

# Budget Building Blocks for Investigators



**NIH Virtual Seminar on Program Funding &  
Grants Administration  
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# Budget Basics



- **Getting Started**
- **Types of Budgets**
- **Budget Components**
- **Other Considerations**
- **Award Policy Issues**
- **Preparing A Budget (Case Study)**



# Getting Started



# Tips for Getting Started: FOAs

- **Applications submitted to the NIH must be in response to a Funding Opportunity Announcement (FOA)**
- **Carefully Read the FOA:**
  - **Period of support** (number of years)
  - **Dollar limit** of support (for example \$100K direct cost (DC) or \$100K total cost (TC))
  - **Type of budget** submission (modular or detailed)
  - Prior approval to submit may be required for larger research projects (>\$500K DC in any year)

**Questions:** Contact Program Staff listed in FOA

# Examples from an FOA

## Section I. Funding Opportunity Description

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**Award Budget**

The combined budget for direct costs for the two-year project period may not exceed \$275,000. No more than \$200,000 may be requested in any single year.

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**Award Project Period**

The total project period may not exceed 2 years.

## Section IV. Application and Submission Information

**R&R or Modular Budget**

All instructions in the SF424 (R&R) Application Guide must be followed.

# Tips for Getting Started

- **Know the limits!**
  - FOAs may have overall **funding limits**
  - Some expenses are “**unallowable**” (e.g., lobbying, entertainment)
  - Related Notices section of FOA provide updates/clarifications
- **Identify what is necessary and reasonable**
  - Provide clear rationale for requested budget
  - Pitfalls to avoid, e.g.
    - Over or underestimating costs of proposed work
    - Large requests for new **equipment** may suggests an insufficient environment
    - Lack of rationale for grant supported **personnel**
    - Lack of justification for **costs**

*Reviewers will comment on the budget but not consider it in scoring*

**NIH Grant Application Budget Basics:**

[http://grants.nih.gov/grants/developing\\_budget.htm](http://grants.nih.gov/grants/developing_budget.htm)

# Getting Started: NIH Cost Principles

**Costs charged to NIH awards must be allowable, and:**

- Reasonable/Necessary for the grant research
- Allocable (incurred solely to advance work under the grant)
- Consistently applied
- Conform to NIH terms and conditions

# Types of Budgets





# Modular and Detailed Budgets

Two different NIH budget formats based on total direct costs requested

- **Modular** PHS 398 Modular Budget Form
  - Research Project Grants (e.g., R01, R21) excluding foreign
- **Detailed** [Categorical or Itemized] SF424 (R&R) Budget form
  - Fellowship Applications (F)
  - Career Development Awards (K)
  - Institutional Training Grants (T)
  - SBIR/STTR
  - Research Project Grants
  - Multi-Project/Consortium (e.g., U19, P30)

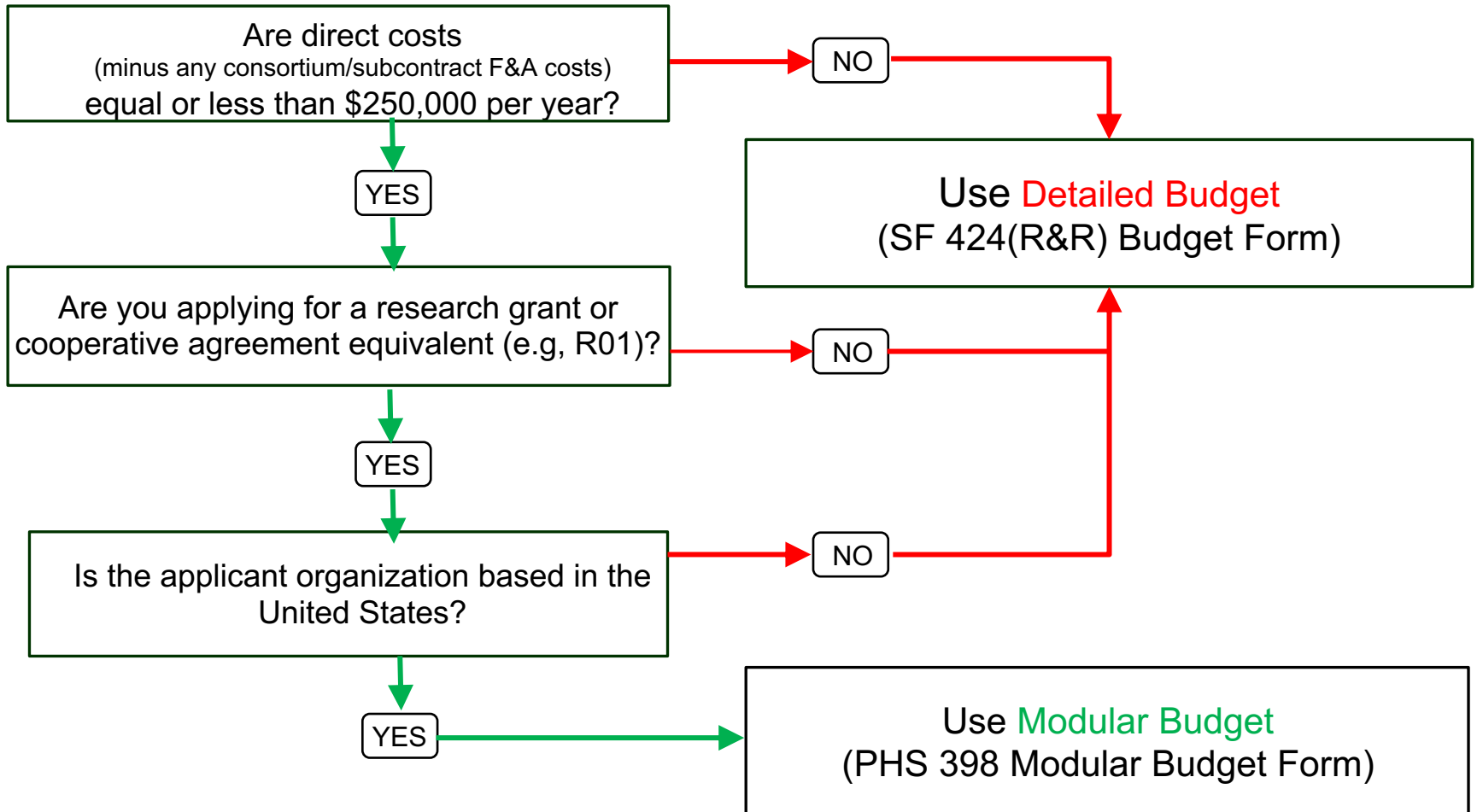
*Allowable costs or post-award financial management requirements are the same for both Modular and Detailed Budgets*

# Modular Budgets

- **Grant applications with annual direct costs  $\leq$  \$250,000**
  - Excluding direct foreign
  - Excluding consortium facilities and administrative (F&A) costs
- **Budget is built on modules of \$25,000**
  - Total itemized\* direct costs are rounded to the nearest \$25,000 increment
  - Variations in modules requested should be well justified
  - Consortium direct costs are included in the total direct costs being requested
- **No categorical budget required\*** [unless asked by NIH]
  - at time of application
  - at time of award

*\*It is advisable to create a detailed budget, for your institution's records, for each year of support requested.*

# Modular Budget Flow Chart



# Modular Budget Justification

- **List all personnel involved at Applicant Organization**
  - Name, role and number of person-months for all personnel
  - Do not include salary, fringe benefits
- **Consortia Justification**
  - List all personnel associated with Consortia/Contractual arrangements
  - Include total costs (DC + F&A) rounded to the nearest \$1,000 for each consortium/subcontract
- **Additional Narrative Justification**
  - explanations for any variations in number of modules requested annually
  - any direct costs excluded from F&A calculation (e.g., equipment, tuition remission)

**NIH may request detailed budget to address specific issues**

# Budget Components



# NIH Grant Costs Fundamentals\*

- **Direct costs:** directly attributable to the project and allowable
  - salaries w/fringe benefits, student fees/tuition, consultants, equipment, supplies, travel, publication, shared facility fees...
  - **Modified Total Direct Costs (MTDC):**  $DC - \text{costs excluded from F\&A} = \text{MTDC}$
- **F&A (Indirect) costs:** Facilities & Admistrative costs, or “overhead” shared by all cost centers
  - Specific rate is negotiated by the institution with the government or fixed by award type (e.g., training grants and direct foreign)
- **Fee (SBIR/STTR only):** reasonable profit factor available to for-profit organizations, consistent with normal profit margins; not to exceed 7% of total costs
- **Total Costs:** Allowable Direct Costs + applicable F&A (for SBIR/STTRs also includes fee)

\* *Must follow the costs principles for all costs*

# Sections A & B: Personnel Effort

## EFFORT: Person-Months

- **Amount of time (effort) committed to project by PD/PI(s).**
  - Calendar vs. Academic/Summer months  
(<https://grants.nih.gov/faqs#/person-months.htm>)
- **Number, qualifications and amount of time needed for other personnel**
  - Co-investigators
  - Technicians
  - Postdoctoral Fellows
  - Undergraduate & Graduate Students

**Calculating “person months” FAQ:**

[https://grants.nih.gov/grants/policy/person\\_months\\_faqs.htm](https://grants.nih.gov/grants/policy/person_months_faqs.htm)

# Sections A & B: Personnel

- SALARY REQUESTS
- **Percent SALARY  $\leq$  Percent EFFORT**
  - **Example:**
    - You devote 9 person-months [75%] effort
    - You can request between 0% to 75% of your salary\*

\* *up to legislated salary cap*



# Personnel (continued)

- Each individual listed in the budget should have a specific role on the project
- Be realistic about what each individual can accomplish and the time necessary for the work.
- There is no magic algorithm regarding qualifications and/or number of individuals needed for each aim.
- Explain any fluctuations in effort levels and/or staffing levels in out years (in budget justification).

# Salary Cap

- **Salary Limitation** (NOT-OD-23-056) is one of the congressional mandates in the NIH Appropriation
- Restricts the amount of **direct salary** that can be paid with federal funds under a grant or contract to Executive Level II of the Federal Executive Pay Scale (\$212,100)
- However, the participant's **actual base salary** (even if exceeding cap) should be used on the budget page.
  - Helps NIH know the current pay scales and justify increases
  - Grants Specialists will adjust to meet the cap at the time of award

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-21-057.html>

# Section C: Equipment

- **Equipment:** defined as having an acquisition cost > \$5,000 service life > 1yr (*otherwise, “supplies” category*)
  - Use is primarily allocated to proposed research project
  - Excluded from F&A base
- **Related Considerations**
  - Most equipment is requested during the first year of grant
  - For modular budgets an extra module(s) may be requested to cover equipment
  - Justification is required (especially if similar equipment is already available)
  - Consider including price quote for new equipment within application to aid evaluation of equipment cost

# Section D: Travel

- **Generally supports travel for presenting results of grant**
  - 1-2 meetings per year
  - 2-3 personnel
- **Request is usually relatively small**
  - \$1,000 - 2,000 per scientific meeting per individual per year
- **Travel for data collection, to access resources or unique instrumentation or tools may be requested**
  - Justification should clearly state how travel is related to completing the aims and goals of the proposed research

# Section E: Participant/Trainee Support Costs

- **Unless stated in FOA, this section should be left blank for NIH applications**
- **Tuition remission should be in Section F: Other Direct Costs**

# Section F: Other Direct Costs

- **Estimate materials and supplies needed for personnel involved.**
  - *For example:* ~\$12,000–15,000/year per FTE
  - Animal intensive studies, studies involving human subjects, or extensive bioinformatics, nanofabrication/foundary expenses tend to be more costly.
  - *In silico* or *in vitro* studies may have lower supply costs
- **Publication costs**
- **Equipment maintenance**
- **Tuition remission** [excluded from F&A base]
- **Shared facility fees**
- **Consortium/subcontracts**

# What is a Consortium Agreement?

Formalized agreement between prime and subrecipient whereby research project is carried out by prime and one or more other organizations that are separate legal entities.

- NIH makes an award to a single (prime) recipient
- The prime recipient must have a substantive role in conduct of the planned research and is not merely a conduit of funds to another party or parties. The prime recipient is accountable for appropriate oversight for all scientific, programmatic, financial, administrative matters of the grant.
- The relationship between the prime recipient and the collaborating organizations is considered a subaward relationship.
- The agreement must be approved by the AOR at both institutions.
- Key elements are listed in NIH GPS 15.2.1

# Budget Justification

- **Reviewers and Administrator use this to determine if scope of work matches request**
- **Explain specific responsibilities for each team member**
- **Justify unusual/large expenses**
- **Show the value of subcontracts/consortia**
  - Provide a separate budget request and justification for any subcontract/consortium
- **Significant over- or under-estimation of budget suggests lack of investigator understanding of scope of work**
  - The reviewers are investigators like you, with experience about costs of research



# Other Budget Considerations



# How is the Budget used by Reviewers and Program Officials?

## Budget considerations are administrative

- Budget is not used by reviewers to assess scientific merit
- Budget is discussed/reviewed after scientific merit is assessed and application is scored
- But ....
  - Budget presentation and justification reveals to reviewers the applicant's understanding of what it takes to accomplish the proposed research

Reviewers' recommendations on the budget are usually followed by program staff

# More Money?

- **Applications requesting  $\geq$  \$500,000 DC** in any single year – applicant **must** seek permission to submit from Institute staff at least 6 weeks before submission.
- **Multiple Principal Investigator** 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 projects in well-funded laboratories.

# Didn't Receive the Amount Requested?

- **Study section may recommend reductions in amount and/or time**
  - Applicants may discuss with Program Officer if IRG-recommended reductions can be restored
- **Funding institute may reduce budget further and limit years of support**
  - Funding Strategy for many NIH ICs includes an administrative cut
  - Funding decisions cannot be appealed
  - Discuss with Program Officer if reduction causes hardship

**A recipient seeking to revise the project aims because of reductions in time or budget may do so only with prior approval.**

# Other Considerations

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- **Ideally, the science drives the budget and justification**
- **Budgets must be consistent with recipient institution policies and practice**
- **Request reasonable amounts based on current conditions and need**
- **Don't request contingencies or uncommitted promotions**
- **Justify everything, especially the unusual large ticket items, and year to year variations**

# Common Budget Errors

- **Exceeding FOA budget amount**
- **Used a modular budget when a detailed budget is needed**
- **Budget exceeds \$500K and did not request permission to submit – application may be returned without review**
- **Modular budget request did not request F&A for consortia**
- **Costs in budget differ from justification**
- **Calendar months effort does not equate to the requested salary**
- **Miscalculation of F&A**
- **Budget years and Budgets requested do no match**
- **Not contacting NIH Staff!**

# Award Policy Issues



# Allowable vs. Unallowable Costs

Allowable	Unallowable
<ul style="list-style-type: none"><li>• Salaries (NIH salary cap: currently \$212,100)</li><li>• Equipment (needed for the project)</li><li>• Supplies (includes equipment under \$5,000)</li><li>• Travel</li><li>• Consultants</li><li>• Consortiums</li><li>• Alterations &amp; Renovations</li><li>• Other (equipment maintenance costs, animal costs, fee for service)</li></ul>	<ul style="list-style-type: none"><li>• Bad debt (200.426)</li><li>• Alcohol (200.423)</li><li>• Improper payments (200.428)</li><li>• Advertising (200.421), except for recruitment, procurement of goods, disposal of scraps/surplus materials, program outreach</li><li>• Public relations (200.421), except for costs required by the federal awardee</li><li>• Alumni/ae Activities (200.421)</li></ul>



# To Whom is the Grant Awarded?

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**The Institution**

# Who is Responsible?

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**The Institution**

**The Authorized Organizational Representative**

**The Principal Investigator**

**The Departmental Administrator**

**The Department Chair**

# Pre-Award Costs

- **Pre-award costs** are those incurred prior to the beginning date of the project period or the initial budget period of a competitive segment
- **Permissible up to 90 days prior to start date of competing award if costs:**
  - Are necessary to conduct the project, and
  - Would be allowable under a potential award without prior approval
- Spending is **at recipient's own risk** and expense
  - This is at discretion of recipient institution
- Spending greater than 90 days in advance requires prior approval
- Costs need to be both **allowable** and **carefully managed**

\*Pre-award costs are **not allowed for certain grant mechanisms**, including fellowships (F) and training grants (T)

# The Notice of Award (NoA) and You

- **Always read the Notice of Award!**
- **NoA explains the details of the grant award**
  - Drawing down funds constitutes acceptance of terms
- **Verify budget request along with the funding institute policy**
- **Please read carefully, and understand the terms**
- **If funds are restricted:**
  - adhere to the restriction(s)
  - obtain the needed documentation to remove restriction
- **Follow the funding regulations and policies**

***If you have questions, contact your grants management specialist and program officer!***

# Award Restrictions

- Any spending restrictions will be listed in the Notice of Award (NoA), Section IV
- Restricted funds must be tracked by recipient to ensure compliance
- Only applied to a particular grant for cause
- Examples:
  - Restrict equipment funds pending receipt of current price quote
  - Prohibit human subjects research pending IRB review
- **ASK NIH** first if you have questions!

**Always read your Notice of Award!**

# Other Terms of Award

- **Program regulations: 42 CFR Part 52 - Grants for Research Projects**
- **Program and appropriation legislation**
- **45 CFR Part 75 - 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**

# Research Based on Award Budget

- Build a budget for the dollars and years that are indicated in the Notice of Award
- For modular grants, build in any increases in spending over duration of grant
- Prioritize research work and get started
- **Changes?** Ask Grants Management/Program Staff BEFORE you implement
- **Delays?** Unspent funds may be carried forward if appropriately justified/explained

## Additional Thoughts

- Most taxpayers think a **\$1M+ award is a lot of money**. Spend it wisely.
- **Contact Program or Grants Management Staff with Budget problems or questions EARLY!**

# Resources

- NIH OER Grants and Funding Information
  - [http://grants.nih.gov/grants/about\\_grants.htm](http://grants.nih.gov/grants/about_grants.htm)
- SF424 R&R guides and FAQs
  - <http://grants.nih.gov/grants/funding/424/index.htm#inst>
  - [http://grants.nih.gov/grants/ElectronicReceipt/faq\\_full.htm](http://grants.nih.gov/grants/ElectronicReceipt/faq_full.htm)
  - <http://grants.nih.gov/grants/funding/modular/modular.htm>
- NIH Program and Grants Management staff
- Your institutional Sponsored Programs Office
- Other experienced individuals at your institution



**Thank you for your attention.**

**Questions??**

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