CHAPTER THREE: Proposal Development and Budgeting

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The Office of Sponsored Programs Administration website provides a comprehensive overview of the Proposal Preparation and Submission process. Most often a proposal involves a request for financial support to cover the cost of the project, the purchase of equipment or the payment for services rendered to an outside agency. For the definition of sponsored activities, see Chapter 1, Section 1 or visit the Definition of Sponsored Activities website.

3.1 Preliminary Proposals

Preliminary proposals, also known as pre-proposals, white papers, or letters of intent, may be requested by a sponsor to ascertain interest in a project. Preliminary proposals are abbreviated proposals used by an agency to prescreen applications. These proposals, usually 3-5 pages in length, highlight ideas rather than procedures and may provide for projected composite budgets. The results of prescreening may be binding, where the agency will only review formal proposals that have been invited back; or advisory, where the agency may suggest revisions or discourage resubmission of a formal proposal but not reject it outright. If the preliminary proposal or white paper makes a financial, space, matching, or cost-sharing commitment, the proposal must typically be submitted through the Office of Sponsored Programs Administration, Clinical Contracts Division or the Office of Industry Engagement prior to submission.

A Letter of Intent is a specific type of preliminary proposal. These are frequently requested by agencies prior to submission of a formal proposal. The Letter of Intent allows the agency to get an idea of what is likely to be submitted and plan ahead to secure the resources needed to conduct the review process. This Letter of Intent can be optional or mandatory and usually will not generate any feedback from the agency. For LOIs the documents should be submitted to the appropriate office based on the sponsor and project type. For more information on which office handles your project, please refer to A Guide to Which EVPRI Offices Handle Which Projects.

3.2 Formal Proposals

Formal applications or proposals are documents that are submitted to an external sponsor that outline the components of an investigator-designed work plan. Proposals generally include a request for financial assistance to support the proposed work.
The funding agency may provide financial assistance through several different mechanisms:

- A grant is an award given by a funding agency for a particular purpose without an expectation of repayment. A grant allows a fair amount of creative or intellectual input in the design of a project, but still requires the PI/PD to adhere to a pre-approved budget and project outline.

- A Cooperative Agreement is a funding mechanism that includes an active role for the funding agency and for which there is greater oversight by the sponsor than there would be for a grant.

- A Contract is the most restrictive of the funding mechanisms that a PI/PD will encounter. In a contract, the PI/PD is undertaking a project for the sponsor under program parameters designed by the sponsor. A contract generally has negotiated terms in the award agreement that allow less flexibility on the part of the PI/PD. Industry sponsored contracts need to be reviewed and approved by the Clinical Contracts Division or Office of Industry Engagement.

- A donation/gift is funding provided by a private party, such as a foundation or corporation, for which there are minimal restrictions placed on use of the funds. PIs/PDs should review the Guidelines for Designating Funding as a Gift or a Sponsored Program. Gifts must be processed through the Office of Advancement.

The format of the proposal is likely to be dictated by guidelines of the sponsor and it is the responsibility of the PI/PD submitting the application to read these guidelines and design the program as required by the sponsor. For institutional requirements related to proposal submission please refer to Chapter 4 of the Research Handbook.

### 3.3 Administrative Information

Most proposal applications submitted for extramural funding will request certain administrative information about the University. Tables containing the most commonly requested information (general information, and fringe benefits) can be found on the Sponsored Programs Administration Proposal Preparation and Submission and Common Elements of a Proposal websites.

Most sponsors provide guidelines for proposal preparation and it is recommended that PIs/PDs use any sponsor-provided proposal outlines. Individuals reviewing submissions expect adherence to sponsor guidelines and non-compliance may cause the proposal to be disqualified. The following items are typical components of a standard proposal but requirements vary by sponsor.

### 3.4 Proposal Cover Page

Most sponsors will provide a form or a format to use as a cover page. If a standard format is not provided, the coversheet should contain at a minimum:

1. Proposal title
2. Sponsoring agency and/or Program receiving the grant proposal
3. Applicant legal name, typically University of Louisville Research Foundation, Inc.
4. PI/PD’s name and his/her contact information
5. Date submitted
6. Authorizing Official and a line for signature
7. Contact information for the Authorizing Official

3.5 Abstract or Project Summary

Most sponsors require a summary of approximately 250 to 500 words outlining the proposed scope of work and significance of the project. The abstract should be a good marketing piece for the application, summarizing what need(s) the project meets, its objectives, why the researcher and institution are best suited to achieve the objectives, and why it is critical for the funding to be granted. This section should focus more on the objectives and anticipated outcomes of the project than the methodology. Each specific aim should be briefly addressed to demonstrate its value in the project. While this is usually the first section read, it should be the last section written in order to provide an accurate, thorough and complete overview.

3.6 Project Description or Proposal Narrative

The project description is the detailed narrative outlining the project rationale, the goals and objectives, the methodology, the work plan, and the evaluation criteria. This is likely to be divided into one or more of the sections outlined below.

Introduction

The introduction should effectively market a proposal. It should be written in a way that entices the reviewer to want to read the rest of the proposal. The introduction should be used to set up the argument for funding this project. It should describe the researcher(s), how this proposed program complements the sponsor’s strategy and resources, the accomplishments the PI/PD has in this area, and why he/she is best positioned to address the problem at hand.

Demographic information about the University can be found in Just the Facts published by the Office of Academic Planning and Accountability. Data about resources at the University that pertain to the specific program are generally helpful; however, much too often proposal writers are tempted to simply insert a piece of boilerplate text into the introduction. This does little to gain the interest of the reader and unless it directly pertains to the problem at hand, it takes up valuable space in the narrative.

Example for a K-12 Education Program:

Weak: The University of Louisville recently celebrated its 200th birthday. Located in Kentucky’s largest metropolitan area, the U of L was designated as the state’s urban university when it joined the system in 1970 after many years as a municipally supported institution.
Better: The University of Louisville is a public institution located in Kentucky’s largest metropolitan area where more than 92,000 K-12 students are enrolled in the Jefferson County Public School System. The close partnership between these two entities provides an exceptional educational opportunity for the 2000 students currently enrolled in the U of L School of Education.

Problem or Needs Statement

While the introduction lends credibility to the PI/PD’s ability to address this issue, the needs statement focuses on the problem itself. The idea is to show that the researcher can bridge the gap from the current state to a more desirable outcome. The logical order of this section will move the reader from what the problem is and how it is currently being addressed to how the proposed solution is a better option.

Example:

1. X number of people died from {disease} according to 2014 statistics.
2. Traditional treatments require hospitalization due to extreme side effects.
3. Our new treatment program shows promising results with few side effects and no hospitalization, meaning a higher rate of compliance at a lower cost.

This section should be well referenced and arguments should be based on documented facts, not opinions. Pilot studies supporting your hypothesis should be referred to, but explained in detail in the Methodology section. This needs assessment should set up the basis for the specific aims statement, therefore an effective transition into the next section is necessary.

Specific Aims: Goals and Objectives

The specific aims of a proposed project will describe the successes or outcomes that can be anticipated if the project is funded. The aims must grow out of the needs statement and relate to the method that will be employed to close the gap between the current and ideal state. Goals and objectives should be addressed in this section and an explanation of how the project will contribute to these goals and objectives should be provided.

A goal is normally understood to be a more global target to which the proposed program will contribute, such as curing cancer or achieving world peace. An objective is a more intermediate accomplishment that will contribute to the overall goal. An objective can and should be accomplished during the tenure of a grant while it is unlikely that a goal will be. The objectives should be specific, well defined, measurable and timely. They must clearly explain how they contribute to the overall goals.

Objectives can be either outcome-based or process-based, but care should be used when writing process-based objectives so process and methodology do not become confused.

Example:
Goal: To solve the problems of Public Housing.

Outcome Objective: To create 30 new first time homeowners from public housing residents by the summer of 2024.

Process Objective: To create a training program in home ownership for low income public housing residents.

Methodology

This section will describe how the objectives will be accomplished. It should include what will be done, what resources are necessary, the roles of each individual contributing to the project, and why certain approaches are taken to solving the problem at hand. This section should be structured to show the logical flow of the work, the sequence of activities, and the interrelationship of each of the particular tasks. Milestones and decision points that are planned to show the progress of the project should be included.

A description of the decision to utilize one methodology over another is very effective, especially if using a unique approach. It is also useful to discuss the obstacles that may be encountered as the project proceeds and what alternatives might be necessary to ensure successful completion.

Evaluation

This section should set up the criteria by which the researcher and the funding agency will determine the success of the project. The evaluation should flow out of the criteria described in the objectives section with regard to time, cost, and other measurement indicators. It is sometimes useful to include funding requests for a third party to evaluate the work that will have been accomplished, especially if the outcomes are fairly subjective and hard to measure. If working with a large data set, a statistician should be included on the project team to provide analysis of the success of the project.

Personnel

The responsibilities of all personnel must be delineated clearly in the narrative. If students or postdoctoral fellows are included in the work plan, there must be a clear discussion of their involvement in the research, the training benefits to be derived, if any, and how they will be supervised.

Biographical Sketches

Biographical sketches should be provided for all key personnel and consultants whose role will contribute significantly to the project. Full curriculum vitae are seldom appropriate for this purpose. Sketches should highlight the contributor’s current title, educational background and relevant professional experience. Read the guidelines carefully because the format for
biographical sketches varies from sponsor to sponsor and can be revised by a sponsor such as NIH. Most federal and private foundation guidelines will stipulate the format to be used for the biosketches.

Current and Pending Support

Key personnel may be required to list any active grants or proposals pending at other agencies. Any relative scientific or budgetary overlap between a funded project and the proposed effort should be explained.

This section should also outline the percent of effort committed to each project along with a timeline for each project. Each investigator should be careful to manage his/her time so that he/she is not committing more than 100 percent effort to all job-related activities, including funded research. If the success of the submitted proposal means that the total percentage of effort becomes too high, a statement must be included to describe how the individual will reallocate time and effort to meet all of his/her commitments.

Note: Research proposals to the Biological Sciences Directorate at the National Science Foundation will not be reviewed simultaneously with a proposal pending at any other federal agency. Junior faculty members applying for their first federal grant are exempt from this rule.

Facilities and Equipment

This section will be used to describe any specialized equipment, services or resources available to the PI/PD that are beneficial or necessary to the success of the proposed work. More information on shared scientific resources can be found at the research cores website. If the facility is not part of the University of Louisville property, a letter should be obtained from an administrative authority at that facility that clearly commits the facility to the project. Likewise if the equipment described is not under the direct control of the research team, a letter from the individual responsible for that equipment must be included outlining an agreement and terms for use of the equipment for this project.

Proposal Appendices

If the sponsor permits appendices, this section may include letters of commitment or partnership, relevant publications, or other materials that enhance the proposal. Tables, figures or graphs that are referenced in the narrative should be incorporated into the body of the narrative rather than appended to it. Appendices may not be used to circumvent the stated page limit for the body of the proposal.

3.7 Proposal Budgeting

Budgeting is dictated by sponsor guidelines but broadly there are two types of budgeting: (1) Modular and (2) Detailed.
Modular

More information on modular budgeting can be found at the NIH website for Modular Grants. Although the NIH does not require detail, the Office of Sponsored Programs Administration – Grants Division will require enough detail to assure accuracy of the budget and unit commitments to appropriately budget by cost pool categories in the PeopleSoft Financial System.

Detailed

The PI/PD should show all necessary costs and resources of the project in the budget, even those covered as cost sharing, so that there is an accurate accounting of the actual total cost of the project. When requesting funding for any line item in the project budget, it is imperative that the PI/PD show how the cost of that item is necessary to complete the proposed project. Each item in the budget should tie back to the project to substantiate the request for funding.

Allowable Costs

Any requests for support from a federal agency must be in compliance with requirements outlined by 2 CFR 200. Sponsor guidelines published for a specific program announcement may be more restrictive than the 2 CFR 200 guidelines and will take precedence. Costs reimbursed under the Facilities and Administrative costs (indirect costs) agreement will not normally be allowable as direct costs on a proposal budget to a federal agency.

Example: Postage is not normally an allowable cost on a sponsored project. A project requires a 5-page survey to be mailed to a targeted audience of 1000 people; estimated cost to mail each survey is 50 cents. The PI/PD can request $0.50 x 1000 = $500 in postage specifically for the survey. Additional funding cannot be requested to cover routine office mailings.

Requests for support from non-federal sponsors must be consistent with the sponsor’s guidelines on allowable and reasonable costs, as well as any University policies that may apply to that circumstance.

For more information on cost allowability, please refer to Chapter 6, Section 1 of the Research Handbook or 2 CFR 200.

Budget Categories

This section will examine the various categories of funding which a proposal is likely to request and will provide details on the calculations and restrictions in each category.

Salaries

The Salary and Wage section of most proposals will request a listing of the persons working on the project, their roles, the estimated time committed to the project, and the amount of salary to
be charged to the project. Salary calculations should reflect the total percentage effort of each member of the project team, whether or not the money is being recovered from the funding agency, with the balance being shown as University cost share. **University voluntary cost sharing is discouraged.**

Factors that should be considered in salary and wage calculations include:

- If the award is expected to be made in a budget year different from the application year, salary requests should be adjusted to show the anticipated increase in institutional base salaries. Keep in mind the amount of time needed for proposal review;

- Salary escalation factors for subsequent funding years should be calculated using a 2-5 percent escalation factor;

- If a promotion is expected to occur during the project period, the anticipated salary adjustment should be reflected in the proposal budget and an explanation should be provided in the budget justification;

- 10 percent effort is roughly equivalent to one half day per week;

- Salaries for unfilled classified or Professional and Administrative (P&A) positions may be estimated at midpoint of the salary range for that pay grade;

- If time commitments on the grant require a member of the research team to be released from other responsibilities, the immediate supervisor should approve the change of assignment.

- The salary amount that is used for budgeting purposes in the proposal is the total university compensation as defined by the **Institutional Base Salary Policy.**

**Example A:**

A faculty member with a twelve-month appointment earns $65,000/year plus a salary supplement of $6,500 associated with being appointed a University Scholar. He/She anticipates spending 30% of his/her time on this project, which is scheduled to begin in the next fiscal year from now.

1. Institutional Base Salary at the time of the award will be $71,500 + a 3 percent raise or $73,645: $71,500 x 1.03 = $73,645 (Salary increases should be calculated for each new fiscal year throughout the project period. Fiscal year begins in July.)
2. Multiply the estimated Institutional Base Salary by the percentage effort: $74,360 x 0.30 = $22,308

**Example B:**
A faculty member on a B-9 appointment will be earning $45,000/year at the time of the award. He/She anticipates spending two months of the summer plus 20 percent of his/her time during the academic year on this project. (Sponsors generally expect that some time will be taken for vacation during the summer.)

1. Summer salary can be calculated as $(45,000/9) \times 2 = $10,000
2. Academic year salary would still be $(45,000 \times 0.2) = $9,000
3. Salary request = $10,000 + $9,000 = $19,000

Note: The National Science Foundation calculates summer salary based on 2/9 of the academic year base.

Note: The National Institutes of Health issues a salary cap. Remember this when applying the effort percentage to the base salary for inclusion in the grant budget.

Example: Professor A earns $250,000 salary, including a Distinguished University Supplement, and the percent effort on the grant totals 25 percent. The grant budget amount should include 25 percent of the NIH salary cap NOT $250,000. The $250,000 salary is still indicated in the budget as the total institutional salary.

Professor B is earning $90,000 salary and the percent effort is 25 percent. The grant budget amount should include 25 percent of $90,000.

Student Salaries

A salary is paid to students for work or service conducted for the University outside of any educational responsibilities. If a Graduate Assistant is included on a grant the salary must be in alignment with committed effort.

Minimum salary/stipend levels for graduate assistantships are established by the Graduate School Dean’s Office. Faculty adding graduate or undergraduate students to their research programs should contact the unit business manager or designee in their home department to determine the correct rate of pay.

NOTE: Graduate students funded under a grant or contract must be provided student health insurance and tuition. Please refer to the Office of Planning and Budget’s Policy on Tuition Remission for Graduate Research Assistants Funded from Grants and Contracts for more information.

Administrative and Clerical Salaries

Please see Chapter 6, Section 6.1 of the Research Handbook for guidance on the inclusion of Administrative and Clerical Salaries in proposal budgets.
Fringe Benefits

Fringe benefits are those items that an employee of the University receives over and above salary. This category includes costs such as the University’s contribution to Social Security, to retirement funds, to health insurance, long-term disability and life insurance and the Medicare tax. For the purpose of the proposal, fringe benefits may be calculated on a weighted average as a percentage of salary (see Recommended Fringe Benefit Rates). However, using the actual fringe benefit rate is strongly recommended and will be charged to the project. The actual rates may vary from the average rate depending on a person’s salary and benefits package.

Equipment

Equipment, as defined in 2 CFR 200, refers to any single tangible item costing $5,000 or greater with a useful life of greater than one year. Costs necessary for delivery and installation may be included to reach the $5,000 threshold only if they are part of the terms and conditions of purchase. If an item fails to meet either of these standards, it should be listed under the budget category for “materials and supplies.”

Note: Applications to sponsors outside the federal government may have lower thresholds for equipment classifications.

The following are some other important items pertaining to equipment:

- Software is only classified as equipment when it is operating software necessary for the performance of the equipment in question. Application software is never classified as equipment.

- Equipment is rarely included in the Modified Total Direct Cost base for the purpose of F&A calculation.

Equipment requests should document the necessity of the equipment to the successful completion of the project. Where possible, manufacturer’s price quotes should be used to document the cost basis for the particular piece of equipment; however the PI/PD should be aware of the bidding requirement for actual purchase of larger equipment items.

Expendable Materials and Supplies

Items included in this budget category generally refer to consumables and small equipment with a value of less than $5,000. In most circumstances, federal regulations prohibit inclusion of general office supplies in a grant or contract budget. It is important to note that a sponsor’s approval of a proposal does not guarantee allowability of the proposed costs.

Tuition

Tuition is an allowable direct charge for students involved on sponsored projects and should be
budgeted based upon committed effort. Tuition is never included in the Modified Direct Total Cost base for F&A calculations.

**Consultants**

Typically consultants are personnel from outside the University whose expertise is needed on a project for a fixed period or for a specific activity. Hiring a consultant usually entails a personal services contract. The department is expected to follow University policies and procedures for processing personal services contracts.

Consultants should be identified by name in the proposal. The budget justification should discuss his/her area of expertise and the necessity of including him/her on the project. The fee basis should be detailed and any reimbursable expenses including travel should be outlined separately.

Additional information on the allowability of consultant or professional service costs is available in 2 CFR 200.459. See Chapter 7, Section 2 of the Research Handbook for additional information on consultants.

**Subawards**

The need for a sub-recipient should be identified at time of proposal. Subawards are appropriate when:

1) A third party is identified in the original proposal to conduct a significant portion of the scope of work; and

2) The work of the Subrecipient is substantive and independent; the Subrecipient makes programmatic decisions and its performance is tied to the objectives of the project.

The sub-recipient must provide a complete budget including their F&A costs. Total costs for the sub-recipient will be entered into the proposal budget as direct costs to which UofL’s negotiated F&A rate will be applied as appropriate.

**Travel**

Travel can be requested within a proposal budget when the travel provides direct benefit to the project. For example, participation in a meeting or conference must be necessary to accomplish proposal objectives or disseminate results. Additional information can be found in 2 CFR 200.474. All travel is subject to University Travel Policies.

**Other Direct Costs**

Other costs may include but are not limited to service charges for patient care, statistical evaluation, survey research, repair or maintenance of equipment, rental or adaptation of space, or
publication costs. If the request involves renovation of existing space, approval by the appropriate University officials is required prior to proposal submission.

**Facilities and Administrative Costs (F&A)**

Facilities and Administrative costs are often referred to as indirect or overhead costs and are defined in 2 CFR 200.56. F&A costs are real costs that the University incurs in supporting sponsored research. F&A should be applied according to the University’s federally negotiated rate agreement. Detailed information can be found on the Research and Innovation F&A webpage and in the F&A rate agreement.

**Cost Sharing and Matching Costs**

Cost sharing or matching means the portion of project costs not paid by sponsor funds. In such instances additional funding must be obtained from University funds or from a party external to the University (third-party). Under federal research proposals voluntary committed cost sharing is not expected. It cannot be used as a factor during the merit review of proposals but may be considered if it is both in accordance with federal awarding agency regulations and specified in notice of funding opportunity. It is generally not appropriate to cost share on industry sponsored projects.

The following describes the different classifications of cost sharing:

1. **Mandatory Committed Cost Sharing**: The portion of project costs that the sponsor requires the Institution to provide in support of the project.

2. **Voluntary Committed Cost Sharing**: The portion of project costs that are committed and budgeted in excess of mandatory sponsor requirements. Voluntary committed cost sharing is strongly discouraged.

3. **Voluntary Uncommitted Cost Sharing**: The portion of total project costs in excess of sponsor funding that is incurred by the institution but not required by the sponsor nor specifically committed in the proposal budget or budget justification. Voluntary uncommitted cost sharing is not budgeted or tracked and should not be considered as a component of organized research. Voluntary uncommitted cost sharing is strongly discouraged.

Cost sharing expenses must be allowable, allocable, reasonable and necessary as described in 2 CFR 200. These expenditures must be treated consistently and must be verifiable through documentation.

Cost sharing or matching costs can be met by grants or commitments from outside the University, such as those from industry partners. However, funds originating from federal sources cannot be used to cover cost share requirements.

**Budget Justification**
The budget justification is an additional narrative section of a proposal that may be required. It is a breakdown of your proposed budget in a narrative format, and is used to “justify” the expenses identified as being necessary for the project.

Please see Chapter 6, Section 6.1 of the Research Handbook for guidance on the inclusion of Administrative and Clerical Salaries in proposal budget justifications.

3.8 Other Proposal Considerations

Material Transfer Agreements

A Material Transfer Agreement (MTA) is required when the University accepts a proprietary substance or product from an outside agency for use or testing. If the outside entity is a signatory of the Uniform Biological Materials Transfer Agreement (UBMTA) or can accept the terms of the UBMTA, this will speed the process. When submitting an MTA for processing, include the name, address, and contact information (e-mail address, phone number, fax number) of the appropriate person at the outside entity should any issues requiring negotiation be present in the agreement. Please refer to the Office of Technology Transfer for assistance with MTAs.

Non-Disclosure Agreement

Non-Disclosure Agreements (NDAs) document the transfer or exchange of confidential or proprietary information. An NDA’s terms protect the scope of the disclosure and how the information may be used, cover how and to whom information may be disclosed, and establish the time periods during which disclosure may occur and disclosures continue to be protected. As with Material Transfer Agreements (MTAs), some terms may require negotiation in order to be acceptable to the university. It may be in your interest to put an NDA in place when licensing, commercialization, or sponsored research opportunities arise. Please refer to the Office of Technology Transfer for assistance with NDAs.

Data Sharing Agreements

A data-sharing agreement is a formal contract that clearly documents what data are being shared and how the data can be used. Such an agreement serves two purposes. First, it protects the entity providing the data, ensuring that the data will not be misused. Second, it prevents miscommunication on the part of the provider of the data and the party receiving the data by making certain that any questions about data use are discussed. Before any data are shared, both the provider and receiver should talk in person or on the phone to discuss data-sharing and data-use issues and come to a collaborative understanding that will then be documented in a data-sharing agreement. For more information, please contact the Office of Sponsored Programs Administration.

Memo of Understanding
A Memorandum of Understanding (MOU) is a non-binding document that acts as a public declaration of partnership, and is often useful in support of joint grant applications to external funding agencies, facilitating visa and travel document processing, and collaborative activities that involve an institutional presence of some kind. For more information, please contact the Office of Sponsored Programs Administration.

Letters of Support

Support letters within the context of a grant application can be used to convey more than just an endorsement of the proposal. In general, these are portions of the proposal that often have no page restrictions and can actually reinforce attributes of the proposed work, team of investigators, mentorship and institutional resources/leadership. If you plan to include multiple letters of support with your proposal, it is recommended that you consider a different strong point to highlight for each letter. Very often, particularly for large proposals, a template can serve as a useful guide for letter writing. However, it is strongly recommended that each letter be customized to the specific proposal and letter signatory or it will defeat the purpose of providing such letters in the first place. For assistance please contact the Office of Sponsored Programs Administration - Development Division.

04/14/2016