



Office of Research Development and Education

UNIVERSITY OF COLORADO
DENVER | ANSCHUTZ MEDICAL CAMPUS

Tips for Creation of a Budget Justification

Every proposal budget needs to have a detailed justification, a document that allows you to thoroughly explain proposed expenditures to grant reviewers and agency personnel. This Quick Guide offers tips in preparing a general budget justification. **Please see agency guidelines for specific requirements.**

Your budget justification should:

- follow sponsor solicitation/announcement instructions
- mirror the sponsor's detailed budget page headings
- give additional details about items summarized on the budget page
- explain why each of the items on the budget page is needed to accomplish the proposed research
- make it clear that all budget requests are reasonable and consistent with sponsor and UCD policies

Personnel Costs

Only University of Colorado Denver employees should be listed under Personnel. If the person who will perform the work is a current UCD employee, list his or her name, title, the amount of time he or she will spend working on the project, and what he or she will be trying to accomplish. Note that employees at other University of Colorado institutions should be treated as subcontractors.

Avoid saying anything like "Person X will work Y amount of time at no cost to the sponsor" because that is considered cost sharing which must be tracked and reported to the sponsor.

See the UCD Cost Sharing Policy for more information

<http://www.ucdenver.edu/academics/research/AboutUs/GrantsContractsOffice/policies-procedures/Pages/default.aspx>.

Senior Personnel

This category should include anyone who is a PI, Co-PI, Co-I, or Project Director (see sponsor documentation for specific definition of who should be included in this category.)

Principal Investigator

If NO salary is requested, be careful not to quantify the amount of time and effort the PI will spend because this would be cost sharing. Sample phrases are listed on the next page:

Professor X will oversee all aspects of the project.

The PI, Dr. X (UCD Job Title), will provide direction and supervision for the project including [add specific research responsibilities here].

If salary IS requested, see sample phrase below:

Dr. X (Principal Investigator) will provide direction and supervision for the project [including...]. Salary support is requested for 2 summer months for years 1 through 5 of the project. One summer month represents 1/9th of the PI's academic year salary. In the case of a 12-month appointment, Salary support is requested for 2.5 person months for years 1 through 5 of the project.

Other Personnel

Common job titles budgeted in this category include: Postdoctoral Associates, Research Associates, Graduate Research Assistants, Undergraduate Research Assistants and Professionals (e.g., technicians, program managers, data analysts). Depending on agency requirements, list personnel by name, appointment title, percentage of effort and what they'll be doing.

Examples:

Professionals:

We request 6 person months (50%) of support for Dr. Wendy Westminster, Project Manager, who will develop work plans and monitor the daily progress of the project.

We request 7.2 person months (60%) support throughout the project for Dr. Anna Arvada, Professional Psychometrician, who will design tests and carry out advanced data analyses of test and survey results.

Research Associate:

Dr. Gwen Golden, Research Associate Testing Coordinator, will oversee recruitment of High School teachers and coordinate the administration of student tests and surveys. Her effort is calculated at 9 person months (75%) for years one through three of the project.

Postdoctoral Associate:

Dr. Dean Denver, Education Specialist, will contribute to the development of the survey questions and interpretation of test and survey results. His effort is estimated at 2.4 person months (20%) throughout the project.

Graduate Research Assistant:

Mr. Larry Littleton, Graduate Research Assistant, will write code for the teacher online survey and maintain the survey database. His effort is estimated at 20 hours per week throughout the project and his rate of pay will be \$10 per hour. [Note that rate of pay is set at school, college or departmental levels.]

Undergraduate Research Assistant:

Undergraduate Research Assistant to be hired will work 15 hours per week during the academic year and 35 hours per week in the summer months logging, scanning, and compiling all test forms. The hourly rate will start at \$8. [Note that rate of pay is set at school, college or departmental levels.]

Fringe Benefit Rates

Use the current UCD fringe rates for the types of personnel in your proposal. These rates are located on the OGC website at <http://www.ucdenver.edu/academics/research/AboutUs/GrantsContractsOffice/award-administration/preaward/Pages/FringeBenefitRates.aspx>.

Equipment

The UCD Facilities and Administrative Costs Rate defines Equipment as tangible nonexpendable personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.” Note that some agencies define the concept of equipment differently; see agency announcement and/or guidelines.

An equipment purchase can be a multiple-purchase “system,” made up of several items with a per unit cost of less than \$5,000 that must interact with each other, and when added up, total \$5,000 or more.

Facilities & Administrative (F&A) Costs are not applied to equipment.

Equipment Example: We plan to purchase a hybridization incubator (SciGen Model 400) for \$5,600 to insure temperature uniformity in our experimental work.

“System” Example: We plan to purchase additional computer nodes (CPUs) for Beowulf cluster HYDRA during Years 2 and 3. These are AMD Opteron units at a cost of \$3,000 each (plus shipping), and are needed for the intensive computing we plan to do.

All equipment purchased on federal funds must be pre-approved by the sponsor; equipment not requested in the original budget will have to be requested later and the budget will need to be revised.

Travel

Whenever possible, list who, what, when, where and why. The more information the reviewer and agency personnel have about your travel intentions and how they are related to the project, the more likely they will be funded. Be as specific as possible.

Airfare must be coach class, and, if paid by a federal grant, booked on a US carrier whenever possible.

Specific information can be found on UCD’s travel website at <https://www.cu.edu/psc/payables/travel.htm>.

Travel Justification Examples

Domestic Travel

We request support for the PI and Research Associate [insert name] to attend the American Astronomical Society conference in project years 3-5 to present results. Meeting cities are not yet set. Airfare is estimated at \$500 per person per trip. Per Diem is estimated at \$200 a day for 5 days per conference.

Foreign Travel

We request support for Dr. X to travel to Chile to perform observations on the Paranal Observatory Telescope. Airfare is estimated at \$1500. Per Diem is \$215 a day for 15 days.

Participant Support Costs

Items in this budget category may relate to conference or training opportunities to be offered as a component of the proposed project or may refer to research subjects, depending on the sponsor's definition. You may be directed by the sponsor to include costs of participant stipends, transportation, per diem research subject payments or incentives and other costs associated with participants, trainees or research subjects. Some sponsors such as the National Science Foundation do not allow assessment of Facilities and Administrative Costs on this category so be certain to check the specific agency guidelines.

Example: Twelve High School teachers will be traveling to the University for three days each summer to be trained in overcoming student science misconceptions and anxieties. Each teacher will receive a \$200 stipend. Travel is estimated at \$300 per teacher. The Denver per diem rate is currently \$189. Conference costs are estimated at \$500 for handouts and other materials.

Other Direct Costs

Costs can only be charged directly to a federal grant if they can be readily and specifically identified with that particular project. This is especially true of costs that are normally considered indirect costs such as:

- Office supplies
- Personal Computers
- Books and Subscriptions
- Memberships
- Telephone (land lines and cell phones)
- Postage and Courier Charges
- Parking
- Printing and Photocopying

However, if the costs above are essential to the project's research and will be used solely for the project, then they may be budgeted—when itemized with proper justification. Always be as specific as possible. List types of purchases, estimated costs per year and, especially, why purchases are essential to and dedicated to the research on this project.

Examples of justifications are below:

Materials and Supplies:

Non-standard supplies: Optiscan format test forms for administration to students and teachers. Year 1 only. Three tests for Chemistry and another 3 for physics. We expect to administer the tests to 25,000 high school chemistry students and another 25,000 high school physics students to participate from 250 schools across America. (*Ordinarily a justification of this nature would be for a non-research sponsored project*).

Computer: Laptop needed for project-dedicated observations and travel between the telescope in Chile and UCD.

Animal Purchase Costs: For maintaining and backcrossing lines: 60 lines x twenty C57BL/J females x \$11/female = \$1,320/year for 120 mice.

Laboratory Supplies: Glassware and plastic ware, chemicals, and radioactive chemicals (32P-labeled nucleic acids).

Publication Costs:

These are costs associated with dissemination of the project's findings. Usual costs associated are journal page charges, graphic design/photography for articles, costs of publications required by the sponsor such as monographs.

Example: We request page charges. These costs are estimated based on the publication rate of the PI over the past year and are budgeted for years 3 and 4 only.

Consultant Services:

This category covers services of non-University professionals. (Note that employees at other University of Colorado institutions are included in University of Colorado Denver projects as subcontractors, not consultants.)

Examples:

Roberta Quantum-Learning, President, Quantum Learning Network (QLN) will consult with project personnel on an ongoing basis, 4 trips per year, 5 days each in Denver. Dr. Quantum-Learning's compensation rate is \$300/day. Airfare is estimated at \$500 per trip. Per diem in the Denver area is \$189/day.

Stipends for 10 Science Education Experts as Advisory Board members at a rate of \$200 per day, meeting one day each year in years 1-3 of the project. Five experts will be local and will receive mileage and the \$200 per day stipend. Five will be outside of the local area and will be reimbursed for their travel (\$400 each), lodging and meals (\$189 Denver per diem), as well as the \$200/day stipend.

Subawards

List the subaward institution and a short description of the project aspect for which they are responsible. Most agencies require inclusion of subcontractor documentation such as budget and justification. Other items to be supplied by the subcontractor include a statement of work, personnel CVs and that institution's authorized representative approval.

Examples:

Dr. Virginia Smith of Stanford University will carry out the IPB test and ProtoExist2 ASIC design. Total costs for this subaward are \$35,000 each year as outlined in the subcontractor's budget/justification.

Dr. Kevin Morris, University of Wyoming, will design and build the Gondola Pointing System. This work will start in Year Two of the project and is expected to cost \$20,000 per year as outlined in the subcontractor's attached budget/justification.

Other Direct Costs

Examples:

Mailing Services: Needed to sort, pack and mail all test sets to teachers. Estimate is based on past experience with this service. Use of service is necessary because the volume of materials exceeds the capacity of any in-house resource.

Tuition: Tuition costs to cover 9 credit hours for the graduate research assistant is requested.
(No F&A cost is applied to tuition).

Federal Express Charges: We will provide teachers and professors with FedEx return shipping labels to facilitate the return of all tests and to avoid these 500 volunteers having to pay shipping costs.

Long Distance Telephone Calls: We will be calling large number of teachers across the country in order to recruit the 500 volunteers and will be speaking with volunteer teachers numerous times throughout the project.

Facilities and Administrative Cost Rates (F&A)

Facilities and Administrative Cost Rates (F&A) (also referred to as indirect costs). These rates are negotiated with the federal government on a periodic basis. F&A rates can be found on the OGC website under the Policy section, located at <http://www.ucdenver.edu/academics/research/AboutUs/GrantsContractsOffice/policies-procedures/Pages/default.aspx>.