

Proposal Budgeting 101

Office of Sponsored Research (OSR)

University of North Carolina at Chapel Hill

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Office of Sponsored Research

Estimating the Budget – Training Outline

- This training was designed to explain the basics of proposal budgeting (e.g. Budgeting 101)
- Each section provides the following information
 - A general definition of the specific cost element
 - An explanation of how to estimate the specific cost element
 - The information or direction to the information required to calculate the specific cost element
 - A practice calculation so you can learn how to budget a specific cost element
 - A reminder box at the bottom signified by a “Tarheel” provides helpful information/direction regarding the cost element
- The last exercise will involve the training class developing a budget based upon criteria we have developed that will test what you have learned during the training
- Finally, we provide a list of helpful hints to remember when you are completing budgets



Remember to read the Program Announcements (PA) and the sponsors guidelines to ensure you are developing a budget that is compliant with the sponsors requirements

Estimating the Budget – Training Outline

The following are the cost elements that will be addressed:

- **Personnel**
 - Salary
 - Escalation
 - Fringe Benefits
 - Health Insurance
 - Physicians & Associates Supplement (P&A)
- **Non-Personnel**
 - Equipment
 - Travel
 - Subcontracts
 - Consultants
 - Material & Supplies
 - Tuition
- **Indirect Costs**
 - Facilities & Administrative



This presentation is limited to budgeting basics. Training will be provided in the future regarding items such as cost sharing, labor hour contracts, etc...

Estimating the Budget - Salary

- Compensation received by *any* person through UNC-CH's payroll is considered to be salary.
- Verify your PI is eligible to be a PI in accordance with UNC-CH policy
 - The PI must be a full-time permanent EPA employee.
- Proposed salary should be based upon the Institutional Base Salary of the person being proposed.
 - Factor in (escalate) any projected legislative increase that may occur prior to the start date of the grant (3-5%).
 - Salaries for TBD personnel should be based upon the Institutional Based Salary for the proposed position.
- Some Agencies impose a salary cap (such as NIH's \$191,300). Be sure to review the OSR General Information Sheet to verify you are using the most current information:
http://osr.unc.edu/information/general_info.php



Only UNC-CH Employees should be proposed on the salary line. Consultants and Subcontractors should be proposed under those specific lines.

Estimating the Budget - Salary

- Unless otherwise directed by the sponsor, proposed salary is based upon the percent of effort the UNC-CH employee will work on the project.
- NIH now uses person months instead of percent effort (based on 12 or 9 month appointments and summer months). Conversion table for percent effort to person months
http://grants.nih.gov/grants/policy/person_months_conversion_chart.xls
- If you propose % effort for personnel without proposing \$\$ it can constitute cost sharing.

Estimating the Budget – Salary (12 Month)

Percent of Effort Model

Full-Time Equivalent (FTE), percent effort and salary for employees with a 12 month appointment are calculated as follows:

$$\# \text{ Months effort} \div \text{twelve (12)} = \text{FTE}$$

$$\text{FTE} * 100 = \% \text{ of effort}$$

$$\% \text{ of effort} * \text{Institutional Base Salary} = \text{Proposed Salary}$$

Example:

Dennis Connolly is a full time employee with a 12 month appointment who has an institutional base salary of \$100,000/yr. Dennis plans to spend two months working on Project X during the year. What is Dennis' FTE, percent of effort and salary?

$$2 \text{ months effort} \div 12 = .167 \text{ (FTE)}$$

$$.167 \text{ (FTE)} * 100 = 16.7\% \text{ of effort}$$

$$16.7\% \text{ effort} * \$100,000 = \$16,700 \text{ Proposed Salary}$$



Employees with 12 month appointments earn their salary over a twelve month period and are paid over a twelve month period.

Estimating the Budget – Salary (12 Month)

Person Months Model (NIH)

Salary for employees with a 12 month appointment are calculated as follows:

Percent of Effort * 12 = # Months Effort

(Institutional Base Salary ÷ 12) * # Months Effort = Proposed Salary

Example:

Dennis Connolly is a full time employee with a 12 month appointment who has an institutional base salary of \$100,000/yr. Dennis plans to spend 20% effort working on Project X during the year. What is Dennis' person months and proposed salary?

20% Effort * 12 = 2.4 Months Effort

(\$100,000 ÷ 12) * 2.4 Months Effort = \$20,000 Proposed Salary



NIH Conversion table can be used if you have percent effort that must be converted to person months

http://grants.nih.gov/grants/policy/person_months_conversion_chart.xls

Estimating the Budget – Salary (9 Month)

Percent Effort Model

Full-Time Equivalent (FTE), percent effort and salary for a 9 month appointment employee are calculated as follows:

$$\# \text{ Months effort} \div \text{nine (9)} = \text{FTE}$$

$$\text{FTE} * 100 = \% \text{ of effort}$$

$$\% \text{ effort} * \text{Institutional Base Salary} = \text{Proposed Salary}$$

Example 1:

Bob LeRoy is a full-time employee with a 9 month appointment who makes \$80,000/yr. Bob plans to devote two months work during the school year on Project X. What is Bob's FTE, percent of effort and salary?

$$2 \text{ months of effort} \div 9 = .222$$

$$.222(\text{FTE}) * 100 = 22.2\% \text{ of effort}$$

$$22.2\% \text{ of effort} * \$80,000 = \$17,760$$

Example 2:

Frank Martin is a half-time employee with a 9 month appointment who makes \$45,000/yr. Frank plans to devote two months of work during the school year on Project X. What is Frank's FTE, percent of effort and salary?

$$2 \text{ months of effort} \div 9 = .222$$

$$.222(\text{FTE}) * 100 = 22.2\% \text{ of effort}$$

$$22.2\% \text{ of effort} * \$45,000 = \$9,990$$



Effort of a 9 month employee during the school year should be shown as # of months in Academic Year.

Estimating the Budget – Salary (9 Month)

Person Months Model (NIH)

Salary for a 9 month appointment employee are calculated as follows:

Percent of Effort * 9 = # Months Effort

(Institutional Base Salary ÷ 9) * # Months Effort = Proposed Salary

Example 1:

Bob LeRoy is a full-time employee with a 9 month appointment who makes \$80,000/yr. Bob plans to devote 20% effort during the school year on Project X. What is Bob's months of effort and proposed salary?

20% * 9 = 1.8 Months Effort

**\$80,000 ÷ 9 * 1.8 Months Effort =
\$16,000 Proposed Salary**

Example 2:

Frank Martin is a half-time employee with a 9 month appointment who makes \$45,000/yr. Frank plans to devote 20% effort during the school year on Project X. What is Frank's FTE, percent of effort and salary?

20% * 9 = 1.8 Months Effort

**\$45,000 ÷ 9 * 1.8 Months Effort =
\$9,000 Proposed Salary**

Summer salary is earned and paid during the 3 months of summer. It is compensation in addition to the normal 9 month salary. Some sponsors do not allow you to propose for all 3 summer months. READ the sponsor guidelines!

Estimating the Budget – Salary (Summer)

Percent Effort Model

•Salary for a 9 month appointment employee working during the summer months are calculated as follows:

–Step 1: # Summer Months Effort ÷ 9 months = FTE

–Step 2: FTE * 100 = % of effort

–Step 3: % effort * Institutional Base Salary = \$ Proposed Summer Salary

•**Example:**

–Mike Baker is a full-time employee with a 9 month appointment who makes \$60,000/yr. He plans to have two months effort during the summer months on Project X. What is Mike's FTE, percent of effort and salary?

$$2 \text{ months effort} \div 9 \text{ months} = .22 \text{ FTE}$$

$$.22 * 100 = 22\% \text{ of effort}$$

$$22\% * \$60,000 = \$13,200$$

Estimating the Budget – Salary (Summer)

Person Month Model (NIH)

Salary for a 9 month appointment employee working during the summer months is calculated as follows:

Step 1: Institutional Base Salary \div 9 months = One Month of Summer Salary

Step 2: # Summer Months Effort * One Month Summer Salary =
\$ Proposed Summer Salary

Example:

Mike Baker is a full-time employee with a 9 month appointment that makes \$60,000/yr. He plans to have two months effort during the summer months on Project X. What is Mike's FTE, percent of effort and salary?

Step 1: \$60,000 \div 9 months = \$6,667 One Month Summer Salary

Step 2: 2 Summer Months Effort* \$6,667 = \$13,340 Proposed Summer Salary

Estimating the Budget – Salary Escalation

- Escalation is the cost that may be added to proposal budgets in consideration of the effects of price/cost inflation on current year costs. 3 - 5% is commonly used.
- Escalation rates may be limited by the sponsor. Read the sponsor's guidelines or ask the appropriate OSR Contract Specialist what rate is generally accepted by the sponsor.
- Escalation should be added to all of the future year budgets.

Escalation is estimated in the following manner:

$$\text{Institutional Base Salary} \times \text{Escalation Rate} = \text{Escalated Institutional Base Salary}$$



Equipment should not be escalated in proposals. Equipment costs should be proposed based on actual vendor quotes.

Estimating the Budget – Salary (Exercise 1)

It is March 1st and Nancy Ringel is being proposed as a PI on a NIH proposal that will start on June 15th. Nancy has a 12 month appointment and says she makes \$200,000/year. Nancy plans to work four months during the year.

What are the first actions you should take to estimate Nancy's proposed salary and how much is her proposed salary in the first year of the project?

Estimating the Budget – Salary (Exercise 2)

It is February 1st and Chris Ballantine is being proposed as a PI on a Department of Energy proposal that will start on June 1st. Chris has a 9 month appointment and says he makes \$90,000/year. Chris plans to work six months during the academic year and one of his summer months on the project.

What are the first actions you should take to estimate Chris' proposed salary and how much is his proposed salary in the first year of the project?

Estimating the Budget - Fringe Benefits Overview

- Fringe Benefits are expenses directly associated with employment. Use the percentages on the following page for estimating fringe in your proposals.
- UNC-CH calculates fringe benefits using two components. The first is a percentage which covers some/all of the following:

Social Security	Retirement
Workers Compensation	Disability
Severance	Unemployment
- The second component is Health Insurance. Rates differ depending upon the classification of employee.
- Some employees who qualify also receive Physicians & Associates Supplemental fringe benefits.
- All components are to be factored on all proposals.



Remember to check if the proposed personnel are “Clinical Faculty”. If they are, you must include UNC Physicians and Associates (P&A) Supplemental Fringe Benefits described on P&A page.

Estimating the Budget - Fringe Benefits

- Fringe Benefits are expenses directly associated with employment.

Use the following percentages for estimating fringe in your proposals.

- Full-time Permanent EPA/SPA employees **19.10%**
 - Post Doc's **7.65%**
 - Grad Students (<3 hours - School year)(<2 hours – Summer) **7.65%**
 - Under Grad Students (<6 hours - School year)(<2 hours - Summer) **7.65%**
 - Part-time employees **7.65%**
- Fringe benefits are calculated as follows:

Salary Requested * Fringe % = Fringe Dollars

Example 1:

Stella Smith's Requested Salary is \$15,000. Stella Smith is a full-time employee with a 12 month appointment. How much should be proposed for Stella's fringe dollars?

$$\mathbf{\$15,000 * 19.1\% = \$2,865}$$

Estimating the Budget - Fringe Benefits (Exercise 2)

- Chris Ballantine is a full-time employee with 9 month proposed salary of \$60,030 and \$9,990 in proposed salary for the summer months. What should you propose for Chris' fringe benefits in the proposal?
- Shelley Briles is a Post Doc that makes \$25,000/year. What should you propose for Shelley's fringe benefits in the proposal?
- Loren O'brien is a grad student that has a 6 hour load during the school year and makes \$15,000/year. Loren is being proposed on an NSF project during the school year. What should you propose for Loren's fringe benefits in the proposal?
- Danny Carrick is being proposed as a PI on a NIH proposal. Danny is a part-time employee who makes \$24,000/year. What should you propose for Danny's fringe benefits in the proposal?

Estimating the Budget – Health Insurance

- Health Insurance is proposed based upon the percentage of effort the employee will work on the project.
- Health Insurance costs differ depending on the classification of the UNC-CH employee.
- Use the following to calculate health insurance costs:

	<u>Monthly</u>	<u>Annually</u>
– EPA/SPA permanent employees (75% FTE or greater)	\$346.42	\$4,157.00
– Post Doctoral Trainees	\$212.13	\$2,545.00
– Post Doctoral Research Associates	\$212.13	\$2,545.00
– Graduate Student (Eligible Grad Research Assts (GRA))	\$157.42	\$1,889.00
- No Health insurance is charged for a 9 month employee working in the summer. That’s why we recommend using the annual health insurance rate rather than the monthly when budgeting.
- Please check the OSR website periodically to verify you are using the most current rates. http://osr.unc.edu/information/general_info.php

Example: Gene Stull is a full-time SPA employee with 25% percent effort. What is Gene’s proposed health insurance cost in year 1?

$$25\% * \$ 4,157 = \$1,039.25$$

 Remember to check if the proposed personnel are “Clinical Faculty”. If they are, you must include UNC Physicians and Associates (P&A) Supplemental Health Benefits described on P&A page.

Estimating the Budget – Health Insurance (Exercise 3)

- Chris Ballantine is a full-time employee with a 9 month appointment. Chris is proposed at 66.7% percent effort for the academic year and 50.0% percent effort for the summer. What should you propose for Chris' health insurance in the proposal?
- Shelley Briles is a Post Doc proposed at 50.0% percent effort. What should you propose for Shelley's health insurance in the proposal?
- Loren O'brien is a grad student proposed at 90% effort. What should you propose for Loren's health insurance in the proposal?
- Danny Carrick is a half-time employee with 75% percent effort. What should you propose for Danny's health insurance in the proposal?

Estimating the Budget – Physicians & Associates Supplement

- Physicians & Associates (P&A) supplemental costs apply to Clinical Faculty members who are properly licensed to practice medicine in the State of North Carolina or who provide other clinical functions and have a Full Time position of 50% or greater provided appropriate approvals have been completed by UNC P&A.
- The following supplement should be added to the appropriate fringe (e.g. 19.1% + 5.5% = 24.6%) and health insurance (e.g. \$4,157 + \$1,690 = \$5,847) for each qualifying individual based upon their percent of effort on the project. Use the amounts in the following matrix to calculate the P&A Supplemental costs.

<u>Allowable Benefit</u>	<u>Annual Rate</u>	
Employee Life Insurance	0.72%	} 5.5% Total supplement to Fringe
Employee Acc. Death & Dis. (AD&D)	0.12%	
Employee Long Term Disability	1.10%	
Employee Retirement	<u>3.50%</u>	

<u>Allowable Benefit</u>	<u>Annual Rate</u>
Employee Medical Insurance	\$1,272.12
Employee Dental Insurance	<u>\$ 418.32</u>
Total supplement to Health Ins.	\$1,690.44 (Use \$1,690)

- Check the OSR website periodically to verify you are using the most current rates.

http://osr.unc.edu/information/general_info.php



If you have any questions regarding P&A supplemental benefits see the following website <http://www.med.unc.edu/fbo/policies.htm#Supplementals>

Estimating the Budget - Equipment

- Capitalized equipment, for the purpose of the Asset Management system, is defined as an *item* with an acquisition cost of \$5,000.00 or more. The cost of equipment includes tax, installation charges and freight. These charges are added to determine the acquisition cost. Equipment generally has all of the following characteristics:
 - acquisition cost of \$5,000 or more
 - a life span of one year or more
 - non-expendable material
 - not consumed
 - a group of items costing less than \$5,000.00 each, when combined, make up one functional unit with a combined cost of \$5,000.00 or greater is considered one piece of equipment. (e.g., microscope components) ITEMS CANNOT STAND ALONE
- The entire definition of equipment and other useful information can be found at:
<http://www.unc.edu/mds/am/asset.htm>
- Be sure to separately list all qualifying equipment in the budget to ensure you are not combining materials and supplies into the equipment cost.



Generally... remember to exclude the cost of equipment from the Facilities and Admin. calculation if you are using Modified Total Direct Costs (MTDC) to calculate F&A (Read the sponsors guidelines!)

Estimating the Budget – Equipment (Exercise 5)

- Dr. Dick Milliken is creating a research facility in support of an DOE grant. Dick has a list of the following items he needs to procure.

Harris Z8HDC transmitter	\$59,000
Harris ZHD Exciter rack Assembly	\$ 3,000
Harris RF transmission line	\$ 1,000
Dell PC	\$ 4,000
Dell 19” Flat Screen Monitor	\$ 1,000
Dell Printer	\$ 500

What items on the list qualify as equipment?

Estimating the Budget - Travel

- Travel can be either domestic (within the U.S.) or Foreign (outside the U.S.).
- UNC-CH has a detailed Travel Policy outlining what is allowable when traveling as a UNC-CH employee. Note: Sponsor regulation may differ and take precedence. The Travel policy can be found at: <http://www.ais.unc.edu/busman/tra/trapol10.html>
- Each sponsor has specific requirements regarding how they prefer travel to be presented in a proposal. Generally it is shown as a line item within the proposal with the details provided in the budget justification. The matrix below is an example of a good description for proposed travel.
- At the beginning of the grant process you must select which method of estimating travel you are going to use (i.e. UNC Policy or GSA (General Services Adm.) Policy). You can't pick and choose between the two depending on which one is more favorable in this situation and the other is better next time. Once you pick one you must stick with it! Do not mix and match UNC Policy and GSA Policy.
- It is a requirement that you 'Fly American' if the grant is from the feds or a federal flowdown.

<u>Destination/ Purpose</u>	# of Individuals	Registration	Per Diem Allocation*	Airfare / Mileage	Car Rental	# of Nights	Cost / Trip	# of Trips	Total Travel Costs
Professional Meeting									
Sponsor Meeting									



*** PerDiem includes lodging, meals and incidental expenses (M&E).**

Estimating the Budget - Travel

- Check the UNC-CH travel allowances for UNC-CH travel
<http://www.ais.unc.edu/busman/tra/trapol3.html>
- Check the GSA rates for federal rates
<http://policyworks.gov/org/main/mt/homepage/mtt/perdiem/travel.htm>
- Check the State Department International perdiems as applicable.
<http://www.state.gov/m//als/prdm/>
- The following is an example of an acceptable method to present travel in a proposal.

<u>Destination/ Purpose</u>	# of Individuals	Registration	Per Diem Allocation	Airfare / Mileage	Car Rental	# of Nights	Cost / Trip	# of Trips	Total Travel Costs
Professional Meeting	1	\$450	\$142	\$600	\$45	3	\$1,611	1	\$1,611
Sponsor Meeting	1		\$142	\$500	\$45	1	\$687	2	\$1,374

Estimating the Budget – Travel (Exercise 6)

Dr. Jay Rivera is traveling to Australia for a conference in support of an NIH Grant. Jay is taking one research assistant and will be in Australia for 6 nights. Jay and the assistant will need a car while in country. Roundtrip airfare is \$2,000. Rental car is \$50/day. Lodging is \$150/night. Meals and expenses is \$40/day. Registration for Jay \$500. As an assistant, the registration is waived. What do you do in order to ensure you are correctly pricing the travel? What is the proposed cost of the trip?

- 1) Read your sponsors guidelines.
- 2) It is a requirement that you 'Fly American'?
- 3) Check the UNC-CH travel allowances
- 4) Check the GSA rates
- 5) Check the State Department International perdiems as applicable.
- 6) Estimate the travel using consistent information (Either UNC Policy or Federal Policy)

<u>Destination/ Purpose</u>	<u># of Indivi duals</u>	<u>Registr ation</u>	<u>Per Diem</u>	<u>Airfare / Mileage</u>	<u>Car Rental</u>	<u># of Nights</u>	<u>Cost/ Trip</u>	<u># of Trips</u>	<u>Total Travel Costs</u>

Estimating the Budget – Subcontracts

- A subcontract must be included in the proposal when a portion of the project is to be done by another organization.
- The total costs for a Subcontract (subcontract direct costs and F&A costs) are considered direct charges on the UNC-CH project.
- The UNC-CH proposal must include a cover page or letter of commitment from the subcontractor with the signature of an authorized institutional official.
- It is helpful to include a copy of the subcontractors proposal in the package submitted for review.
- Once the grant is awarded to UNC-CH, OSR will require a copy of the subcontractor's F&A agreement and budget.



Some sponsors have specific guidelines regarding what is a subcontract and what is not. Read the guidelines!

Estimating the Budget – Subcontracts (Exercise 7)

- Dr. Bill Cullumber is submitting a proposal to the National Science Foundation (NSF). Harvard is a part of the collaborative research team on the proposal for a total amount of \$300,000. How much does Bill include in the proposal for subcontracts?

- Dr. Claudine McNult is working on a proposal to the Department of Energy. Claudine has a subcontract to Duke University in the amount of \$1,000,000. Duke is subcontracting to NC State for \$500,000 of which NC State is subcontracting \$200,000 to Wake Community College. How much subcontract dollars does Claudine propose under the subcontracts line in her proposal?

Estimating the Budget – Consultants

- A consultant is an independent contractor, not affiliated with the University working for a limited period of time to provide specific services. To determine if someone falls into the category of consultant or employee, please review the Internal Revenue Service guidelines at:
<http://hr.unc.edu/Data/SPA/temporaryemployment/other-employment/ind-contractor>
- Consultants do not receive fringe benefits and are not provided with supplies, administrative support or other standard business items. Consultants can receive reimbursement for travel expenses.
- Compensation for a consultant should be based upon their salary/consultant rate history for comparable services. Remember to check funding agency guidelines for caps on consultant rates.
- Compensation is expressed as either a daily rate or a fixed, set amount for the services to be provided.

Estimating the Budget – Consultants Examples

Example 1:

The Business School is hiring Tracy Latvala to conduct a training session. The training session is five days long and Tracy will need five days to prepare for the training. Review of Tracy's salary history shows that she is paid \$350/day for conducting trainings.

Tracy should be budgeted for 10 days @ \$350/day for a total of \$3,500.

Example 2:

The School of Education is hiring Curt Sheaffer to perform a project evaluation. Over the course of six months Curt will gather, review and analyze the data and write the report. Curt will need to travel to project sites in Wilmington and Asheville. Based on knowledge of comparable evaluations, Curt and the School of Education have agreed to a cost of \$5,000 for receipt and acceptance of the report.

Curt should be budgeted at \$5,000.

Estimating the Budget – Consultants (Exercise 8)

Problem 1:

Dr. Meagan Jankowics requires Dr. Janina Rivera to work on her HIV research Project. Meagan wants Janina to come to UNC-CH and work in her lab under her direction for one year. Janina charges \$4000/week. Janina is local so there are no travel costs. What are the proposed consultant costs for Janina?

Estimating the Budget – Consultants (Exercise 8) cont.

Problem 2:

Dr. Linda Kromer requires the world renowned scientist Dr. Lee Hoff to consult on her mouse cloning project for Pharmacology Inc. Linda requires Lee's services for one week starting first thing Monday morning and ending at 5:00 on Friday. Lee lives in Florida and will have to fly in on Sunday (4 hour flight) to attend the early Monday meeting. Lee charges \$1,600/day plus travel time and travel expenses. Airfare is \$200 roundtrip, lodging is \$100/night, car rental is \$200/week and per diem is \$40/ day. What would be the proposed consultant costs for Lee?

Estimating the Budget – Consultants (Exercise 8) cont.

Problem 3:

Dr. Maggie Miles works in the UNC-CH School of Public Health. Maggie needs six weeks of consulting services of Dr. Ellie May Ward from the UNC-CH School of Medicine on her Hepatitis study. Ellie May makes \$150,000/year. What are the proposed consultant costs for Ellie May?

Estimating the Budget - Other Direct Costs

- Other Direct Costs (ODC's) are the remaining costs that are directly related to the project.
- Examples of these costs are materials, supplies, publication, computer services, animal costs, postage, leases, maintenance contracts, tuition and any other cost specific to the project.
- These costs must be described in detail in the budget justification. The detail should adequately describe and support the amount of costs in the proposal.
- Each sponsor may categorize ODC's differently in their guidelines. Some may break them out separately and some may lump them together in a single category marked ODC's.



Read the Program Announcement, UNC-CH Cost Accounting Standards and the sponsors guidelines!

Estimating the Budget – Materials and Supplies (Exercise 9)

Dr. Amy Hall is bidding on an American Heart Association Grant. Amy is going to perform a number of tests and requires the following supplies. 100 Mice @ \$10/ mouse. 6000 Test Tubes at \$1.00/each. One mouse reproductive incubator @ 6,500/each. Mouse food – 10 boxes @ \$100/box.

What is the total proposed cost of Amy's Materials and supplies?

Estimating the Budget – Tuition

- Tuition may be proposed for eligible graduate students.
 - For eligibility :
http://gradschool.unc.edu/fellowships_and_funding/current.html#tuition
 - For tuition rates:
<http://cashiers.unc.edu/stufininfo.htm>
- Tuition is proposed based upon the percentage of effort the employee will work on the project.
% Effort * Tuition Cost = Tuition Cost per employee

Example:

Jim Simrall is a graduate student who is being proposed for 25% effort on a NIH grant. What do you do to estimate Jim's tuition remission cost and what is the cost?

<u>% of Effort</u>	<u>Tuition</u>	<u>Cost per Employee</u>
25%	\$3,118.04 x 2	\$ 1,599.02

Estimating the Budget - Facilities & Administrative (F&A)

- F&A is defined as the expenses essential to the conduct of sponsored research activities but cannot be readily attributed and direct charged to specific individual projects.
- First you must determine if the project is sponsored research, instruction, other sponsored activities or a clinical trial. (Most of our proposals fall within the sponsored research)
- Second you must determine if the project will be performed on or off campus.
- The OSR General information Sheet provides the current matrix of the Universities F&A rates that should be used when proposing projects. The website is http://osr.unc.edu/information/general_info.php



UNC does not have a standard 8% training rate for training grants. Some Sponsors limit training grants to 8% F&A. Read the guidelines!

Estimating the Budget - Facilities & Administrative (F&A) cont.

- Modified Total Direct Costs (MTDC) are costs that have been modified to exclude certain direct costs from the F&A Base.

MTDC = Total Direct Costs minus the following:

- equipment (an item costing \$5,000 or greater)
 - capital expenditures
 - rental costs of off-site facilities
 - charges for patient care
 - tuition remission
 - scholarships, and fellowships
 - the portion of each sub-grant and subcontract in excess of \$25,000
- Some proposals (such as industry funded clinical trials) calculate F&A on total direct costs. You must read the RFA/RFP to determine the appropriate method for estimating F&A.

Estimating the Budget - Facilities & Administrative (F&A)

Example:

Eric Haverly is establishing a lab in support of a NSF Grant with 47.5% F&A. Eric has proposed the following items. What is the proposed cost for equipment, materials and supplies, and F&A?

Mass Spectrometer	\$10,000
Cables for Mass Spectrometer	\$ 3,000
Miscellaneous Cables	\$ 1,000
Wave Guide Analyzer	\$ 4,000

Equipment

Mass Spectrometer	\$10,000
Cables for Mass Spectrometer	<u>\$ 3,000</u>
Subtotal	\$13,000

Materials and Supplies (M&S)

Miscellaneous Cables	\$ 1,000
Wave Guide Analyzer	<u>\$ 4,000</u>
Subtotal	\$ 5,000
F&A @ 47.5%	<u>\$ 2,375</u>
Total M&S & F&A	\$ 7,375

Total Equipment, Materials & Supplies and F & A	\$20,375
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Estimating the Budget – (F&A Exercise 11)

Dr. Sandy Cover is a PI preparing a \$500,000 proposal for a biology project that is being performed on UNC-CH campus and in Washington State at Thursday Harbor. There is a subcontract to the University of Washington in the amount of \$200,000. The balance of the project (\$300,000) is comprised of UNC-CH labor. 60% of the UNC-CH labor will be completed on the UNC-CH campus and 40% will be performed in the field. How should Sandy propose this project, on or off campus?

Dr. Mike Talley is a UNC-CH PI that is preparing a \$100,000 proposal for the Durham Housing Authority that is being performed on UNC-CH campus and in East Durham. There is a subcontract to Duke in the amount of \$80,000. The balance of the project (\$20,000) is comprised of UNC-CH PI's labor. 100% of the UNC-CH labor (\$20,000) will be completed on the UNC-CH campus. How should Mike propose this project, on or off campus?

Estimating the Budget - (F&A Exercise 12)

Liz Parker is establishing a computer lab in support of a DOE Grant with 47.5% F&A. Liz has a \$500,000 subcontract with Duke, has \$4,673 in tuition costs and has proposed the following items. What is the proposed cost for subcontracts, materials and supplies, equipment and F&A?

Microscope	\$	6,000
Flat Screen Monitor	\$	1,000
Connecting Cables	\$	3,500

Estimating the Budget - (F&A Exercise 12) cont.

Subcontracts \$ _____

Equipment \$ _____

Tuition \$ _____

Total Direct Costs \$ _____

<u>F&A Calculation</u>	
Total Direct Costs	\$ _____
Minus Exclusions:	
_____	-\$ _____
_____	-\$ _____
_____	-\$ _____

Modified Total Direct Costs	\$ _____
F&A @ 47.5%	\$ _____

Total F&A \$ _____

Total Proposed Amount \$ _____

Estimating the Budget – Helpful Hints

- Read the Program Announcement – Each proposal, even if it is the same sponsor, can have different proposal instructions
 - Verify if you should prepare the proposal based upon Modified Total Direct Costs (MTDC) or Total Direct Costs (TDC)
 - Some sponsors limit the amount of F&A they will accept on a proposal. If the sponsor limits the F&A, include a copy of the Program Announcement or the sponsors website so that OSR can verify and accept the lower rate.
- Make sure you are using the most current information from the OSR General Information sheet. We are updating it online constantly as the information changes.
- Don't forget to escalate the costs for the future years (3% to 5% depending on the sponsor)
- If you have a multi-year project... once you have budgeted F&A on the first \$25,000 of a subcontract don't continue to budget the F&A for the subcontract each year. Once the first \$25,000 is accounted for then you are done, no matter how many years the subcontract lasts.
- Include the Program Announcement with your proposal when you submit it to OSR. It WILL expedite the review process by allowing the reviewer to verify if you prepared the budget properly.

Estimating the Budget – Simple Budget (Exercise 13)

Dr. Richard Bartels is a Ph.D. with a 12 month appointment being proposed as a PI working 6 months of the time on an NIH Grant. Richard makes \$120,000/year. In addition, Paul Levy is an employee with a 9 month appointment being proposed as the Co PI at 4 months during the academic year and one month during the summer. Paul makes \$90,000/year. A graduate student who makes \$24,000/year is proposed at 100% and receives \$4,673 in tuition.

Richard has a subcontract with the University of San Francisco in the amount of \$100,000. Richard will have to travel to San Francisco for two 3-day conferences. Airfare is \$800 each trip. Lodging is \$150/night each trip. Car Rental is \$50.75/day and per diem is \$32.50/day each trip.

What is the proposed budget for Richard's Project?

Richard needs the following items in support of this proposal.

- 1) Consultant (4 weeks with an annual salary of \$130,000)
- 2) Rats \$ 1,000
- 3) Gene Analyzer \$40,000
- 4) Mice \$ 500
- 5) Communication \$ 600
- 6) Rabbit food \$ 500
- 7) Printer \$ 1,000
- 8) Mass Spectrometer \$20,000
- 9) Printing \$ 200
- 10) Computer \$ 4,000
- 11) Monitor \$ 1,000

Personnel	Type of Appointment	% of Effort	Annual Salary	Proposed Salary	Fringe	Health Insurance	Proposed Amount
Principal Inveystigator (PI)			\$	\$	\$	\$	\$ \$
Co PI							\$
Co PI							\$
Graduate Student							\$
TOTAL SALARY & FRINGE							\$

Equipment

Travel

Materials & Supplies

Consultant

Subcontracts

Other:

Communication

Tuition

Printing

\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____

TOTAL DIRECT COST

\$ _____

Facilities and Administrative (F&A) _____ %

F&A Calculation:		
Total Direct Costs:	\$	_____
Minus Exclusions:		
_____	-\$	_____
_____	-\$	_____
_____	-\$	_____
_____	\$	_____
MTDC	\$	_____

TOTAL F&A

\$ _____

TOTAL PROPOSAL

\$ _____

Estimating the Budget – Simple Budget (Exercise 13)

Personnel	Type of Appoint.	% of Effort	Annual Salary	Proposed Salary	Fringe	Health Insurance	Proposed Amount																																																																
PI	12month	6mths	\$120,000	\$ 60,000	\$11,400	\$ 2,147	\$ 73,547																																																																
Co PI	9 month	4mths	\$ 90,000	\$ 40,000	\$ 7,600	\$ 1,908	\$ 49,508																																																																
Co PI	3 month	1mth	\$ 30,000	\$ 10,000	\$ 1,900	0	\$ 11,900																																																																
Graduate Student		12mths	\$ 24,000	\$ 24,000	0	\$ 1,790	\$ 25,790																																																																
Total Salary & Fringe							\$160,745																																																																
Equipment							\$ 60,000																																																																
Travel							\$ 3,000																																																																
Materials & Supplies							\$ 8,000																																																																
Consultant							\$ 10,000																																																																
Subcontracts							\$100,000																																																																
Other:																																																																							
Communication							\$ 600																																																																
Tuition							\$ 4,113																																																																
Printing							\$ 200																																																																
Total Direct Costs							\$346,658																																																																
<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="8">Facilities and Administrative (F&A) @ 46%</td> </tr> <tr> <td colspan="4">Total Direct Costs</td> <td colspan="4" style="text-align: right;">\$ 346,658</td> </tr> <tr> <td colspan="8">Minus Exclusions:</td> </tr> <tr> <td colspan="4"> Equipment</td> <td colspan="4" style="text-align: right;">(\$ 60,000)</td> </tr> <tr> <td colspan="4"> Subcontracts</td> <td colspan="4" style="text-align: right;">(\$100,000)</td> </tr> <tr> <td colspan="4"> Tuition</td> <td colspan="4" style="text-align: right;">(\$ 4,113)</td> </tr> <tr> <td colspan="4"> Add back in \$25K of subcontract</td> <td colspan="4" style="text-align: right;">\$ 25,000</td> </tr> <tr> <td colspan="4">Modified Total Direct Costs (MTDC)</td> <td colspan="4" style="text-align: right;">\$ 207,545</td> </tr> </table>								Facilities and Administrative (F&A) @ 46%								Total Direct Costs				\$ 346,658				Minus Exclusions:								Equipment				(\$ 60,000)				Subcontracts				(\$100,000)				Tuition				(\$ 4,113)				Add back in \$25K of subcontract				\$ 25,000				Modified Total Direct Costs (MTDC)				\$ 207,545			
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