

Budget Basics for Investigators

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Budget Basics: 101



Budget Basics for Investigators



- Types of Applications
- Types of Budgets
- Budget Components
- Federal Requirements
- Pre-Award Policy Issues
- Other Considerations

Types of Competing Applications

- SF424 Research and Research Related (R&R) - A guide for preparing and submitting applications via Grants.gov
- PHS 398 Public Health Service Grant (including Research Career Development Awards and Institutional National Research Service Awards)
- PHS 416-1 Application for Public Health Service Individual National Research Service Award (Fellowship)

entire SF424R&R, comparing it to the PHS398:

http://era.nih.gov/ElectronicReceipt/files/Mapping_398_Data_to_SF424.pdf

Types of Budgets

- Modular vs. Itemized
- Multi-Project/Consortium
- SBIR/STTR
- Clinical Trials
- Fellowships
- Institutional Training Grants
- Research Career Awards

Application Guide

- PHS SF424 Research & Related Budget
 - **4.7 R&R Budget Component**
 - 4.7.1 Section A and B
 - 4.7.2 Sections C through E
 - 4.7.3 Sections F through K
 - **5.4 Modular Component**
 - 5.4.1 Periods 1 through 4

R&R Budget Components (1)

➤ 4.7.1 A. Senior/Key Person

- All Persons who are involved on the project at applicant institution who meet the senior/key person definition
- Faculty (academic vs. summer; person months, Institutional Base Salary; Legislative Cap)
- Collaborating Investigators
- Postdoctoral Associates
- Other Professionals



R&R Budget Components (2)

➤ 4.7.1.B. Other Personnel

- Post Doctoral Associates
- Graduate Students

- Pay for salaries as compensation for services.
- Do not pay stipends; support for studies or research training.



R&R Budget Components (3)

➤ 4.7.1. B. Other Personnel (cont'd)

- Undergraduate Students
- Secretarial/Clerical (only under certain circumstances)

Also includes.....

- Technicians, including programmers
- Interviewers and evaluators
- Administrators (only under certain circumstances)



R&R Budget Components (4)

➤ 4.7.1. Sections A and B

Some Other Personnel budget components include:

- Base Salary
- Calendar months
- Academic Months
- Summer Months
- Requested Salary
- Fringe Benefits

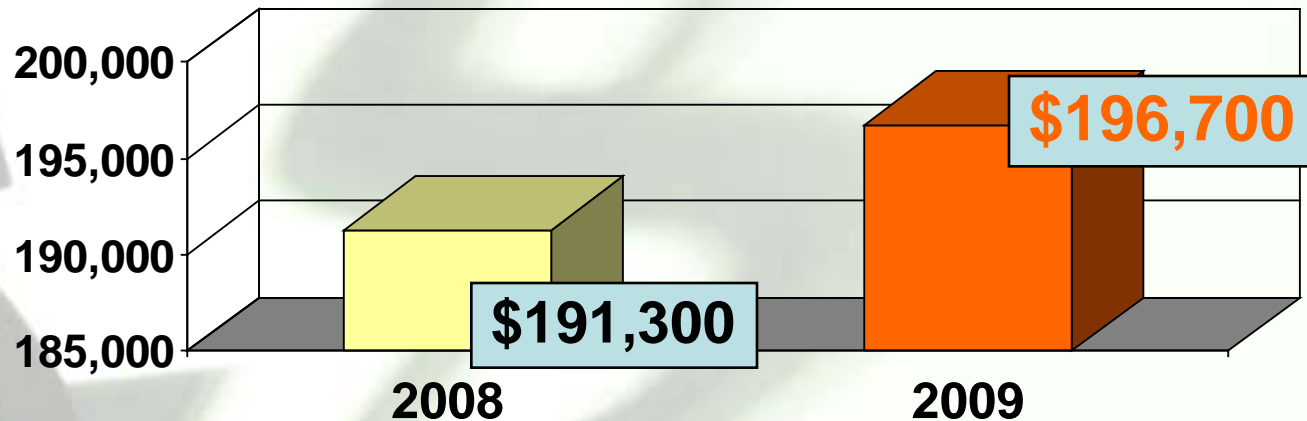


Additional information on person months:

http://grants.nih.gov/grants/policy/person_months_faqs.htm

Salary Cap

- Restricts the amount of **direct salary** under a grant or contract to Executive Level I of the Federal Executive Pay Scale
- Executive Level I increase effective January 1, 2008



March 19, 2009 NIH Guide Notice

<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-069.html>

R&R Budget Components (5)

➤ 4.7.2 Sections C through E

- C. Equipment and Description (exceeding \$5,000)
- D. Travel
 - Domestic Travel Costs (incl. Canada, Mexico and U.S. Possessions)
 - Foreign Travel Costs
- E. Participant/Trainee Support Costs
 - Tuition/Fees/Health Insurance
 - Stipends
 - Travel
 - Subsistence
 - Other



R&R Budget Components (6)

➤ 4.7.3 Sections F through K

– F. Other Direct Costs

- Materials and supplies (glassware, chemicals, lab supplies)
- Publication Costs (documenting, preparing, publishing, etc.)
- Consultant Services (incl. fee and travel costs)
- ADP/Computer Services (retrieval of information)
- Subawards/Consortium/Contractual Costs
- Equipment or Facility Rental/User Fees
- Alterations and Renovations
- Other



R&R Budget Components (7)

- G. Total Direct Costs
- H. Indirect Costs
- I. Total Direct and Indirect Institutional Costs (G + H)
- J. Fee
- K. Budget Justification



Budget Components

- Facilities & Administrative (F&A) (Indirect Costs)
 - NIH generally provides full F&A costs at negotiated rates with several notable exceptions:
 - Federal grantees – no F&A
 - Foreign grantees (and consortium) 8% of Total Direct Costs less equipment
 - Training (Ts) and Career (Ks) 8%
 - Fellowships – no F&A (but get other allowances)
 - Conference and Construction – no F&A

Budget Components

➤ Cost Sharing

- Mandatory – required by legislation, program or regulation.
 - Legislative Salary Cap
 - Cost Sharing Match (rare at NIH)
- Voluntary – offered in application
 - Investigator effort at no-cost (voluntary uncommitted becomes voluntary committed when accepted in awarded budget).

R&R Budget Components

Modular Applications ⁽⁸⁾

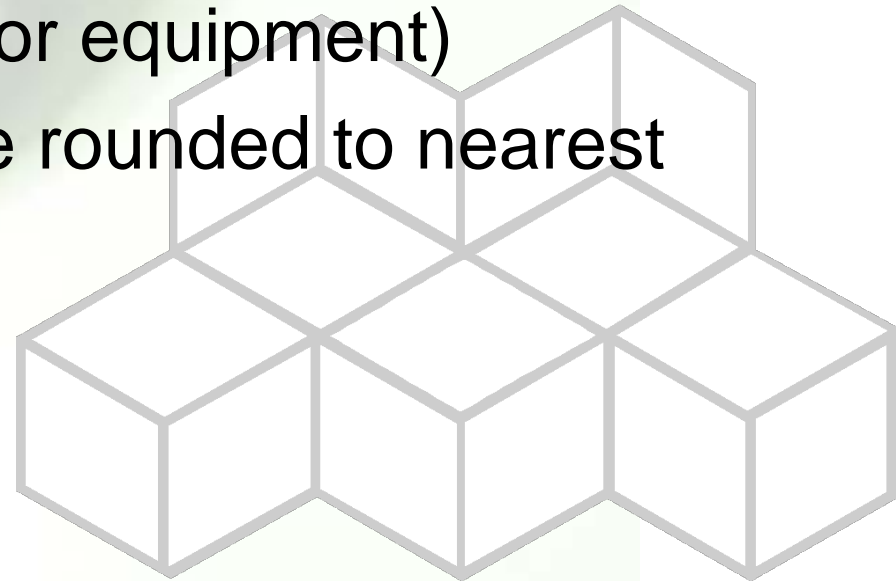
5.4 Modular Component

- No categorical budget accepted at time of application
- No categorical budget required at time of award
- No difference in allowable costs
- No difference in post-award financial management requirements



Creating a Modular Budget

1. Start with an itemized budget (R&R budget component 4.7.1)
2. Create out-year budgets
3. Divide total of all years by \$25,000
4. Request same number of modules each year (there is an exception for equipment)
5. Consortia costs may be rounded to nearest \$1,000



More on Modulars

- List all personnel at applicant organization, including names, number of months devoted to project and roles on the project
- Consortia total costs are calculated separately and rounded to nearest \$1,000. List personnel, number of months devoted to project and roles on the project.
- NIH may request detailed budget to address specific issues
- Modular budgets are applicable only to R01, R03, R15, R21 and R34 applications.

For additional information on modulars see:

<http://grants.nih.gov/grants/funding/modular/modular.htm>



Pre-Award Policy Issues

Legislative Mandates

1. Continued Salary Limitation (Section 203)
2. Anti-Lobbying (Section 503)
3. Restriction on Distribution of Sterile Needles (Section 505)
4. Acknowledgement of Federal Funding (Section 506)
5. Restriction on Abortions (Section 507)
6. Ban on funding Human Embryo Research (Section 509)
7. Limitation on Use of Funds for Promotion of Legalization of Controlled Substances (Section 510)
8. Certification of Filing and Payment of Taxes (Section 521)

NIH Guide Notice dated March 19, 2009

<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-070.html>

Pre-award Costs

At grantee's own risk and expense

- Up to 90 days prior to the start date of a competing award if costs:
 - Are necessary to conduct the project, **and**
 - Would be allowable under a potential award without prior approval
- Greater than 90 days requires prior approval; retroactive approval may be granted
- No time limit for noncompeting awards. Costs need to be allowable and carefully managed

Cost Sharing

- Not required as a condition of applying for/receiving unsolicited NIH awards
- Only a few NIH solicited programs that require it
- Nonetheless, mandatory cost sharing for salary in excess of current salary cap
- Be sure you intend to commit to cost sharing when you propose an item at no cost to the government.

Award Restrictions

- Only applied to a particular grant for cause
- Shown on the NGA in Section IV
- Restricted funds must be tracked by grantee to ensure compliance
- Example: restricted equipment funds pending receipt of current price quote or prohibiting human subjects research pending IRB review

Read the Notice of Grant Award

- Special Terms and Conditions
- Other Terms of Award
 - 45 CFR Part 74 or 92 - HHS rules and requirements that govern the administration of grants
 - NIH Grants Policy Statement - compendium of several regulatory requirements applicable to grants and cooperative agreements
 - Program and appropriation legislation
 - Program regulations
 - 42 CFR Part 52 - Grants for Research Projects

Who is Responsible for Financial Management?

- The Principal Investigator
- The Departmental Administrator
- The Department Chair
- The Institution

Other Considerations

- Consistent with institution policies and practice
- Request reasonable amounts based on current conditions and need.
- Don't request contingencies or uncommitted promotions
- Keep it reasonable
- Justify the unusual and large ticket items
- Ideally the science drives the budget and justification

Preparing a realistic budget: One perspective



One perspective



Shouldn't I just Request the Modular Maximum?

R01: \$250,000 DC per year for 5 years

How is the budget used by reviewers and program officials?

- The budget reveals the applicant's understanding of what it takes to accomplish the proposed research
- However, the budget is not used to assess scientific merit and is reviewed after the scientific merit is assessed

RULE 1: Develop a Realistic Budget!

RULE 2: Justify Your Needs!

Sections A&B: Personnel

- **Determine the amount of time (effort) that you will spend on this project.**
 - Calendar, Academic, or Summer Months
- **Determine the number, qualifications and amount of time needed for other personnel**
 - Technicians
 - Postdoctoral Fellows
 - Graduate Students
 - Undergraduate Students

Personnel (continued)

- There are no magic numbers regarding the qualifications and/or number of individuals needed for each aim.
- Be realistic about what each individual can accomplish, and the time necessary to complete the work.

Section C: Do you need new equipment?

- If you need additional equipment, this is the time to consider it.
- **Equipment should be project specific – be sure to include a written justification.**
- Most equipment is requested during the first year of the grant.
- **If you use a modular budget format, you may ask for extra module(s) to cover equipment.**

Section D: Travel funds

- This amount is usually small:
 - \$1,000 - 2,000 per meeting per individual per year
- Generally supports one meeting per year for 2-3 individuals

Section E: Participant/Trainee Support Costs

- Unless stated in the FOA, this section should be left blank for NIH applications
 - Include tuition remission under Section F: Other Direct Costs

Section F: Other Direct Costs

Estimate the **materials and supplies** needed for the personnel involved

It may be reasonable to estimate a supply budget of ~\$12,000–15,000/year for each FTE

- This number will vary depending on the nature of the research proposed.
 - Animal intensive studies and studies involving human subjects tend to be more costly.
 - *In silico* studies tend to be less costly for supplies.
- Consider stage of career of personnel involved

Section F: Other Direct Costs

- This category also includes funds needed for things such as:
 - **Publication costs**
 - **Equipment maintenance**
 - **Consortium/subcontracts**
 - **Tuition remission.**
- Estimate these expenses realistically.

Add it all Up – Year 1

	Cal Mon	Req. Salary	Fringe BenefitsReq.	Funds
A. Senior/Key Person PI	2	15,333	4,293	19,626
B. Other Personnel				
Postdoc Assoc	12	38,976	10,913	49,889
Grad Student	12	20,772	5,454	26,226
Grad Student	12	20,772	5,454	26,226
C. Equipment – Microscope				19,000
D. Travel - (2 meetings)				4,000
E. Participant/Trainee				usually left blank
F. Other Direct Costs				
Materials/Supplies				25,533
Publication Costs				1,500
Subaward/Consortium/Contractual costs				none
Tuition Remission				7,000
G. Total Direct Costs				179,000

Add it all up

- Calculate the direct costs for the first year.
 - **(for example, Year 1 budget = \$179,000)**
- Calculate the direct costs for subsequent years taking into account salary increases and changes in funds requested for equipment.
 - **Year 2 = \$164,800**
 - **Year 3 = \$169,744**
 - **Year 4 = \$174,836**
 - **Year 5 = \$180,081**

Do I need to submit a modular budget?

- Calculate the total direct costs for all years
 - **Total direct costs for 5 years = \$868,461**
- Divide total by the number of years requested
 - **Average direct costs = \$173,692/yr**
- **Investigator-initiated R01s up to \$250,000/yr must use modular format**

Convert Your Average Direct Costs to the Modular Format

- Round up to the next module (number divisible by \$25,000)
 - In the example, \$173,692/yr rounds up to \$175,000/yr
- No yearly increases for inflation
- First year may include additional modules for one-time expenses like equipment
 - In the example, add one additional module to year 1 = \$200,000

Reminder for R01 Budget

All budget requests to NIH for R01 applications use:

- the **modular format** when requesting direct costs of \$250,000 or less each year
 - the **non-modular format** when requesting direct costs greater than \$250,000 in any year
- Consortium F&A costs are not factored into the modular direct cost limit

R01 Budget with Consortium Costs

Prepare an itemized budget for the parent award

Prepare an itemized budget for consortium/subcontract costs, including:

- Personnel – salary and benefits
- Travel – professional or investigator meeting
- Other Direct Costs
 - Materials and Supplies

Total Direct Costs = \$38,300

Total Consortium Costs

➤ Consortium Direct Costs = \$38,300

➤ Consortium F&A

— consortium institution (at 50%) = \$19,150

Consortium Total Costs = \$57,450

Remember you may round to the nearest \$1,000

Add it all up

BUDGET - R01 with Consortium

	Base Salary	Cal. Month	Requested Salary	Fringe Benefits	Funds Requested
A Senior/Key Person					
PI	92,000	2	15,333	4,293	19,626
Assistant Res. Sci.	58,000	6	29,000	8,120	37,120
B Other Personnel					
Post Doctoral Associates		12	38,976	10,913	49,889
Graduate Students		12	20,772	5,816	26,588
C Equipment					
microscope					19,000
D Travel					
Travel to 3 meetings					6,000
E Participant/Trainee Support Costs					usually left blank
F Other Direct Costs					
Materials and Supplies					32,000
Publication Costs					1,500
Subawards/Consortium/Contractual Costs					57,450
tuition remission					7,000
G Total Direct Costs					256,174

Should you request a modular budget?

R01 Grant with Consortium Budget

**Submit as a modular budget
when requesting Direct Costs at or
below \$250,000 per year...**

... excluding Consortium F&A costs.

Modular Grant with Consortium Budget

In our example,

Year 1 – Itemized Total DC = \$256,124

minus Consortium F&A = \$ 19,150

Year 1 – Itemized DC excluding F&A = \$236,974

Year 2 – Itemized DC excluding F&A = \$224,513

Year 3 – Itemized DC excluding F&A = \$231,249

Year 4 – Itemized DC excluding F&A = \$238,186

Year 5 – Itemized DC excluding F&A = \$245,332

Avg Direct Cost per yr (excluding F&A) = \$235,251

Round up to the next module = \$250,000

Record Modular Budget with Consortium: PHS 398 Modular Budget, Period 1

A. Direct Costs	Funds Requested (\$)
*Direct Cost less Consortium F&A	\$250,000
Consortium F&A	\$ 19,150
*Total Direct Costs	\$269,150

The total direct costs requested are allowed to exceed the modular maximum (\$250,000) by the amount of F&A associated with the subcontract.

Money...money... and more money?

- **Applications requesting \geq \$500,000 DC** in any single year – applicants **must** seek agreement to accept assignment from Institute staff at least six weeks prior to submission.
- **Multiple principal investigator R01** is intended for projects that clearly require a “team science” approach. The Multiple PI option should not be used as a means to justify a large budget request.
- **Well-funded investigators** should consult with Institute staff regarding policies for support of new research in well-funded laboratories.

Where to get help

- SF424 R&R instructions
 - http://grants1.nih.gov/grants/funding/424/SF424_RR_Guide_General_Ver2.doc
 - http://era.nih.gov/ElectronicReceipt/faq_sf424.htm#1
- PHS 398 instructions
 - <http://grants.nih.gov/grants/funding/phs398/phs398.html>
- For additional information on modular budgets see:
 - <http://grants.nih.gov/grants/funding/modular/modular.htm>
- Your sponsored programs office
- NIH program and grants management staff
- Experienced PI

But I asked for what I needed?

- Study section may recommend reductions
 - May provide information to funding institute to appeal IRG recommended reductions
- Funding institute may reduce budget further and cut years
 - Not appealable
 - Discuss with Program officer if causes hardship

Take the Money and Run

- Build a budget for the dollars and years that are indicated on the Notice of Award.
- For modular grants remember to build in any increases in spending over duration of grant
- Don't spend all your money in year 1
- Prioritize your work and get going

Final Thoughts on \$\$

- We are all taxpayers and the \$1-2M you have just been awarded is a lot of money so spend wisely.
- Money saved may come in handy later. Personnel funds that accrue due to staffing delays may help you survive a problem at the renewal stage.
- If you have a problem, contact NIH. There may be a solution.

Questions?

