cover Sheet**

[ ]  No Narrative Attachments Required

**SF 424 R&R Project/Performance Site Location(s)**

[ ]  No Narrative Attachments Required

**R&R Other Project Information Form**

[ ]  Project Summary/Abstract

[ ]  Project Narrative

[ ]  Bibliography and References Cited

[ ]  Facilities and Other Resources

[ ]  Equipment

[ ]  Key Personnel Roles

[ ]  Logic Model (required for Integrated Projects, encouraged for others)

[ ]  Management Plan (required for Integrated Projects, encouraged for others)

[ ]  Data Management Plan

[ ]  Mentoring Plan (required for any projects involving any education, training, or mentoring)

[ ]  Documentation of Collaboration

[ ]  Preprints (if applicable)

**R&R Senior/Key Person Profile**

[ ]  Biographical Sketches

[ ]  Current and Pending Support

**R&R Personal Data** (optional)

[ ]  No Narrative Attachments Required

**R&R Budget**

[ ]  Budget Justification

**R&R Subaward Budget Attachments Form** (if applicable)

**Supplemental Information Form**

[ ]  Program to Which You Are Applying

[ ]  Conflict of Interest List

**AFRI Project Type Form**

[ ]  No Narrative Attachments Required

**Formatting Instructions for Narrative Components**

* Font size must be at least 12 point.
* Line spacing should not exceed six lines of text per vertical inch.
* Do not use a condensed or narrow font.
* Margins must be at least one inch in all directions.
* Follow the page limitations for each attachment.
* Number pages sequentially for each attachment.
* Title each attachment in the document header and save each file with the referenced name.
* Attachments must be in .pdf file format, and file names must be 50 characters or less.
* File names must be unique and cannot include any special characters, periods, blank spaces, or accent marks. Underscores may be used to separate filenames.

**Outline for Narrative Proposal Components**

**Project Summary/Abstract** (1-page limit)

* Title attachment as “Project Summary” in the document header and save file as “ProjectSummary”.
* Use this Project Summary/Abstract template: <https://nifa.usda.gov/resource/application-support-templates>.
* The summary should be approximately 250 words and should be a self-contained, specific description of the activities to be undertaken.
* List the names and affiliated organizations of all Project Directors/co-PDs and the title of the project at the top of the page.
* It should include overall project goals, supporting objectives, and plans to accomplish project goals (i.e., methods).
* It should include the relevance of the project to the goals of the Program Area or Program Area Priority.
* If relevant, applicants must state in the last sentence of the Project Summary section that the proposal is submitted in response to a specific commodity board topic.
* It should be informative to other persons working in the same or related fields, as understandable as possible to a scientifically or technically literate lay reader, suitable for dissemination to the public, and should not include any proprietary/confidential information.

**Project Narrative** (18-page limit [for standard grants; 7-page limit for Sabbatical, Equipment, Seed, and Rapid Response (A1712 and A1713)])

* Title attachment as “Project Narrative” in the document header and save file as “ProjectNarrative”.
* Note that reviewers will not be expected to access and evaluate information provided in the Project Narrative as URLs or hyperlinks.
* The Project Narrative must include all of the following (unless labeled “if applicable”):

***Response to Previous Review (****if applicable; limited to one-page)*

* This requirement only applies to Resubmitted applications.
* Provide a response to the previous review panel summary (containing the previous proposal number in the first line) titled “Response to Previous Review” as the first page of the attachment.
* The one-page “Response to Previous Review” does not count against the 7- or 18-page limit of the Project Narrative.
* Note: If you are resubmitting an application, enter the NIFA-assigned proposal number of the previously submitted application in the Federal Field (Field 4) of the SF 424 (R&R) form).

***Progress Report*** *(if applicable)*

* This requirement only applies to the Renewal applications.
* Include a progress report within the applicable page limitation of the Project Narrative.
* The progress report must include the implementation of the data management plan (DMP) of the previously funded project.
* Note: If you are submitting Renewal application, enter the NIFA-assigned award number of the previously funded application in the Federal Field (Field 4) of the SF 424 (R&R) form).

***Introduction***

* Include a clear statement of the long-term goal(s) and supporting objectives of the proposed project.
* Summarize the body of knowledge or past activities that substantiate the need for the proposed project.
* Describe ongoing or recently completed activities significant to the proposed project, including the work of key project personnel.
* Include preliminary data/information pertinent to the proposed project.
* When applicable, include in-depth information on:
	+ Estimates of the magnitude of the issues and the relevance to stakeholders and ongoing state-federal food and agriculture research, education, and extension programs.
	+ The role of stakeholders in problem identification, planning, implementation, and evaluation.
	+ Reasons for performing the work at the proposed institution.

***Rationale and Significance***

* Concisely present the rationale behind the proposed project.
* Describe the specific relationship of the project’s objectives to one of the Program Area Priorities (applications that do not address at least one Program Area Priority will not be reviewed).
* Clearly describe the potential long-range improvement in and sustainability of U.S. agriculture and food systems. These purposes are described under Purpose and Priorities in Part I § B of the RFA.
* Discuss any novel ideas or contributions that the proposed project offers.

***Approach***

* ***Objectives:*** All applications must include a statement of objectives or specific aims of the proposed project in clear, concise, complete, and logically arranged terms.
* ***Methods:*** Explicitly state the procedures or methodology you will apply in the proposed project. This section should include, but not necessarily be limited to, descriptions of:
	+ Stakeholder involvement, if applicable, in problem identification, planning, implementation, and evaluation.
	+ Proposed project activities, listed sequentially.
	+ Techniques to be employed in this project, including their feasibility and rationale.
	+ Expected results.
	+ How extension and education activities, if applicable, will be evaluated.
	+ How data will be analyzed or interpreted.
	+ Plans to communicate results to appropriate audiences, including relevant scientific peers, stakeholders and the public, as appropriate.
	+ Pitfalls that may be encountered.
	+ Limitations to proposed procedures.
* ***Project Timetable:*** The proposal must outline all important phases as a function of time, year by year, for the entire project, including periods beyond the grant funding period.

***Additional Information for Specific Project and Grant Types***

a) *For Education Project Applications*

 In addition to the Project Narrative requirements above, the proposed Education Project must clearly articulate:

* The potential for advancing the quality of education by addressing a specific problem or opportunity.
* The target audience and the level of education addressed.
* The long-term benefits to the institution, including how the institution attributes a high priority to the project and how the project is linked to and supported by the institution’s strategic plan.
* 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 education activities are successful in achieving project goals and in contributing to achievement of the stated program goals and outcomes.
* A dissemination plan describing the methods that will be used to communicate findings and project accomplishments.

b) *For Extension Project Applications*

* + Extension Projects must involve a series of connected learning activities that engage the public in practical problem solving. Programming must be more than a one-time event, a single publication, a one-dimensional activity, or a general public awareness campaign. Together, informal learning activities must be elements in a curriculum-based program that has learning goals and objectives.
	+ Extension Projects must be connected to both 1) scientific-research based information and 2) science-based teaching techniques and informal education principles.
	+ In addition to the Project Narrative requirements above, the proposed Extension Project must 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 must 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.
		- A dissemination plan describing the methods that will be used to communicate findings and project accomplishments.
* AFRI welcomes “community-based” Extension Projects. Community-based programming ranges from a single town to a county, collection of counties, state, or region. Applications with leadership from campus-based faculty specialists that incorporate programming/work of local agents are highly desirable.

c) *For Integrated Project Applications*

* Integrated Project applications must include at least two of the three functions of the agricultural knowledge system (i.e., research, education, and extension). Each function should be represented by one or more objectives within the application. Some Program Area Priorities may require all three functions of the agricultural knowledge system, and applicants should consult the relevant Program Area Description in the RFA for the specific requirements of the Program Area or Program Area Priority to which they are applying.
* 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 function.
* Integrated Projects must include individuals on the project team with significant expertise in each component of the project (research, education, and/or extension).
* 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 must 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 the achievement of the stated program goals and outcomes.
* In addition to the Project Narrative requirements above, the proposed Integrated Project must 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).
* A dissemination plan describing the methods that will be used to communicate project accomplishments and findings.
* AFRI encourages (but does not require) Integrated Projects that are suitable for 4-H audiences and stakeholder groups while meeting identified program priorities. Opportunities for engaging 4-H in AFRI proposals should align with the 4-H Mission Mandates of Science, Engineering and Technology; Healthy Living; and Citizenship. See guiding principles at the [4-H website](https://4-h.org/) or contact your university Cooperative Extension headquarters and/or State 4-H Program Office.

d) *For Workshop Grant Applications*

 In addition to the Project Narrative requirements above, substitute the following in the Approach section:

* A justification for the meeting.
* Recent meetings on the same subject with dates and locations.
* Names and organizational affiliations of the chair and other members of the organizing committee.
* A proposed program (or agenda) for the Workshop, including a listing of scheduled participants and their institutional affiliations.
* The method of announcement or invitation that will be used.

e) *For Sabbatical Grant Applications*

 In addition to the Project Narrative requirements above, substitute the following in the Approach section:

* A general description of the research, education, and/or extension interests and goals of the applicant in order to provide perspective for the application.
* A description of the project to be pursued while on sabbatical leave.
* A statement of how the sabbatical leave will enhance the capabilities of the applicant.
* A statement of future research goals and objectives once the sabbatical is complete and how the sabbatical will enable the applicant to pursue these goals.

f) *For Equipment Grant Applications*

 In addition to the Project Narrative requirements above, include:

* A general description of the project(s) for which the equipment will be used.
* How the equipment will fit into or enhance the research, education, and/or extension program.
* How the equipment will allow the applicant to become competitive for future funding or move into new research areas.
* Also include a description of other similar or complementary equipment available to the PD at the institution and why the requested equipment is necessary.

g) *For All Seed Grant Applications*

 Include all the components detailed in the Project Narrative section above and present enough detail to allow adequate evaluation.

* To be competitive, long-term goals and a statement describing how this Seed Grant will allow the applicant to become competitive for future funding **must** be included.

***Center of Excellence*** *(optional)*

* Only standard grant applications may be considered for Center of Excellence designation.
* Provide a brief justification statement at the end of the Project Narrative (and within the page limit) describing how UNL meets the standards of a Center of Excellence to do the following:
	+ Ensure coordination and cost effectiveness by reducing unnecessarily duplicative efforts regarding research, teaching, and extension in the implementation of the proposed research and/or extension activity.
	+ Leverage available resources by using public-private partnerships among agricultural industry groups, institutions of higher education, and the Federal Government in the implementation of the proposed research and/or extension activity; resources leveraged should be commensurate with the size of the award.
	+ Implement teaching initiatives to increase awareness and effectively disseminate solutions to target audiences through extension activities in the implementation of the proposed research and/or extension activity; and
	+ Increase economic returns to rural communities by identifying, attracting, and directing funds to high-priority agricultural issues in support of and as a result of the implementation of the proposed research and/or extension activity.
* Where practical, describe proposed efforts to improve teaching capacity and infrastructure at colleges and universities.

**Bibliography and References Cited** (no page limit)

* Title 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.
* Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication.
* All references must 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.

**Facilities and Other Resources** (no page limit)

* Title attachment as “Facilities & Other Resources” in the document header and save file as “FacilitiesOtherResources”.
* This information is used to assess the capability of the organizational resources available to perform the effort proposed.
* Identify the facilities to be used (Laboratory, Animal, Computer, Office, Clinical and Other).
* If appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project.
* Describe only those resources that are directly applicable to the proposed work.
* Provide any information describing the Other Resources available to the project (e.g., machine shop, electronic shop) and the extent to which they would be available to the project.

**Equipment** (no page limit)

* Title attachment as “Equipment” in the document header and save file as “Equipment”.
* Describe major items of equipment already available for this project and, if appropriate, identify location and pertinent capabilities.
* In addition to describing 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.

**Key Personnel Roles** (2-page limit)

* Title attachment as “Key Personnel” and save file as “KeyPersonnel”.
* Clearly describe the roles and responsibilities of the PD, co-PD(s), collaborator(s), and other key personnel.
* For Integrated Grant Applications, include an estimate of the percent of time devoted to research, education, and/or extension activities for key personnel.

**Logic Model** (2-page limit; required for Integrated Project Grants, Encouraged for Research, Education or Extension Projects)

* Title 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 information may be provided as a narrative or formatted into a logic model chart.
* Resources are available at <https://nifa.usda.gov/resource/integrated-programs-logic-model-planning-process>.

**Management Plan** (3-page limit; required for Integrated Project Grants, Encouraged for Research, Education or Extension Projects)

* Title attachment as “Management Plan” and save file as “ManagementPlan”.
* Identify each institutional unit contributing to the project and designate the lead institution or institutional unit.
* If it will be necessary to enter into a formal subcontract agreement with another institution, a statement of work is required for each subawardee. Clearly define the programmatic roles, responsibilities, and budget for each institutional partner.
* Clearly articulate a plan that includes 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.
* Address how the project will be sustained beyond termination of an award.
* 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.
* Demonstrate how partners and stakeholders contribute to project assessment on an annual basis.

**Data Management Plan** (2-page limit)

* Title attachment as “Data Management Plan” and save file as “DataManagementPlan”.
* The DMP should clearly articulate how the project director (PD) and co-PDs plan to manage and disseminate data generated by the project.
* If a project does not include data collection (e.g., a meeting with no proceedings), the DMP document could be limited to the following statement, “No data will be produced” with clear explanation.
* Regardless of the number of subawards, only one DMP should be submitted for the project and should cover data collected by all collaborators.
* The DMP should contain the following components depending on the type of research, education, and/or extension being conducted:

***Expected Data Type***

* Describe the type of data (e.g., digital, non-digital), how they will be generated, and whether the data are primary or metadata. Research examples include lab work, field work, and surveys; Education examples include number of students enrolled/participated, degrees granted, curriculum, and training products; Extension examples include outreach materials, number of stakeholders reached, number of activities, and assessment questionnaires.

***Data Format***

* Describe the expected data formats.
* Describe plans to:
	+ Use appropriate community-recognized standards and machine-readable formats, when they exist, to ensure scientific data is readily accessible and usable.
	+ Ensure the data sets contain enough information to allow independent use (understanding, validation, and analysis) of the data, regardless of the format used.
* If the data will be managed in domain-specific workspaces or submitted to public databases, indicate that their required formats will be followed.

***Data Storage and Preservation***

* Describe how you will store scientific data in a safe environment with adequate measures taken for its long-term preservation.
* Describe plans for storing and preserving data during and after the project and specify the data repositories, if they exist. Applicants are encouraged to consider using platforms, catalogs, and workspaces provided by USDA (e.g., the [Ag Data Commons](https://data.nal.usda.gov/)).
* *Note that databases or data repositories for long-term preservation may be the same that are used to provide Data Sharing and Public Access (see next section).*
* Estimate how much data will be preserved and state the planned retention period.
* Outline strategies, tools, and contingency plans that will be used to avoid data loss, degradation, or damage.

***Data* *Sharing, Protection, and Public Access***

* Describe your data access and sharing procedures during and after the grant.
* Name specific repositories and catalogs as appropriate.
* Include a statement, when applicable, of plans to protect confidentiality, personal privacy, proprietary interests, business confidential information, and intellectual property rights.
* Outline any restrictions such as copyright, confidentiality, patent, appropriate credit, disclaimers, or conditions for use of the data by other parties.

***Roles, Responsibilities, and Reporting***

* Specify who will ensure implementation of the DMP. This is particularly important for multi-investigator and multi-institutional projects.
* Describe plans to monitor the implementation of the DMP throughout the life of the project and after, as appropriate.
* Provide a contingency plan in case key personnel leave the project.
* Describe the resources needed for the DMP.
* If funds are needed, specify if they have been added to the budget request/budget narrative or are being provided from another source. Applicants should include adequate funds in the budget to support data management and submission fees as required by the platforms, catalogs, etc.

**Mentoring Plan** (2-page limit; required for all grant types—except workshop, equipment, and sabbatical grants—that involve student or participant training or mentoring. The guidelines below apply to all grant types except Predoctoral Fellowships and Postdoctoral Fellowships, which have their own unique requirements)

* Title the attachment as “Mentoring Plan” and save file as “MentoringPlan”.
* The Mentoring Plan (MP) must describe:
	+ Past or proposed training of individuals who will serve as mentors including equipping, mentoring, or monitoring activities they have received or will receive to help them effectively mentor students and trainees during the project.
	+ The groups of students or individual trainees to be mentored on the project, including students grades 9-12, undergraduate students, graduate students, postdoctoral students, professionals, and any other individuals to be trained or mentored on the project.
	+ Detailed mentoring activities to be delivered throughout the project to each distinct category or group of students and/or trainee participants, including those activities provided through research, education, Extension, or outreach efforts.
	+ Expected outcomes derived from the mentoring activities and prospective impact(s) on the food and agricultural sciences.

**Documentation of Collaboration** (no page limit)

* Title 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, including letters of commitment for subcontracts.
* The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application.
* If it will be necessary to enter into a formal subcontract agreement with another institution, a letter of commitment (including the proposed subaward amount) is required.
* See RFA for additional requirements for sabbatical, applied research, and equipment grant applications.

**Preprints** (if applicable; limited to 2 preprints)

* Title 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.
* 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.

**Biographical Sketches** (2-page limit per bio, excluding publications)

* Title attachment as “Biographical Sketch” in the document header and save file as “BiographicalSketch” followed by the last name of the key person such that each biographical sketch file in the application has a distinct file name.
* Provide a biographical sketch for the PD and each co-PD, senior associate, and other professional personnel.
* Note that you may also provide biographical sketches for consultants or collaborators.
* Include an Author Identifier (ORCID, <https://orcid.org>) of the researcher if available.
* Recommended headings are Education and Training, Research and Professional Experience, Synergistic Activities, and Publications.
* The biographical sketch should summarize academic and research credentials, as applicable (e.g., earned degrees, teaching experience, employment history, professional activities, honors and awards, and grants received).
* Provide a chronological list of all publications in refereed journals during the past four years, including those in press. List only those non-refereed technical publications that have relevance to the proposed project. List all authors in the same order as they appear on each paper cited, along with the title and complete reference as these usually appear in journals. Include Digital Object Identifiers (DOIs) 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.
* The Conflict of Interest list must not be included in the biographical sketch.
* See RFA for additional requirements for sabbatical grant applications and equipment applications.

**Current and Pending Support** (no page limit)

* Title attachment “Current and Pending Support” in the header and save file as “CurrentPendingSupport” followed by the last name of the individual.
* Provide a USDA-style current and pending support form only for the PD and co-PDs. Use the template available here: <http://nifa.usda.gov/resource/application-support-templates>.
* Include public or private support (including in-house support) to which personnel have committed portions of their time, if the salary support for person(s) involved is included in the budget.
* Note that this proposed project must be included in the pending section of the form.
* Total project time listed for each PD must be indicated as percent effort and not exceed 100% for concurrent (Current and Pending) projects.
* Show the total award amount for the entire award period (including indirect costs).
* The AFRI program will not fund an application that duplicates or overlaps substantially with other NIFA (including non-competitive funds such as Special Grants or Hatch formula funds) or other Federal funding. 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, especially previous National Research Initiative (NRI) or AFRI awards.
* See RFA for additional requirements for sabbatical, applied research, and equipment grant applications.

**Budget and Budget Justification**

* See the [RFA](https://www.nifa.usda.gov/grants/funding-opportunities/agriculture-food-research-initiative-foundational-applied-science) and the [NIFA Grants Application Guide](https://apply07.grants.gov/apply/opportunities/instructions/PKG00291311-instructions.pdf), and work with pre-award grant staff to prepare this component.

**Program to Which You Are Applying**

* Enter the Program (Area Priority) Code Name and the Program (Area Priority) Code for the Program Area Priority to which you are applying. An application can only be submitted to one Program (Area Priority). Failure to enter this information correctly may result in your application not being retrieved in time for review.

**Conflict of Interest List** (required; no page limit)

* Title attachment as “Conflict of Interest” in the document header and save file as “ConflictofInterest”.
* Use the required template for the Conflict of Interest List available here: <http://nifa.usda.gov/resource/application-support-templates>.
* 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 must be submitted as a single PDF attachment.