

Preparing a Budget for a Research Grant Proposal

Office of Sponsored Projects
Faculty Education Working Group
<http://www.dartmouth.edu/~osp>

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SOLICITATIONS

The first step in the process of submitting a proposal is to identify a solicitation. There are various names for research funding solicitations. A few of the most common are: Research Funding Announcements (RFAs), Request for Proposals (RFPs), Proposal Announcements (PAs), and Funding Opportunity Announcements (FOAs); however, others exist. Many opportunities can be found using the Office of Sponsored Projects website under [Funding Opportunities](#).

Once the solicitation has been selected and deemed appropriate for the PI and his/her particular research project, the budget process can be started. It is vital to read the solicitation in its entirety before starting. The solicitation will give guidelines for the funding proposal and will state any budgetary restrictions. The budget template is often provided as well. It is critical to determine whether there are any limitations in direct or indirect costs. PI salary, equipment and animal purchases are common direct cost expenses with restrictions. Often, indirect cost limits are applied. Additionally, there are frequently total allowable funding limits, and cost share requirements, all of which must first be taken into consideration.

Solicitations will also state whether the budget is flexible. If the budget is restricted as proposed it is absolutely imperative that the budget be as accurate as possible. As a budget is being developed for a research grant application and all of the relevant costs are put down on paper, many questions may arise. The best resources for answering these questions are the Office of Sponsored Projects (OSP), Research Grant Managers (RGMs) or Department Research Administrators (DRAs), and peers. The appropriate RGM or DRA can be found by contacting OSP.

Lastly, if a program has a **limited submission requirement** please follow the procedures under [Limited Submission Funding Opportunities](#).

THE PURPOSE & IMPORTANCE OF A BUDGET

A budget is a key element of most grant proposals and serves as a blueprint for spending the project's funds. An effective proposal budget outlines the proposed project in fiscal terms and helps reviewers to determine how the project will be conducted. Budget information about activities planned and personnel who will serve on the project provides reviewers with an in-depth picture of how the project will be structured and managed. Budget details usually reveal whether a proposed project has been carefully planned and may ultimately be **feasible**.

The proposed budget must give an accurate assessment of all cost items and cost amounts that are deemed necessary and reasonable. It should be **complete**; that is, it should include all the costs of any personnel, supplies, and activities required by the project. The project needs to be feasible within the budget presented. If major cost areas are omitted or underestimated, the project, as proposed, will not be considered feasible.

Over the course of the project many different stakeholders are going to review the budget, and refer back to it. The decisions made now at the proposal stage will continue through the life of the grant, and others will make decisions based on it at future stages (see Budget Life Cycle on the following page); therefore, it is time well spent to prepare a **reasonable** budget. A reasonable budget is one that is based upon actual costs when possible.

The budget will become an integral part of the obligation to the sponsor, particularly regarding time/effort commitments. It will evolve into a useful **management tool** during negotiations, and, if the project is funded, the budget will become the financial plan used by the funding agency to provide support. When variances between the budget and actual expenses are indicative of a change in scope, this may require sponsor approval.

Often required with the budget is a narrative justifying budgeted items. This budget justification will vary depending on the sponsor's budget format.

BUDGET LIFE CYCLE

LIFE CYCLE OF THE PROJECT BUDGET

STAGE	STAKEHOLDER	CONCERN
PREAWARD	PI	How much will it cost to do this project?
	Departmental/Divisional Review	Are there cost sharing obligations?
	OSP	Does the budget and justification meet sponsor and institutional requirements?
	Peer Review	Is the budget reasonable for the scope of the work proposed?
AWARD	Program Officer	Are there funds available to make this award? Can we fund this award at a lower level?
	PI	They cut my budget (!); do I need to reduce the scope of the project? Even if there are no cuts, are there changes that need to be made? Are there commitment overlap issues?
POSTAWARD		Are costs compliant with sponsor terms and the scope of the project?
	PI	Can I afford this?
	Program Officer	Are effort commitments being met?
	OSP Grant Manager	Is there a significant change in effort? Is there carryover and is it justified on the annual report?
		Are there budget variances that indicate a change of scope which requires sponsor approval?
CLOSE OUT	Cash Management Office	Do the costs match the approved budget on the Financial Status Report?

BUDGET CATEGORIES

Cost Groups

Most budgets are composed of two kinds of costs: direct costs and indirect costs.

Direct costs are costs that can be identified specifically with a particular sponsored project, an instructional or institutional activity, or one that can be directly assigned to such activities relatively easily with a high degree of accuracy. These costs include expenditures for project personnel salaries and employee benefits, supplies, travel, equipment, telephones, and postage. All direct cost items must be included in the budget.

It is important to ensure that all costs meet the criteria, of **allowable, allocable, and reasonable** as defined by the Federal Cost Principles (OMB Circular A-21).

Indirect costs are incurred by a grantee that cannot be identified specifically with a particular project or program. They include the costs of many services the college provides (procurement, administrative, library, OSP, Technology Transfer Office (TTO), custodial, accounting/finance, and security) as well as building maintenance and depreciation, and utilities. These costs are often referred to as the “cost of doing business”, business overhead, or Facilities and Administrative Costs (F&A).

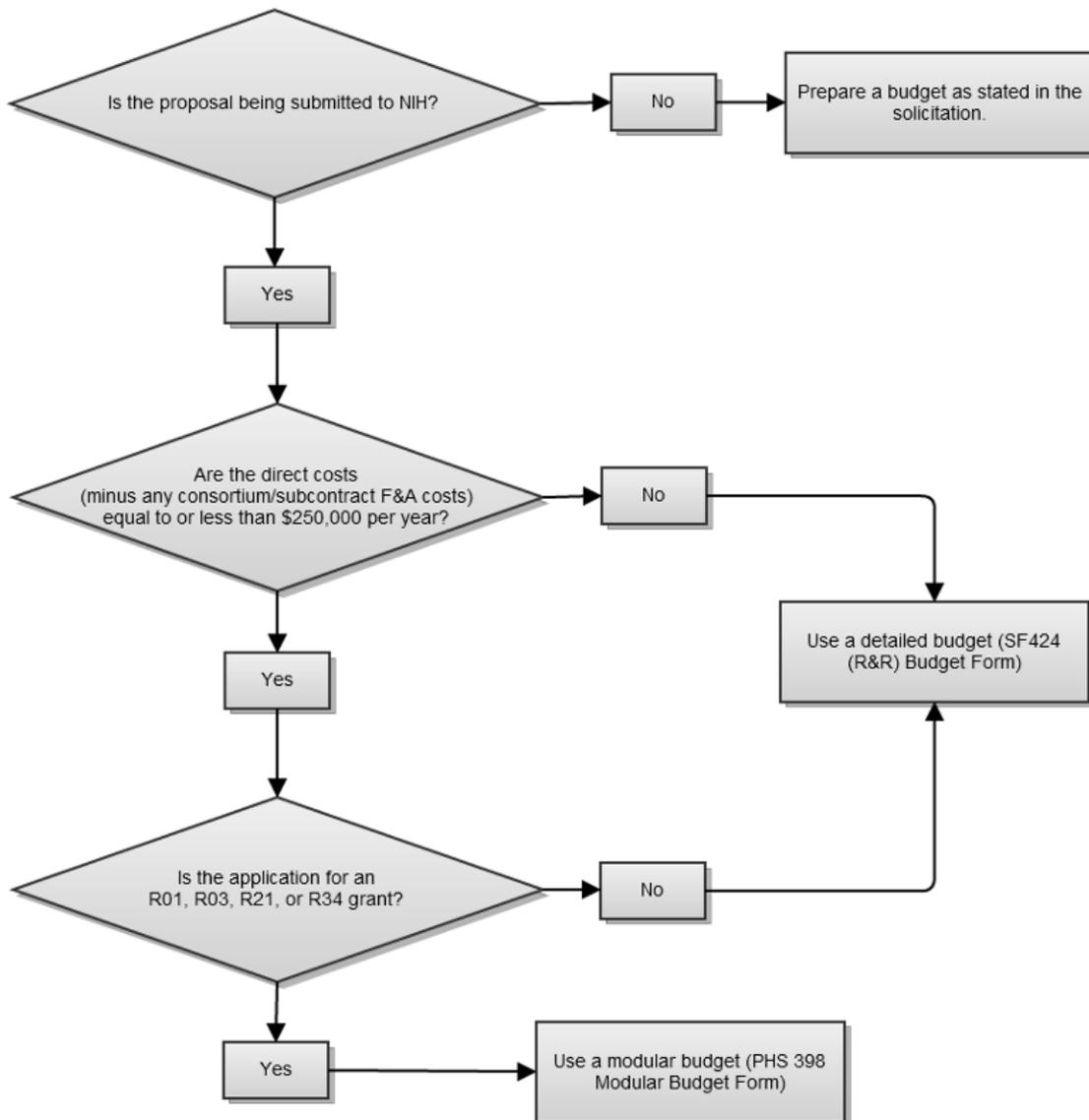
In accordance with Dartmouth’s negotiated agreement with the Department of Health and Human Services, the following predetermined F&A rates should be used: <http://www.dartmouth.edu/~osp/resources/profile-fa.html> .

BUDGET TYPES

There are different budget types and the solicitation should be reviewed to determine which format is required for a particular funding opportunity.

NIH offers two different formats for budget submissions, either Modular or Detailed, depending on the total direct costs requested and the activity code used (R01, R03, R21, R34, K01, T32, F32, U01, P30, etc.).

To determine what budget format to use, see the flowchart below.



NIH Modular Budgets

Modular budgets are simplified; therefore, detailed categorical information is not to be submitted with the application. If using a modular budget format applicants request funds in lump sums of \$25,000 modules. In order to determine how many modules to request, subtract any consortium F&A from the total direct costs, and then round to the nearest \$25,000.

Consider creating a detailed budget for future use; include salaries, equipment, supplies, graduate student tuition, etc. for every year of funds requested. While the NIH will not ask for these details, they are important to have on hand when calculating the F&A costs base, writing the justification, managing funds, and for audit purposes.

A modular budget justification should include:

- *Personnel Justification:* The Personnel Justification should include the name, role, and number of person-months devoted to the project for every person on the project. Do not include salary figures but keep in mind the legislatively mandated [salary cap](#) when calculating the budget and estimating the number of modules to request. Include a paragraph briefly providing the current and projected fringe benefits rates, F&A rates and annual inflation rate.
- *Consortium Justification:* If there is a consortium/subcontract for the project, include the total costs (direct costs plus F&A costs), rounded to the nearest \$1,000, for each consortium/subcontract. Additionally, any personnel should include their roles and person months; if the consortium is foreign, that should be stated as well.
- *Additional Narrative Justification:* Additional justification should include explanations for any variations in the number of modules requested annually. Also, this section would describe any direct costs that were excluded from the total direct costs to calculate the F&A base (such as equipment or tuition remission) and any work being conducted off-site, especially if it involves a foreign study site or an off-site F&A rate.

NIH Detailed Budgets

NIH requires a detailed budget for proposals greater than \$250,000 per year in direct costs. Other federal agencies require a detailed budget for all proposals. Line item detail is provided on the Research and Related Budget Form (R&R) on the SF424 form. Other non-federal proposals would not use the SF424 (R&R) form.

Following are samples of the SF424 (R&R) detailed budget forms, items to include and justification guidelines.

Personnel (Sections A & B)

All personnel from the applicant organization dedicating effort to the project should be listed on the personnel budget with their base salary and effort, even if they are not requesting salary support. It is expected that the PI must commit minimum effort.

- *Effort:* Effort must be reported in person months. For help converting percent effort to person months, see: http://grants.nih.gov/grants/policy/person_months_faqs.htm.
- *Salary Caps:* NIH will not pay requested salary above the annual salary cap, which can be found at http://grants.nih.gov/grants/policy/salcap_summary.htm.
- *Fringe Benefits:* The fringe benefits rate is based on institutional policy; Dartmouth's rates can be found at <http://www.dartmouth.edu/~osp/resources/profile-fbrates.html>
- *Senior/Key Personnel:* (Section A) The Senior/Key Personnel section should include any senior or key personnel *from the applicants organization* who are dedicating effort to this project.

Definition of Key Personnel: "Key personnel are defined as all individuals who contribute in a substantive way to the scientific development or execution of the project, whether or not salaries are requested. Typically, these individuals have doctoral or other professional degrees, although individuals at the masters or baccalaureate level should be included if their involvement meets the definition of key personnel."

- *Post-Doctoral Students:* Can be listed as Key Personnel if they fit the definition above.
- *Graduate Students:* Graduate students can be listed in either section A or B, but if listed in section B, include the individuals' names and level of effort in the budget justification section.
- *Other Personnel:* (Section B) Other personnel can be listed by project role. If multiple people share the same role such as "lab technician", indicate the number of personnel to the left of the role description, add their person months together, and add their requested salaries together. The salaries of secretarial/clerical staff should normally be treated as F&A costs. Direct charging of these costs may be appropriate where a major project or activity explicitly budgets for administrative or clerical services and individuals involved can be specifically identified with the project or activity.

Equipment, Travel, and Trainee Costs (Sections C, D, and E)

- *Equipment:* Equipment is defined as an item of property that has an acquisition cost of \$5,000 or more.
- *Travel:* Travel should be included only for individuals within the applicant's institution. The budget justification should include the destination, number of people traveling and dates or duration of your stay for all anticipated travel. You should refer to the institutional travel policy for guidance on how you should arrange the travel, but it is expected that you will follow the U.S. federal government policy found here: <http://www.gsa.gov/federaltravelregulation>.
- *Trainee Costs:* Leave this section blank unless otherwise stated in the FOA.

RESEARCH & RELATED BUDGET - SECTION C, D, & E, BUDGET PERIOD 1

* ORGANIZATIONAL DUNS:

* Budget Type: Project Subaward/Consortium

Enter name of Organization:

* Start Date: * End Date: Budget Period 1

C. Equipment Description

List items and dollar amount for each item exceeding \$5,000

	Equipment item	* Funds Requested (\$)
1.	<input type="text"/>	<input type="text"/>
2.	<input type="text"/>	<input type="text"/>
3.	<input type="text"/>	<input type="text"/>
4.	<input type="text"/>	<input type="text"/>
5.	<input type="text"/>	<input type="text"/>
6.	<input type="text"/>	<input type="text"/>
7.	<input type="text"/>	<input type="text"/>
8.	<input type="text"/>	<input type="text"/>
9.	<input type="text"/>	<input type="text"/>
10.	<input type="text"/>	<input type="text"/>
11.	Total funds requested for all equipment listed in the attached file	
	Total Equipment	<input type="text"/>

Additional Equipment:

D. Travel

	Funds Requested (\$)
1. Domestic Travel Costs (Incl. Canada, Mexico and U.S. Possessions)	<input type="text"/>
2. Foreign Travel Costs	<input type="text"/>
Total Travel Cost	<input type="text"/>

E. Participant/Trainee Support Costs

	Funds Requested (\$)
1. Tuition/Fees/Health Insurance	<input type="text"/>
2. Stipends	<input type="text"/>
3. Travel	<input type="text"/>
4. Subsistence	<input type="text"/>
5. Other <input type="text"/>	<input type="text"/>
<input type="text"/> Number of Participants/Trainees	Total Participant/Trainee Support Costs <input type="text"/>

Other Direct Costs (Section F), Sections G & H

Section F

- *Materials and Supplies:* In the budget justification, indicate general categories such as glassware, chemicals, animal costs, including an amount for each category. Categories that include costs less than \$1,000 do not have to be itemized.
 - *Animal Costs:* While included under “materials and supplies”, it is often helpful to include more specific details about how you developed your estimate for animal costs. Include the number of animals you expect to use, the purchase price for the animals (if you need to purchase any), and your animal facility’s per diem care rate found on the [Animal Care and Use Program](#) website.
- *Publication Costs:* You may include the costs associated with helping you disseminate your research findings from the proposed research.
- *Consultant Services:* Consultants differ from Consortiums in that they may provide advice, but should not be making decisions for the direction of the research.
- *ADP/Computer Services:* The services you include here should be research specific computer services- such as reserving computing time on supercomputers or getting specialized software to help run your statistics.
- *Consortiums:* If you are using the detailed budget format, each consortium you include must have an independent budget form filled out.

Direct costs:

- *In the rare case of third tier subawards, section F.5* “subawards/consortium/contractual” costs should include the total cost of the subaward, and the entire third tier award is considered part of the direct costs of the consortium for the purposes of calculating the primary applicant’s direct costs.
- *Cost Principles.* Regardless of what cost principles apply to the parent grantee, the consortium is held to the standards of their respective set of cost principles.

F&A:

- Consortium F&A costs are NOT included as part of the direct cost base when determining whether the application can use the modular format (direct costs < \$250,000 per year), or determining whether prior approval is needed to submit an application (direct costs \$500,000 or more for any year).
- F&A costs for the first \$25,000 of each consortium may be included in the modified total direct cost base, when calculating

the overall F&A rate, as long as your institution's negotiated F&A rate agreement does not expressly prohibit it.

- If the consortium is a foreign institution or international organization, F&A for the consortium is limited to 8%.

Justification:

- Consortia should each provide a budget justification following their detailed budget. The justification should be separate from the primary grantee's justification and address just those items that pertain to the consortium.
- *Equipment or Facility Rental/User Fees:* On rare occasions a rental fee may be necessary for the use of additional equipment or space not available at the institution.
- *Alterations and Renovations (A&R):* A&R does not include general maintenance projects (normally part of the F&A) or projects exceeding \$500,000 (considered "construction" projects).
- *Other:* Some types of costs, such as entertainment costs, are not allowed under federal grants. NIH has included a list of the most common questionable items in the NIH Grants Policy Statement (http://grants.nih.gov/grants/policy/nihgps_2011/nihgps_ch7.htm#selected_cost_items).

Section G: Direct Costs

Total direct costs are calculated automatically.

Section H: Indirect Costs

Calculated on the modified total direct costs (MTDC).

MTDC = Modified Total Direct Costs: Total direct costs excluding capital expenditures (buildings, individual items of equipment over \$5,000, alterations and renovations), that portion of each subaward in excess of \$25,000, patient care, rental/maintenance of off-site activities, tuition remission, scholarships and fellowships.

Close Form

RESEARCH & RELATED BUDGET - SECTION F-K, BUDGET PERIOD 1

* ORGANIZATIONAL DUNS:

* Budget Type: Project Subaward/Consortium

Enter name of Organization:

* Start Date: * End Date: Budget Period 1

F. Other Direct Costs		Funds Requested (\$)
1. Materials and Supplies	<input type="text"/>	<input type="text"/>
2. Publication Costs	<input type="text"/>	<input type="text"/>
3. Consultant Services	<input type="text"/>	<input type="text"/>
4. ADP/Computer Services	<input type="text"/>	<input type="text"/>
5. Subawards/Consortium/Contractual Costs	<input type="text"/>	<input type="text"/>
6. Equipment or Facility Rental/User Fees	<input type="text"/>	<input type="text"/>
7. Alterations and Renovations	<input type="text"/>	<input type="text"/>
8. <input type="text"/>	<input type="text"/>	<input type="text"/>
9. <input type="text"/>	<input type="text"/>	<input type="text"/>
10. <input type="text"/>	<input type="text"/>	<input type="text"/>
Total Other Direct Costs		<input type="text"/>

G. Direct Costs	Funds Requested (\$)
Total Direct Costs (A thru F)	<input type="text"/>

H. Indirect Costs			
Indirect Cost Type	Indirect Cost Rate (%)	Indirect Cost Base (\$)	* Funds Requested (\$)
1. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total Indirect Costs			<input type="text"/>

Cognizant Federal Agency
(Agency Name, POC Name, and POC Phone Number)

I. Total Direct and Indirect Costs	Funds Requested (\$)
Total Direct and Indirect Institutional Costs (G + H)	<input type="text"/>