OFFICE OF RESEARCH,
DOCTORAL PROGRAMS, AND
STRATEGIC INITIATIVES

OCTOBER 2018

A GUIDE TO GRANT WRITING

SUBMITTING GRANT PROPOSALS

For Faculty at the Fox School of Business, and
School of Sport, Tourism, and Hospitality Management

Fox School of Business
TEMPLE UNIVERSITY®

TABLE OF CONTENTS

A GUIDE TO GRANT WRITING: SUMMARY

Putting a Proposal Together
(In 10 steps)

1. Identify potential funders.
2. Contact funding agency offices to test the feasibility of submitting a proposal. Send a letter of inquiry.
3. Determine the appropriate guidelines for submitting a proposal.
4. Identify the project team.
5. Write the proposal.
6. Compile supporting documents (i.e. BioSketch, List of Collaborators, Data Management Plan, etc.)
7. Collect letters of support and endorsements.
8. Work with Office of Research, Doctoral Programs, and Strategic Initiatives to develop the budget and corresponding justification.
9. Collect IRB approvals *(if applicable).*
10. Submit the proposal.

Writing Your Proposal
(*The Fundamentals*)

1. Follow proposal guidelines.
2. Grab the reviewer's attention quickly; write a compelling, clear, concise, well-organized, and passionate message. Use a title that describes the desired outcomes.
3. Define the broader impact. Describe how your research is transferable to other applications.
4. Compose a clear goal statement.
5. A literature review can be critically important in some types of proposals, yet in others, it is important to include only a brief background summary. Know when it is important and when it is not.
6. Use graphics to describe your methodology.
7. Create a timeline to document significant milestones.
8. Itemize the deliverables of your project.
9. Integrate evaluation activities to measure the goals, objectives, and outcomes you have proposed.
10. Write your abstract last. The quality of your abstract will determine if the reviewer will read the entire proposal. Review, polish, and rewrite.

01. INTRODUCTION

This workbook is intended to assist Fox and STHM faculty and students with writing proposals for research grants. It will present guidelines for writing successful grant proposals, with sections on researching funders, proposal writing stylistics, content, online resources, and internal resources available at the Fox School of Business and Management and in Temple's Office of the Vice President for Research.

Crafting a research proposal takes a lot of time – typically multiple months, and filled with hours of work. There are a number of steps and ever-varying bureaucratic requirements that you must navigate in order to secure funding. It is a long, but worthwhile undertaking, and with the help of this workbook, we will strive to help you achieve funding for your project of choice.

This guide will share the essentials of writing and submitting a grant proposal. The guide primarily uses guidelines from the National Science Foundation (NSF), a U.S. government agency that funds research and education in science and engineering, through grants, contracts, and cooperative agreements. Many Fox and STHM faculty and students submit proposal to NSF and its robust funding opportunities. While the requirements listed in this document are for NSF, many apply to other funding sources. You are encouraged to review your specific program requirements in full.

This guide **does not** provide insight into identifying research ideas. However, the best grant proposals start with a well-researched, solid idea. Before you get started on finding and submitting a grant application, consider the following:

1. **Prepare.** Investigate your idea to ensure that you are not reinventing the wheel. This will also help you gain an enriched background on the subject matter. Ask what precedents exist that may help you gain support and what obstacles have others run into that may affect your idea.
2. **Focus.** Narrow the scope of your grant. This will help direct your or your team's energy into the proper channels for the best chance at submitting a winning proposal.
3. **Politics.** The internal politics of your organization will be a key to gaining support for your idea. With regards to external politics, city and state officials can add support. Furthermore, you may have to consider any contenders for support within your organization. Are other people trying to get their ideas off the ground? Would it make sense to view them as partners instead of competitors? See the worksheet following the table for more details
4. **Plan.** Requesting funding is just one part of a larger operation. To ensure the best chance for your proposal, the plan must be exhaustively fine-tuned with every point and its consequences considered. Review this guide thoroughly to ensure you have identified key personnel to help you through the process and deadlines you need to meet. This will help keep you organized and on time.

02. PREPARING TO APPLY FOR A RESEARCH GRANT

2.1 Find a Funding Program

Finding an organization's website is relatively easy. It is, however, much more difficult to find the appropriate programmatic information once on the site. A large organization has many different programs, and your first step should be to review them and identify which programs provide research-funding opportunities and, more importantly, support your unique research interests.

One of the more comprehensive resources that aggregates, catalogs, and archives sources of grant funding is PIVOT. This resource provides many services to Temple faculty including targeted funding opportunity alerts, an expertise database and other services. Temple University is a PIVOT partner, granting all users with a Temple email address free access to the grant funding search engine. Like a targeted Google search, this site offers worksheets and search queries, making it relatively easy to identify grant information.

The search will generate a list of grant titles with synopses and links directly to funder's websites from which you can select those that best match your research interests. You can save searches and set-up e-mail notifications to generate based on your search preferences.

Another excellent resource for finding funding programs is the National Science Foundation (NSF). NSF is a U.S. government agency that funds research and education in science and engineering, through grants, contracts, and cooperative agreements. It accounts for about 20 percent of federal support to academic institutions for basic research. To find available funding, use the NSF's Awards Simple Search engine located in the middle of the page.

Additionally, the Grant Training Center, a nonprofit organization that aims to provide institutions and individuals the highest quality support to find, apply for, win, and manage federal, foundation, and corporate funding, has a robust set of tools for navigating the NSF website. Visit the Grant Training Center's blog to learn more about the NSF website.

See **Appendix E** for a comprehensive (but not exhaustive) list of online sources for finding funders.

2.2 Evaluate the Fit

According to the Grant Training Center, "Knowing who the funder is, what the funder wants, and how the funder wants a grant application assembled is essential to successful grantsmanship. Ultimately, seeking to understand first and asking to be understood second is practical advice for all proposal writers."
Therefore, once you have identified a potential funding source, use Dimensions—a new research information system that organizes publications, grants, policy, data and metrics, all in one place—to review the source's description and list of past funded projects to determine whether your research is well-suited to this particular organization or agency. For access to Dimensions, reach out to Joseph Ryan (joseph.ryan@temple.edu) in the Fox School's Office of Research, Doctoral Programs, and Strategic Initiatives.

See **Appendix C** and **Appendix D** for helpful information on evaluating your research idea and program fit.

2.3 Contact the Funding Agency

To gain an understanding of submission criteria in a particular program (and to develop a working relationship), it is advisable to contact the Program Officer responsible for the grant you are investigating before beginning to conceptualize a proposal. Contacting the potential funder is an easy way to receive early feedback about the fit of your proposed project with a particular organization. Funders like to know that you intend to send a proposal and might provide you with additional insights into what kinds of projects they wish to fund. Because Program Officers are inundated with many proposals, they prefer to eliminate any unlikely projects early on in the submission process with the expectation that they will then receive fewer, but more relevant proposals.

During your research, you most likely came across the name of the appropriate Program Officer to whom you can direct a letter of inquiry. However, if you do not have a name, call the agency or organization and ask to whom a letter of inquiry for your type of project should be sent. Even if you do have a name, it is a good idea to call the agency in advance to confirm that the person listed on the website is still in that position.

It is important to keep your message focused, detailing the intellectual merit and broader societal impacts of your proposed research, and emphasizing your vision and the passion you bring to this project. Include a brief description and ask if this type of project could be of interest to their organization and appropriate for the particular grant. Describe the potential outcome and how it matches the needs of the organization. Describe the project leader and their unique qualifications. Inquire about alternative funding sources. If you do not believe there is a clear fit, they might direct you to other agencies or organizations that match your research interests. After approximately three to four weeks, follow up by telephone. Inquire about how proposals are reviewed and the timing of decisions.

See **Appendix H** for a sample Letter of Intent.

03. KEYS TO WRITING A SUCCESSFUL PROPOSAL

3.1 General Tips

Reviewers are generally very busy individuals who must read dozens of applications in great detail, forming well-developed opinions about all of them. Your proposal must therefore do everything to make their job of understanding your proposal as easy as possible.

Writing a research proposal is something of an art, but a proposal can fall short if the artist does not use the proper tools. According to Dr. Francis Collins, Director of the NIH, "So many worthwhile research ideas get put into the unfunded category in reviews because the proposals are not written clearly and don't present the importance of the research forcefully enough."

A proposal must be clear, compelling, and easy to evaluate. The following tips proposed by Stanford University should help you achieve this.

A. Follow the Required Format

Your application has a better chance of succeeding if it is easy to read and follows the required format. Straying from the outline suggested by the potential funder is ill advised. Reviewers are expecting to find the information in your proposal in a specific order, and you should organize your application to meet their expectations. This creates an efficient evaluation process and keeps reviewers from wasting time hunting down critical information.

B. Plan Ahead

Prior to writing the proposal, consider the budget and how it is related to your research plan. Everything in the budget must be justified by the work you will propose to do. Do not propose more work than can be reasonably done during the proposed project period.

C. Make no Assumptions

Include enough background information to enable an intelligent reader to understand your proposed work. Do not assume the reviewer will inherently know the finer points of the subject with which your proposal deals – fill in any potential gaps you think the reviewer might have.

D. Organize Your Thinking

Start with an outline that reflects the suggested proposal organization of the potential funder. Write a preliminary topic sentence for each main section. Do the same for each main point in the outline.

E. Make the Case

Capture the reviewer's attention by making the case for why the sponsor should fund your research. Tell the reviewer why testing your hypothesis is worth the funder's money, why you are the person to do it, and how your institution can give you the support you will need to get it done.

F. Keep it Simple

Make one point in each paragraph. This is key for readability. Keep sentences to 20 words or less. Write simple, clear sentences. Use the active, rather than passive, voice, e.g., "We will apply the following methodology," rather than "The following methodology will be applied." Although neither is grammatically incorrect, the passive voice, which is more often used for academic research, complicates the sentence structure and distracts from your message. The passive voice is more readily accepted in scientific writing, because it eliminates the need for using pronouns. However, many believe that using the passive voice makes a sentence weak, diminishing the message.

G. Be Succinct

Use a clear and concise writing style so that a non-expert may understand the proposed research. You will likely be better informed on your topic than any reviewer, so make your points as directly as possible. Avoid jargon and excessive language. Keep your proposal stylistically forceful and unique, but avoid unnecessary loquaciousness. Spell out all acronyms on first reference. Be consistent with terms, references, and writing style.

3.2 The Power of Titles

The title should suggest the outcome the project aims to achieve. It can serve as the mini-abstract, providing the reader with some insights into the nature of the proposal. Phrase your title in language that reflects the mission of your funder. For example, if the funding agency aims to enhance youth entrepreneurship skills, then make certain that the words "youth" and "entrepreneurship" are in your title.

Although your title should stimulate interest, do not use a cute title – make it clear and unambiguous, using as few words as possible. If your title is phrased as a question, then be sure to provide the answer early in the proposal and abstract.

3.3. Summary: Writing a Proposal

- Keep it succinct – and be sure to remain with the agency's proposal length.
- Tell a story about real people and how they are affected by the "problem" discussed in the proposal or how they will benefit from the research.
- Use the active voice.
- Use a type face approved by the majority of federal agencies:
    - 12-point font: Times New Roman
    - 10-point font: Arial, Courier New, or Palatino Linotype
- Use headings to delineate sections of the proposal. Follow the outline and font style stipulated in the RFP.
- Use the funder's language to describe how your project fits in their mission.
- Avoid jargon and explain abbreviations and acronyms.
- Focus on positive opportunities, rather than on disparity and disadvantage. Put the emphasis on how investing in this research will create positive outcomes.
- Describe your issue within a local context. Unless it is a national study, provide background specific to the regional focus of the study.
- Use schematics to illustrate the plan of work.
- Use a clear and unambiguous title.
- Review, rewrite, polish the language and format the proposal.
- Repeat the words in your title throughout your proposal.
- Be realistic.
- Obey the page limit.
- Have a strong ending.

04. COMPONENTS OF GRANT PROPOSALS

4.1 Checklist

The following is a checklist that contains the necessary components for NSF grant proposals. Funding opportunities outside of NSF may differ in their requirements, though NSF is typically that most all-encompassing proposal process. Check the requirements for your specific funding program.

1. Cover Sheet
2. Proposal Title
3. Table of Contents
4. Proposal Contents
    - Abstract
    - Project Description:
        - Introduction – Statement of Needs
        - Goals and Objectives
        - Background – Literature Review
        - Methodology – Plan of Work
        - Deliverables
        - Timeframe
        - Evaluation
        - Summary – Outcomes
5. References Cited
6. Budget and Budget Justification
7. Letters of Support
8. Curricula Vitae
9. Temple University's Information
10. Agency Forms *

** Note that many funding agencies have specific forms intended to accompany a proposal. The agency will state in the proposal application in which order the forms need to be inserted.*

4.2 Proposal Guidelines

The National Science Foundation uses FastLane, an online system for preparing and submitting proposals, supplemental funding requests, and no-cost extensions and other notifications and requests. FastLane is also used to change principal investigators (PIs), transfer PIs, add subawards, for administration of proposals and awards by the Sponsored Projects Office (SPO) and NSF, and for panel peer review. The following is a sample proposal outline provided by the NSF:

4.2.1 Cover Sheet

1. Awardee & Project/Performance Site Primary Location
2. Program Description/Announcement/Solicitation Number
3. NSF Unit of Consideration
4. Remainder of the Cover Sheet

4.2.2 Title

The title of the project must be brief, scientifically or technically valid, intelligible to a scientifically or technically literate reader, and suitable for use in the public press. NSF may edit the title of a project prior to making an award.

4.2.3 Table of Contents

For NSF, FastLane automatically generates a Table of Contents for the proposal. The proposer cannot edit this form. For other funders, you may need to create your own table of contents.

4.2.4 Project Abstract

The project abstract or summary, which cannot be more than one page in length, consists of an overview, a statement on the intellectual merit of the proposed activity, and a statement on the broader impacts of the proposed activity. The summary describes the activities that would result if your proposal were funded and is your first opportunity to impress the reviewers.

A. Overview

The overview describes the activity that would result if the proposal were funded and includes a statement of objectives and methods to be employed. This introduction will illustrate the importance of the project in terms of its effect and impact.

B. Intellectual Merit

This section addresses the potential of the proposed activity to advance knowledge, answering the question of what is known and what is not. In doing so, this section speaks to your proposed project's ability to have a tangible, transformative effect on your field and others. The qualifications of the Principal Investigator (PI) and the institutional resources are also key elements in this section.

C. Broader Impacts

This section describes the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes. According to the NSF criteria, this section is about understanding and promoting teaching, training, research, and learning,

while at the same time advancing the participation of underrepresented groups. Overall, this branches out beyond what you cover in the previous section to address the beneficial effects your project will have not just on your field, but on the surrounding world.

4.2.5 Project Description

The Project Description should outline the general plan of work, including the broad design of activities to be undertaken, and, where appropriate, provide a clear description of experimental methods and procedures. Proposers should address what they want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful.

The Project Description should include an introduction with a statement of needs; goals and objectives; a literature review; the metholodogy; deliverables and timeframe; evaluation; and summary of outcomes. It should also include the Intellectual Merit and Broader Impacts components in a more expanded format than what is included in the abstract.

A. Page Limitations

Brevity will assist reviewers and Foundation staff in dealing effectively with proposals. Therefore, the Project Description (including Results from Prior NSF Support, which is limited to five pages) **may not exceed 15 pages.** Visual materials, including charts, graphs, maps, photographs, and other pictorial presentations are included in the 15-page limitation.

B. Results from Prior NSF Support

If any PI or co-PI identified on the project has received NSF funding (including any current funding) in the past five years, information on the award(s) is required, irrespective of whether the support was directly related to the proposal or not. In cases where the PI or co-PI has received *more than one award* (excluding amendments), they need only report on the one award most closely related to the proposal. Funding includes not just salary support, but any funding awarded by NSF. The following information must be provided:

(a) The NSF award number, amount, and period of support.

(b) The title of the project.

(c) A summary of the results of the completed work, including accomplishments, supported by the award. The results must be separately described under two distinct headings – Intellectual Merit and Broader Impacts.

(d) The publications resulting from the NSF award.

(e) Evidence of research products and their availability, including, but not limited to: data, publications, samples, physical collections, software, and models, as described in any Data Management Plan.

(f) If the proposal is for renewed support, a description of the relation of the completed work to the proposed work.

C. Collaborative Proposals

NSF encourages submission of proposals by groups of investigators – particularly inter-institutional, and often to promote projects of an interdisciplinary nature. . Unless stipulated in a specific program solicitation, however, such proposals will be subject to the 15-page Project Description limitation established above. PIs who wish to exceed the established page limitations for the Project Description must request and receive a deviation in advance of proposal submission

4.2.6 References Cited

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. If the document is available electronically, the website address also should be identified. Proposers must be especially careful to follow accepted scholarly practices in providing citations for source materials relied upon when preparing any section of the proposal. While there is no established page limitation for the references, this section must include bibliographic citations only and must not be used to provide parenthetical information outside of the 15-page Project Description.

4.2.7 Budget and Budget Justification

Each proposal must contain a budget for each year of support requested, unless a particular program solicitation stipulates otherwise. The amounts for each budget line item requested must be documented and justified in the budget justification as specified below. The budget justification should be no more than three pages for the proposing entity, as well as no more than three pages for EACH sub-awardee working on the project.

All necessary purchases for supplies, materials, and computing costs should be explicitly detailed in the Budget Justification. This will greatly assist in eliminating conflicts and questions as the active period of the project begins, because the awarding agency will have already reviewed and approved these costs. The standard of necessary and allocable should be applied.

A. Salary

NSF regards research as one of the normal functions of faculty members at institutions of higher education. Compensation for time normally spent on research within the term of appointment is deemed included within the faculty member's regular organizational salary.

As a general policy, NSF limits salary compensation for senior project personnel to no more than two months of their regular salary in any one year. This limit includes salary compensation **received from all NSF-funded grants**. This effort must be documented in accordance with the applicable cost principles. If anticipated, any compensation for such personnel in excess of two months must be disclosed in the proposal budget, justified in the budget justification, and must be specifically approved by NSF in the award.

These same general principles apply to other types of non-academic organizations.

NSF award funds may not be used to augment the total salary or salary rate of faculty members during the period covered by the term of faculty appointment or to reimburse faculty members for consulting or other time in addition to a regular full-time organizational salary covering the same general period of employment. Exceptions may be considered under certain NSF programs, e.g., science and engineering education programs for weekend and evening classes, or work at remote locations. If anticipated, any intent to provide salary compensation above the base salary must be disclosed in the proposal budget, justified in the budget justification, and must receive the prior written approval of the cognizant NSF Program Officer.

There is more flexibility for **Admin and Clerical Salaries** IF inclusion is critical to project activity, these activities can be readily identified, and costs are explicitly included in the approved budget or have prior approval from Program Officer. NSF expects that these charges will now be included in many proposals, moving forward. If clerical and administrative salaries are to be included, then a detailed explanation must be included in the Budget Justification.

Institutional Base Salary MUST be used as provided by the Dean's Office.

B. Travel

(a) Domestic Travel

For budget preparation purposes, domestic travel includes travel in the U.S., its territories, and Puerto Rico. Travel, meal, and hotel expenses of grantee employees who are not on travel status are unallowable.

(b) Foreign Travel

For budget purposes, travel outside the areas specified above is considered foreign. The proposal must include relevant information, including countries to be visited (also enter names of countries on the proposal budget), dates of visit, if known, and justification for any foreign travel planned in connection with the project.

(c) Materials and Supplies

The proposal budget justification should indicate the general types of expendable materials and supplies required. Materials and supplies are defined as tangible personal property other than equipment, costing less than $5,000 or another lower threshold consistent with the policy established by the proposing organization. Cost estimates must be included for items that represent a substantial amount of the proposed line item cost.

(d) Publication Costs

The proposal budget may request funds for the costs of documenting, preparing, publishing, or otherwise making available to others the findings and products of the work conducted under the grant. This generally includes the following types of activities: reports, reprints, page charges or other journal costs (except costs for prior or early publication); necessary illustrations; cleanup, documentation, storage and indexing of data and databases; development, documentation and de-bugging of software; and storage, preservation, documentation, indexing, etc., of physical specimens, collections or fabricated items.

(e) Indirect Costs

Except where specifically identified in an NSF program solicitation, the applicable US Federally negotiated indirect cost rate(s) must be used in computing indirect costs, such as Facilities & Administration (F&A), for a proposal. The amount for indirect costs should be calculated by applying the current negotiated indirect cost rate(s) to the approved base(s).

Domestic proposing organizations that do not have a current negotiated rate agreement with a cognizant Federal agency, and who are requesting more than a *de minimis* 10% recovery of modified total

direct costs should prepare an indirect cost proposal based on expenditures for its most recently ended fiscal year. Based on the information provided in the indirect cost proposal, NSF may negotiate an award-specific rate to be used only on the award currently being considered for funding. No supporting documentation is required for proposed rates of 10% or less of modified total direct costs. The contents and financial data included in indirect cost proposals vary according to the make-up of the proposing organization. NSF formally negotiates indirect cost rates for the organizations for which NSF has rate cognizance. NSF does not negotiate rates for organizations that are not direct recipients of NSF funding (e.g., subrecipients). The prime grantee is responsible for ensuring that pro-posed subrecipient costs, including indirect costs, are reasonable and appropriate.

(f) Unallowable Costs

The following categories of unallowable costs are highlighted because of their sensitivity:

- **Entertainment:** Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as tickets to shows or sporting events, meals, lodging, rentals, transportation and gratuities) are unallowable. Travel, meal, and hotel expenses of grantee employees who are not on travel status are unallowable. Costs of employees on travel status are limited to those specifically authorized by 2 CFR § 200.474.

- **Meals and Coffee Breaks:** No funds may be requested for meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments, and centers. See however, 2 CFR 200.432, for additional information on the charging of certain types of costs generally associated with conferences supported by NSF.

- **Alcoholic Beverages:** No NSF funds may be spent on alcoholic beverages.

See **Appendix F** for an example of a Budget Justification.

4.2.8 Current and Pending Support

This section of the proposal calls for required information on all current and pending support for ongoing projects and proposals, **including this project**, and any subsequent funding in the case of continuing grants. All current project support from whatever source

(e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. The proposed project and all other projects or activities requiring a portion of time of the PI and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support. Similar information must be provided for all proposals already submitted or submitted concurrently to other possible sponsors, including NSF. Concurrent submission of a proposal to other organizations will not prejudice its review by NSF.

If the project now being submitted has been funded previously by a source other than NSF, the information requested in the paragraph above must be furnished for the last period of funding.

If Current and Pending Support information is not required, insert text or upload a document in this section of the proposal that states, "Not Applicable." In FastLane, if Current and Pending Support information for all senior personnel is uploaded in a single PDF file associated with the PI, insert text or upload a document that states, "Not Applicable" for any co-PI or Senior Person.

4.2.9 Facilities, Equipment and Other Resources

This section of the proposal is used to assess the adequacy of the resources available to perform the effort proposed to satisfy both Intellectual Merit and Broader Impacts review criteria. Proposers should describe only those resources that are directly applicable.

Proposers should include an aggregated description of the internal and external resources (both physical and personnel) that the organization and its collaborators will provide to the project, should it be funded. Such information must be provided in this section, in lieu of other parts of the proposal (e.g., budget justification, project description). The description should be narrative in nature and must not include any quantifiable financial information. Reviewers will evaluate the information during the merit review process and the cognizant NSF Program Officer will review it for programmatic and technical sufficiency.

If there are no Facilities, Equipment, and Other Resources to describe, insert text or upload a document in this section of the proposal that states, "Not Applicable."

4.2.10 Special Information and Supplementary Documentation

Special information and supplementary documentation must be included as part of the Project Description (or part of the budget justification), if it is relevant to determining the quality of the proposed work. Information submitted in the following areas is not considered part of the 15-page Project Description limitation.

A. Postdoctoral Researcher Mentoring Plan

Each proposal that requests funding to support **postdoctoral researchers** must include, as a supplementary document, a description of the mentoring activities that will be provided for such individuals. If a Postdoctoral Researcher Mentoring Plan is required, FastLane will not permit submission of a proposal if the Plan is missing. In no more than one page, the plan must describe the mentoring that will be provided to all postdoctoral researchers supported by the project, irrespective of whether they reside at the submitting organization, any sub-awardee organization, or at any organization participating in a simultaneously submitted collaborative project. Proposers are advised that the mentoring plan may not be used to circumvent the 15-page project description limitation.

Examples of mentoring activities include, but are not limited to career counseling; training in preparation of grant proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices.

B. Data Management Plan

Proposals must include a supplementary document of no more than two pages labeled "Data Management Plan." This supplement should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results, and may include:

(a) The types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project.

(b) The standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies).

(c) Policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements.

(d) Policies and provisions for re-use, re-distribution, and the production of derivatives.

(e) Plans for archiving data, samples, and other research products, and for preserving access to them.

Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only one supplemental combined Data Management Plan, regardless of the number of non-lead collaborative proposals or subawards included. FastLane will not permit submission of a proposal that is missing a Data Management Plan. Proposals for supplementary support to an existing award are not required to include a Data Management Plan.

A valid Data Management Plan may include only the statement that no detailed plan is needed, as long as the statement is accompanied by a clear justification. Proposers who feel that the plan cannot fit within the supplement limit of two pages may use part of the 15-page Project Description for additional data management information. Proposers are advised that the Data Management Plan may not be used to circumvent the 15-page Project Description limitation. The Data Management Plan will be reviewed as an integral part of the proposal, coming under Intellectual Merit or Broader Impacts or both, as appropriate for the scientific community of relevance.

4.2.11 Biographical Sketch(es)

A biographical sketch (limited to two pages per investigator) is required for each individual identified as senior project personnel. The following information must be provided in the order and format specified. Inclusion of additional information beyond that specified below may result in the proposal being returned without review.

See **Appendix L** for an example of a Biographical Sketch.

4.3 Supporting Documents and Other Materials

4.3.1 Cover Letter

For non-federal funders, it is good practice to include a cover letter accompanying the application package. The principal investigator and the chief governance officer should sign this brief letter, printed on your letterhead. The letter should address the following:

(a) The name of the program for which you are applying.

(b) The applicant's qualifications.

(c) The project's expected outcomes.

4.3.2 Letters of Support

Sometimes, a funder will require a letter of support from the stakeholders of the project. Stakeholders might sometimes be legislators, but they are more commonly representatives of groups that might benefit from your work. These letters support the

need for the project and speak to the broader impact it will have. Demonstrating stakeholder support is important, and stakeholder endorsements will carry substantial weight with reviewers. If possible, include stakeholder support letters regardless of whether the proposal requires this type of documentation. Identify potential stakeholders that will add credibility to your proposal and ask them for a letter endorsing your research early in the process. Send them a brief abstract, invite them to proposal planning meetings, and inform them about the importance of your research. Do not involve them at the last minute in a mad scramble to pull together credible letters of support.

It is common practice for stakeholders to ask that you compose a letter yourself that they will then modify and mail out on their letterhead. The letter does not need to be complicated and only needs to state how your research best serves the need of the stakeholder agency and how you will benefit from the outcomes of the proposed work.

See **Appendix I** for a sample Letter of Endorsement.

4.3.3 Administrative Information for Temple University

The following information about Temple University and the Fox School of Business is often requested for cover sheets:

Applicant Name:
Temple University - The Commonwealth System of Higher Education

Applicant Address:
1801 N. Broad Street
Philadelphia, PA 19122-6003

Employer ID Number (EIN): (for NIH-DHHS use)	123-1365971
Tax ID Number (TIN): (for other federal agencies)	23-1365971
Congressional District:	PA - 002
State Senatorial District:	3rd – Shariff Street
State Representative District:	181st: Curtis Thomas, State Rep.
Animal Welfare Assurance:	OLAW - A3594-01 (IACUC) USDA - #23-R-0027 AAALAC PA - Accreditation issued 7/2/2015
Human Subjects Assurance:	00004964 (IRB Committee B, Behavioral and Social Sciences) 00004964 (IRB Committee A, Medical Intervention)
Affirmative Action Review:	08/06/1992
NSF Organization Code:	0033712000
NAICS Code:	611310
FICE Code:	003371
NIH Institutional Profile Number (IPF):	8240301
Most Recent Negotiated Indirect Cost Rate:	07/21/2003
Misconduct in Science Policy:	05/14/2002
Conflict of Interest Policy:	8/24.2012
DUNS #	05-712-3192
AUN #	4-26-51-760-1- 0000
CAGE CODE:	1QBP4

Cognizant Federal Audit Office
Director of Non-Federal Audits
Office of Inspector General
US Department of Education
Wanamaker Building
100 Penn Square East, Suite 502
Philadelphia PA,19107
215-656-6900

Federal Government F&A Rate Agency Contact
Ernest Kinneer
U.S. Department of Health and Human Services
Division of Cost Allocation
330 Independence Avenue, S.W.
Cohen Building, Room 1067
Washington, D.C. 20201
(214) 767-3261

Persons Authorized to Sign Proposals (authorized institutional representative):
Michele Masucci
Vice President for Research Administration
Professor of Geography and Urban Studies
1801 North Broad Street
Conwell Hall, Suite 401
Philadelphia, PA 19122
Voice: (215) 204-6875 Fax: (215) 204-4609
E-mail: michele.masucci@temple.edu

Administrative Office for Notification Purposes:
John Penner
Senior Grants and Contracts Specialist
3340 N. Broad Street
Student Faculty Center, Suite 427
Philadelphia, PA 19140
Tel: (215) 707-3887 Fax: (215) 707-8387
E-mail: john.penner@temple.edu

05. WORKING WITH TEMPLE UNIVERSITY

5.1 Office of Research, Doctoral Programs, and Strategic Initiatives at Fox

The Office of Research, Doctoral Programs, and Strategic Initiatives in the Fox School of Business supports faculty, staff, and doctoral students in grant administration and proposal preparation.

5.1.1 Services

Our services include:

- Helping find new funding sources.
- Building research networks by helping faculty and students connect to other researchers in the School and across campus.
- Providing guidance in proposal preparation.
- Coordinating with the Temple University Office of Research.
- Facilitating the grant application process with the Temple University Office of Research.
- Assisting with the proposal entry through the Electronic Research Administration process.
- Advocating for faculty with the Office of the Dean and the Temple University Office of Research.
- Provide copyediting free of charge to Fox and STHM faculty and doctoral students.

Visit our website to learn more about our services.

When working with the Office of Research, Doctoral Programs, and Strategic Initiatives, the following sponsored project proposal submission requirements should be kept in mind:

- All grant proposals must be submitted through the Temple University Office of Research, Sponsored Project Office.
- The Temple University Office of Research administrator for the Fox School and School of Tourism and Hospitality Management is John Penner.
- All proposals and contracts must be entered in the Electronic Research Administration (eRA) platform.
- Human Subject protocol and exemption and Conflict of Interest documentation must be entered through the eRA software.
- All proposals must be in the Temple University Office of Research five working days prior to the deadline. The Fox Office of Research, Doctoral Programs, and Strategic Initiatives will need an abstract (not necessarily in final format), draft project description, and a budget and budget justification two weeks prior to the deadline.

5.1.2 Expectations of Ethical Behavior in Research Practice

The Office of Research, Doctoral Programs, and Strategic Initiatives and the Fox School of Business and Management support the highest standards for ethical behavior in research. The school will not support the following research initiatives and practices:

- Falsifying data in research projects.
- Poor research methodology/lack of attention to detail.
- Plagiarizing significant blocks of text.
- Simultaneously submitting identical articles to two or more journals.
- Refereeing papers unfairly or with bias.
- Receiving joint authorship of a paper without making a material contribution.
- Abusing organizational resources for personal consulting.

5.1.3 Contact the Office of Research at the Fox School

For more information, contact:

Joseph P. Ryan
Senior Associate Director of Research and Administration
Office of Research, Doctoral Programs, and Strategic Initiatives
Fox School of Business and Management
Temple University
Email: joseph.ryan@temple.edu
Phone: 215-204-7040

Paul A. Pavlou
Senior Associate Dean & Milton F. Stauffer Professor
Office of Research, Doctoral Programs, and Strategic Initiatives
Fox School of Business and Management
Temple University
Email: pavlou@temple.edu
Phone: 215-204-4252

5.2 Office for the Vice President for Research (OVPR)

While the Office of Research, Doctoral Programs, and Strategic Initiatives assists faculty at the Fox School in developing and submitting proposals, Temple University's Office of Research Administration in OVPR has purview for submitting all proposals for grants and contracts for research and other scholarly activities to public agencies (federal, state, or local), private non-profit research organizations (such as the American Heart Association), and industry (firms such as Google, Walmart, and Microsoft). Sponsored Programs staff assist investigators in the preparation and submission of all proposals. Aside from certain fellowships that are awarded directly to individuals, principal investigators or program directors may not apply for or receive funding directly from

sponsoring organizations without receiving University approval. All proposals must be processed through the Sponsored Programs Office.

Research-related activities that involve corporate contracts also come under the purview of Temple University's Sponsored Programs. The University's Office of Development is responsible for the solicitation of private sector development funds from corporations, foundations, associations, and individuals. Therefore, all proposals for sponsored projects to private foundations and corporations must be coordinated with and receive approval from both Sponsored Programs and the Office of Development.

To obtain approval for all proposals (including proposed contracts), the PI or research administrator must submit the proposal materials though the university electronic research administration software (eRA).

5.2.1 Temple Administrative Checklist

- Connect with Office of Research, Doctoral Programs, and Strategic Initiatives.
- Review IRB requirements
- Work with the Office of Research, Doctoral Programs, and Strategic Initiatives to complete the eRA@TU, including the electronic Sponsored Project Administration form – the eSPAF. This must be electronically submitted five working days prior to the submission deadline.

5.3 eRA@TU: Electronic Research Administration Software

5.3.1 Submitting a Proposal though eRA@TU

The eRA software used by Temple serves as an archive for all the administrative forms supporting the proposal. The PI or research administration staff will use the online forms to document funder, PIs, budgets, budget justifications, cost sharing documentation, approvals, proposal narrative, and the Temple University-required Sponsored Project Administration Form. Tutorials and Instructions are available at https://era.temple.edu/tu_login/login.asp

The final step in the eRA process of submitting proposals and contracts is the circulation of all the proposal documents to the relevant administrative units for approval. This includes circulation for signature to the PI, the PI's Department Chair and Dean, and the Univeristy's Office of Research.

5.3.2 Timing Your Grant Submission

eRA@TU provides the online mechanism for working with the Office of the Vice President for Research and processing your grant application through the university. The completed online application to eRA@TU must be submitted no later than **five working**

days prior to the submission deadline. No proposal can be submitted to a funding agency without appropriate OVPR approval. For faculty and staff at the Fox School of Business and the School of Tourism and Hospitality Management, the Office of Research, Doctoral Programs, and Strategic Initiatives will facilitate the submission process. It is important to notify the Center as soon as you plan to apply for a grant or contract.

5.3.3 After Submitting

All proposals arrive at NSF electronically –through fastlane.nsf.gov. The proposals are routed based on the program announcement number or the NSF division given by the PI. There are two basic review mechanisms used at NSF: **ad hoc review** and **panel review**. Both are single-blind peer-review mechanisms; While a list of preferred reviewers can be submitted with your proposal, the actual reviewers are not disclosed; the reviewers know who the PI is, but the PI does not know who the reviewers are.

5.4 Temple University Institutional Review Board

All Temple University research involving human subjects must be reviewed to ensure the safety, privacy, and well-being of all human participants in the project. To this end, Temple University's Institutional Review Board (IRB) reviews and approves or makes recommendations to modify or disapprove research protocols submitted by faculty, staff, and student investigators. The IRB review process is guided by federal rules and regulations and is based on the Protection of Human Subject Code of Federal regulations, the Belmont Report, and provisions of 45CFR46-Protection of Human Subjects requiring institutions receiving federal funds to have all research involving human participants be approved by an IRB.

The IRB reviews only human subject research. Only if an activity can be considered "research" and involves "human subjects" should it be subjected to IRB review.

The appropriate forms for IRB review and an algorithm for determining whether an activity falls under the category of "Human Research" can be found at the Temple University IRB website: **http://research.temple.edu/irb**

You are responsible for obtaining IRB review and approval (or an IRB determination that the human research is exempt) prior to conducting Human Research.

If you have any questions about whether an activity is Human Research, please submit a synopsis of the proposed activity to:

Chad Pettengill, IRB Director
3340 North Broad Street, Suite 304
Philadelphia, PA 19140
chad.pettengill@temple.edu

Submitted activities may fall under one of the following four regulatory classifications:

- **Not Human Research:** Activities must meet the DHHS or FDA definition of "Research" involving "Human Subjects" for the activity to fall under IRB oversight. Activities that meet neither definition of "Research" involving "Human Subjects" are not subject to IRB oversight or review. Review the "WORKSHEET: Human Research Determination" for reference (attached for your convenience at the back of this workbook). Contact the IRB in cases when it is unclear whether an activity meets the regulatory definition of Human Research.

- **Exempt:** Certain categories of Human Research may be exempt from regulation. It is the responsibility of the IRB, not the investigator, to determine whether Human Research is exempt from IRB review. Review the "WORKSHEET: Exemptions" (attached for your convenience at the back of this workbook) for reference on the categories of research that may be exempt.

- **Review Using the Expedited Procedure:** Certain categories of non-exempt Human Research may qualify for review using the expedited procedure. Review the "WORKSHEET: Expedited Review" (attached for your convenience at the back of this workbook) for reference on the categories of research that may be reviewed using the expedited procedure.

- **Review by the Convened IRB:** Non-Exempt Human Research that does not qualify for review using the expedited procedure must be reviewed by the convened IRB.

Forms relating to the IRB can be found here: http://research.temple.edu/irb-forms-standard-operating-procedures.

See **Appendix J** for Guidelines for IRB Review.

06. THE GRANT GLOSSARY

Audit (Financial)
An examination of an agency's accounting documents by an outside expert. Upon review, the expert prepares an opinion as to the consistency and conformity with Generally Accepted Accounting Principles. Audits are generally conducted after the end of the fiscal year.

Audit (Program)
A review of the accomplishments of a grant-funding program by the staff of the funding agency.

Beneficiary
The target population that will potentially gain from the outcome of the research activity or grant.

Carryover Funding
In a multi-year project, carryover allows the grantee to use the current year's unspent money during the following year of the project. The funding agency's approval is typically required to carry over unspent money into the following year. In some instances, the funding agency will issue institutional approval of carryover funds.

Code of Federal Regulations (CFR)
The body of rules governing the management of federally-sponsored agreements. These rules are governed by the White House Office of Management and Budget (OMB)'s Uniform Guidance. This government-wide framework for grants management is an authoritative set of rules and requirements for Federal awards that synthesizes and supersedes guidance from earlier OMB circulars. For more details, visit **grants.gov**.

Contract
A legal instrument used by government agencies and other organizations for the procurement of goods or services. It may also be used by the federal government to acquire property or services ultimately intended for public use. Refer to the back to this workbook for a guide on creating contracts.

Cost Accounting Standards
Accounting rules incorporated into OMB Uniform Guidance that require, among other things, (1) consistency in the treatment of costs as either direct or indirect, and (2) consistency in budgeting and accounting for costs. (See Code of Federal Regulations)

Cooperative Agreement
A legal instrument used by the federal government that functions as a cross between a grant and a contract. It is used to transfer property, money, services, or anything of value

to a recipient in order to accomplish a public purpose authorized by federal statute (excluding the purchase or lease of property or services for the direct benefit of the federal government) whenever substantial involvement between the recipient and the federal government is anticipated in the performance of the contemplated activity.

Cost-Plus-Fixed-Fee Contract
Provides a fixed fee to a for-profit contractor in addition to reimbursement for costs incurred. This fee remains constant unless the scope of the contract changes. For projects over a year in length, fixed-fee contracts should include progress payments.

Cost Reimbursement Contract
A contract that allows for the reimbursement of costs. However, it does not provide a fee. Educational institutions and other non-profit institutions are usually awarded cost reimbursement.

Cost Sharing
The University's portion of the cost of a sponsored agreement. Cost sharing may be mandatory (required by the agency as a condition of receiving the award) or voluntary (incorporated into a proposal, but not required). Cost sharing reduces the cost of the project for the sponsor, while increasing the cost for the University. Investigators are discouraged from proposing voluntary cost sharing unless there is clear and convincing evidence that it will make the proposal more competitive. Note: the University recently revised this policy.

Direct and Indirect Costs
OMB Circular A-21 defines direct costs as those costs necessary to meet a project's specific scientific, programmatic, or technical requirements. Indirect costs, as defined by A-21, are those costs incurred for common or joint activities of the university. Indirect costs are either facilities-related (library, maintenance, utilities, depreciation, etc.) or administrative (executive, finance, personnel, departmental, etc.), and are therefore also referred to as F&A Costs.

Encumbrance
Undisbursed funds for a specific purpose within the framework of a committed project. For example: a computer that has been ordered may not arrive or be purchased for several months. Funds were encumbered when the computer was ordered, but funds are not yet recorded as having been disbursed.

Effort Report
The disclosure, accounting, and reporting of an individual's proportional time spent on sponsored agreements and other University activities expressed as a percentage of total time.

Facilities and Administrative (F&A) Costs
A federally negotiated indirect costs rate that applies to all proposals, including those submitted to for-profit and federal entities. For Temple University, as of 2018, this rate is a range, from 26% for off-campus research, to 39.4% for NSF-funded projects, to 58.5% most other federally funded project. Also referred to as overhead costs.

Federal Register
The Government Printing Office publishes this daily document, which informs the public of regulations affecting federally sponsored agreements. The Federal Register publishes legal documents, as well as rules and regulations, for implementing federally funded grant programs.

Fiscal Year (FY)
A 12-month accounting period. For Temple University, the Fiscal Year begins July 1 and ends June 30. For federal government agencies, the fiscal year begins October 1 and ends September 30. Funding cycles would conform to University fiscal years.

Fixed Price Contract
Used when a recipient can accurately estimate the total cost of the work to be done or the goods to be supplied. This document ensures that the contractor completes the work for a previously agreed-upon amount of money.

Gifts
Gifts support areas of endeavor that may not have sufficient funding to complete a task. Gifts generally do not require a deliverable or the rendering of services on behalf of the sponsor. The University does not usually require fiscal reporting for gifts that may be designated or undesignated for a particular purpose.

Grantee
The recipient of grant funds.

Grantor
An agency, foundation, or governmental unity that awards grants.

Grant
A financial assistance mechanism providing money, property, or both, to an eligible entity to carry out an approved project or activity. Grantees are typically educational institutions, hospitals, and other non-profit organizations.

In-Kind
A non-cash donation of labor, facilities, or equipment to the project.

Grant Officer/Administrator
A person employed by the granting agency who is responsible for monitoring expenditures and ensuring that grantor regulations are being followed. The grant officer negotiates the award for the grantor, approves changes during the project, and potentially takes action on audit findings upon completion of the project.

Lead Agency
The agency with the primary responsibility for allocating and approving funding. Responsible for grant oversight.

Matching Funds
Non-grant funds contributed by outside entities to supplement the funding a grantor provides. Many funding agencies stipulate that part of the funding for the proposed research comes from other sources or matched funds.

No-Cost Extension
Prolongs the time period of a grant without providing additional funding. This is used primarily when the project is incomplete and budgeted grant funds remain available for use in the extension period.

Not-For-Profit
An incorporated organization in which none of the earnings are distributed to the stockholders, trustees, or individuals who do not share the profit. The 501(c)(3) is an incorporated not-for-profit with tax-exempt status. Additionally, it may not actively influence legislation or participate in campaign activity for or against political candidates. The 501(c)(3) is eligible to receive tax-deductible contributions.

Passthrough
A grantee receiving funds that are subsequently allocated to another individual or agency as a sub-contract.

Program Officer/Administrator
The person responsible for selecting projects to be funded and for ensuring that projects are successfully completed. The Program Officer's primary responsibility is programmatic or technical, not fiscal.

Progress Payment
A method of receiving funds from a sponsor when the grantee does not qualify for a letter of credit or for advance payments. Progress payments are reimbursements for which the grantee bills the funding agency.

Project Director/Principal Investigator (PI)
The person designated to initiate, plan, and carry out the project. This individual is responsible for submitting all technical materials. Co-PIs are not formally recognized by some agencies (e.g. NIH), but they do, however, work closely with the PI to ensure

compliance with the financial and administrative guidelines of the award, including technical and administrative reports, justifications, publications, announcements, etc.

Site Visit

In cases where large sums of money or long-range support is involved, prior to making an award, a funding agency may visit a prospective grantee. The agency may want to obtain fiscal information, inspect facilities and equipment, and meet with representatives from the institution.

Sponsored Agreement

Grants, contracts, and cooperative agreements with government agencies (federal, state, and local) and private sources (foundations, corporations, etc.) under which the University agrees to perform a certain scope of work, according to specified terms and conditions, for specific, budgeted, monetary compensation. Effort must be apportioned to each sponsored agreement with the residual, if any, (non-sponsored) funds assigned to the University.

Sub-Contract/Sub-Grant/Sub-Agreement

A document authorizing a third party to perform a large part of the work to meet the requirements of an award provided to the grantee. Depending on the extent of the involvement, the document may also be called a consortium agreement. All sub-contracts/agreements require review by University Counsel and signature by the Vice President, Chief Financial Officer, and Treasurer.

Supplemental Funds

Additional funds awarded to a grantee from a funding agency for a project. Supplemental funds may be available to allow a project to continue for an extended period of time, to expand the project's scope, or to prevent unforeseen cost overruns. Grantees must request supplemental funds in writing several months before the project is due to terminate.

Transfer between Line Items

The redistribution of funds from one expense category to another after a project is underway. Grantees must obtain permission for such transfers from OVPR and, if applicable, the funding agency.

Source: Sponsored Project Administration, Office of the Vice President for Research, Temple University. PDF Version Available.

07. APPENDICES

Appendix A: Getting Started Worksheets

What activities do we want to fund?
Why is external funding needed?

Appendix B: Preparing the Concept and Writing the Introduction

Practice delivering your message ***(Respond to the following questions and build your introduction.)***	
What is the research question?	
Why is it important?	
Intellectual Merit: How would you contribute to the existing knowledge base?	
What is unique about your approach?	
What are the expected outcomes of your research?	
Broader Impact: Who benefits from this research?	

Practice delivering your message ***(Respond to the following questions and build your introduction.)***	
Why is your research team uniquely qualified?	
Why should this agency fund your proposal?	
How does this research fit with the mission of the funding institution?	
Anything else?	

Appendix C: Goals and Objectives

Goals *(Focus on outcomes not activities.)*	Objectives *(Measurable and directly related to achieving the goal.)*
1	1
	2
	3
	4
2	1
	2
	3
	4
3	1
	2
	3
	4
4	1
	2
	3
	4
5	1
	2
	3
	4

Appendix D: Milestones, Tasks and Deliverables

Milestones, Tasks, *and* Deliverables	Month											
	1	2	3	4	5	6	7	8	9	10	11	12

APPENDIX E: SOURCES OF FUNDING

COMMUNITY OF SCIENCE (COS) PIVOT
www.cos.com

DIMENSIONS
www.dimensions.ai

THE FOUNDATION CENTER
fdncenter.org

GRANTS.GOV
grants.gov

KAUFFMAN FOUNDATION
www.kauffman.org

MICHIGAN STATE UNIVERSITY
www.lib.msu.edu/harris23/grants/privint.htm

KNIGHT FOUNDATION
www.knightfoundation.org

NATIONAL SCIENCE FOUNDATION (NSF)
www.nsf.gov

SLOAN FOUNDATION
sloan.org

U.S. DEPARTMENT OF EDUCATION
www.ed.gov

U.S. DEPARTMENT OF COMMERCE
www.commerce.gov

U.S. OFFICE OF INSPECTOR GENERAL
oig.hhs.gov

APPENDIX F: Budget Components

Budget Item	Details
Personnel (Direct Labor) Faculty Students Staff	List the names of faculty, students, and staff working on the project and allocate the percentage of their time involved with the project.
Fringe Benefits Faculty Students Staff	Includes the percentage allocated to fringe benefits for each staff working on the project. Fringe benefits include health insurance, social security, workers compensation, and retirement benefits. The Fringe benefit rate may vary and current rates for Temple University faculty, students, and staff can be found at http://www.temple.edu/controller/researchaccountingservices/grant_accounting/index.htm
Travel	Allocate a percentage of the budget to travel. Describe the intent of the travel in the budget narrative.
Equipment	Items costing less than $2,500 are considered to be supplies; items costing more than $2,500 are listed under equipment.
Supplies	
Contractual	Includes services provided by individual consultants, lease arrangements on equipment, etc.
Other Direct Costs	This provides for items such as the cost of data acquisition, publication costs, etc.
Indirect Costs	Temple University's negotiated indirect cost rate. Check with the Sponsored Projects Administration in the office of the Vice President for Research to determine the applicable rate.

APPENDIX G: Budget Template

Budget Item		Year 1	Year 2	Year 3	Total
A.	Personnel				
A1.	List PIs, Other faculty, clerical, post-doctoral fellows, doctoral students, student works				
A2.					
A3.					
A4.					
A5.					
A6.					
A7.	Total Salaries (A1 through A6)				
A8.	Fringe Benefits (Fringe benefit rates change each year. Check with the Office of Research, Doctoral Programs, and Strategic Initiatives for current rates.)				
	Fringe for faculty summer				
	Fringe for full time				
	Fringe for doctoral students				
	Other fringe				
A9.	Total Personnel (A7+A8)				
B.	Equipment				
C.	Alteration/Renovation				
D.	Tuition Remission				
E.	Other				
E1.					
E2.					
F.	F & A Cost Reduction				
G.	Total University Costs (A9 through F)				

APPENDIX H: Sample Letter of Intent

Opening Paragraph

This serves as your summary statement or abstract and should be able to stand alone. If the reviewer reads nothing else, he or she should understand your proposal idea from this paragraph.

The Opening Paragraph should answer the following questions:

- Who wants to do what?
- How much are you requesting and over what period?
- Is this a portion of a larger project cost?

The Opening Paragraph may indicate if the LOI is a response to an RFP or may make the connection between the foundation's interest and your project. Keep this paragraph short. You will have time later for explaining your rationale, your methodology, and for establishing your credibility.

Statement of Need (1-2 paragraphs)

This section answers the "why" of the project. Explain what issue you are addressing. Articulate why you are responding to the issue(s) in the way that you have. State briefly the importance of this project in the field in which you will be working. Note who benefits.

Project Activity (The bulk of the document)

This section answers the "what" and "how" of the project. Give a general overview of the activities involved. Give more detailed information to the degree that space allows. Highlight why your approach is novel and merits special attention. Indicate any collaborations with other organizations and what their roles will be, and be specific about who does what.

Anticipated Outcomes (1-2 paragraphs)

State the specific outcomes you plan to achieve. Indicate how evaluation is part of the project – how will you know you have achieved these outcomes.

Credentials (1-2 paragraphs)

Demonstrate why your institution or your staff is best equipped to carry out this activity. Put relevant historic background about the institution here. Do not attach bios compiled for other opportunities (for example, NIH or NSF) as these are too long and follow a recognizable, federally specified format. Instead, highlight information such as awards, rankings, and tangible measure that set you and your team apart from other applicants.

Budget (1-2 paragraphs)

State the total project cost and the amount requested from the funder. Indicate broad categories of activities to be funded. Include other sources of funding, both cash and in-

kind. Especially indicate what the university or school will contribute. Do not overlook the value of all in-kind contributions, including those of collaborators.

Closing (1 paragraph)

Offer to provide any additional needed information. Give a contact name and contact information for follow-up. Indicate if one person is the administrative contact and another is the program contact. Express appreciation for the reader's attention and/or the opportunity to submit if it is in response to a RFP. Ask to submit a full proposal.

Signature

Generally, it is best to have the highest-ranking person available sign the letter. This indicates institutional support

APPENDIX I: Sample Letter of Endorsement

Dear [Salutation]:

It gives me great pleasure to offer our support for Temple University's research proposal to _____. We are committed to collaborating with Temple as they bring research and training to our facilities. The proposed Center will collaborate with our four Community partners to provide training for our residents and members of our Resident Councils.

In addition to our goals of building business and leadership skills, our organization strives to engage other institutions to leverage resources and assist in promoting economic enhancement and supportive services for our residents. The proposed research project addresses those particular needs and we very much value the potential outcomes of this partnership.

This project provides an excellent opportunity for our stakeholders to access resources and research outcomes related to job readiness, business development, and leadership building. We are committed to participating in the proposed research initiative and will work with the project leadership to ensure that quality programs and resources reach our stakeholders. We look forward to continuing our long-standing relationship with Temple, and I sincerely hope that your Agency will invest in Temple University's research and outreach initiative.

Sincerely,
[Name]

APPENDIX J: Guidelines for IRB

Exempt Research *(IRB office determines if proposal is exempt from review)*	Expedited Review *(Two members of the IRB committee review bi-weekly)*	Full Committee Review *(Full IRB committee review presented at monthly meeting)*
• Research conducted in established educational settings. • The identity of participants is not revealed. • Results cannot be traced back to the participants. • Participants are not made aware of research goals or of the process requiring their involvement. • Participants are not minors or members of "at risk" or vulnerable populations.	• Research which poses minimal risk to the participants and participation in which would cause no greater harm or discomfort than that ordinarily encountered in daily life. • Proposals that include many protocols. • Participants are not minors or members of "at risk" or vulnerable population.	• Required for all research proposals that involve minors or vulnerable or "at risk" subjects. • Subjects may be exposed to some risk.

APPENDIX K: Grant Writing Resources

Browning, Beverly A. 2001. *Grant Writing for Dummies*. Wiley Publishing Inc., Indianapolis, Indiana.

Locke, L.F., Spirduso, W.W, and Silverman, S.J. 2000. *Proposals That Work: A Guide for Planning Dissertations and Grant Proposals*. Sage Publications Inc., California, USA.

Ogden, Thomas E. and Goldberg, Israel A. 2002. *Research Proposals: A Guide to Success, Third Edition*. Elsevier Science Imprint, Academic Press, California, USA.

Levine, S. Joseph. A Guide for Writing a Funding Proposal at http://www.learnerassociates.net/proposal/

Foundation Center. Proposal Writing Short Course at http://fdncenter.org/learn/shortcourse/prop1.html

National Science Foundation. Guide for Proposal Writing at https://www.nsf.gov/pubs/policydocs/grantsgovguide0118.pdf

APPENDIX L: Example of Biographical Sketch

Name
Contact Information *(Optional; do not include personal information)*

a. Professional Preparation
(Enter undergrad & grad education & postdoc training in order & format listed below)

Undergraduate Institution	Major	B.S., Year
Graduate Institution	Major	M.S., Year
Graduate Institution	Major	Ph.D., Year
Postdoctoral Institution(s)	Area	Year(s)

b. Appointments
(List academic & professional appointments in reverse chronological order)
YYYY – Position, Department, Institution

c. Products
(Acceptable products must be citable and accessible including but not limited to publications, data sets, software, patents, and copyrights. Unacceptable products are unpublished documents not yet submitted for publication, invited lectures, and additional (more than the five in each category below) lists of products. Publications should be cited in a consistent format, e.g. APA, MLA, CMS, CSE, etc.)

Five products most closely related to proposal project
1. 4.
2. 5.
3.

Five other significant products
1. 4.
2. 5.
3.

d. Synergistic Activities *(List up to five examples that demonstrate the broader impact of your professional and scholarly activities that focus on the integration and transfer of knowledge as well as its creation. Examples could include, but are not limited to: innovations in teaching and training; contributions to the science of learning; development and/or refinement of research tools; computation methodologies and algorithms for problem-solving; development of databases; broadening the participation of groups underrepresented in STEM; and service to the scientific and engineering community outside of the individual's immediate organization.)*
1. 4.
2. 5.
3.