



**Tennessee**  
**TECH**

# Introduction to Budget Basics



Office of Research and Economic Development  
Center for Faculty Excellence

Nov 1, 2024

# What you should know

- What a good budget can do for your project
- Basic project budget structure
- How to translate project plan into budget
- Potential problem areas
- Basic indirect cost calculation
- Commonly overlooked budget items

# Budget Goal #1 – Support Your Proposal

A good budget shows project is well thought out.

- Follow Regulations – reasonable, allowable, allocable, consistent
- Good steward of funds

How do we show that? Transparency

- Specific expenses
- Linked directly to project activity
- Explain estimated expenses when unavoidable

# Budget Goal #2 – Help Project Management

The budget sets groundwork for working with your grant manager

- Shared understanding
- Accurate and efficient communication

Limits on moving \$ if budget is not accurate

- Deficits a problem
- Surpluses also a problem

Helps ensure compliance

- Planned expenses to meet standards, e.g. student work limits
- Removes temptation

# Example proposal line items

## Weak

Chemicals      \$1000

## Better

Preservatives    \$600

Reagents        \$400

## Best

Preservative compound X,  
750-1000 samples    \$600

Slide prep reagent Y,  
750-1000 samples    \$400

It's okay to duplicate some information. Different reviewers will focus on different elements of the proposal. Make it easy for them, no matter where they look.

# Basic Budget Structure

- **Personnel**

- Effort
- Salary
- Fringe

- **Non-Personnel**

- Equipment
- Travel
- Participant Support
- Other Direct
- Subawards

- **Indirect Costs**

## Definitions

**Equipment**, a.k.a. capital equipment – Durable equipment with high value.

- Federal = >\$10,000
- TTU = >\$5,000

Check grant guidance for funder limit.

**Participant Support** – Direct benefit provided to a person, usually 3<sup>rd</sup> party, from the project. Examples: workshop participants, trainees. GAs working on the project are NOT participants.

# Budget Example – PHS398 (NIH)

Program Director/Principal Investigator (Last, First, Middle):

<b>DETAILED BUDGET FOR INITIAL BUDGET PERIOD DIRECT COSTS ONLY</b>	FROM	THROUGH
--	------	---------

List PERSONNEL (*Applicant organization only*)  
 Use Cal, Acad, or Summer to Enter Months Devoted to Project  
 Enter Dollar Amounts Requested (*omit cents*) for Salary Requested and Fringe Benefits

NAME	ROLE ON PROJECT	Cal. Mnth	Acad. Mnth	Summer Mnth	INST.BASE SALARY	SALARY REQUESTED	FRINGE BENEFITS	TOTAL
	PD/PI							
<b>SUBTOTALS</b> →								

CONSULTANT COSTS	
EQUIPMENT ( <i>Itemize</i> )	
SUPPLIES ( <i>Itemize by category</i> )	
TRAVEL	
INPATIENT CARE COSTS	
OUTPATIENT CARE COSTS	
ALTERATIONS AND RENOVATIONS ( <i>Itemize by category</i> )	
OTHER EXPENSES ( <i>Itemize by category</i> )	

CONSORTIUM/CONTRACTUAL COSTS	DIRECT COSTS	
<b>SUBTOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD</b> ( <i>Item 7a, Face Page</i> )		<b>\$</b>
CONSORTIUM/CONTRACTUAL COSTS	FACILITIES AND ADMINISTRATIVE COSTS	
<b>TOTAL DIRECT COSTS FOR INITIAL BUDGET PERIOD</b>		<b>\$</b>



# Budget Example – NSF1030 (NSF)

SUMMARY PROPOSAL BUDGET						FOR NSF USE ONLY				
ORGANIZATION The Research Foundation for SUNY, University at Buffalo						PROPOSAL NO.	DURATION (MONTHS)			
							Proposed	Granted		
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR 00						AWARD NO.				
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)						NSF Funded Person-mos.		Funds Requested By Proposer	Funds Granted by NSF (If Different)	
			CAL	ACAD	SUMR		\$	\$		
1.	PI									
2.										
3.										
4.										
5.										
6.	( ) OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)									
7.	( 1 ) TOTAL SENIOR PERSONNEL (1-6)									
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)										
1.	( ) POST DOCTORAL ASSOCIATES									
2.	( ) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)									
3.	( ) GRADUATE STUDENTS									
4.	( ) UNDERGRADUATE STUDENTS									
5.	( ) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)									
6.	( ) OTHER									
TOTAL SALARIES AND WAGES (A+B)										
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)						% Fac	% Staff	% Summer	% Grad	% Ugrad
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A+B+C)										
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.) See budget justification										
TOTAL EQUIPMENT										
E. TRAVEL						1. DOMESTIC (INCL. U.S. POSSESSIONS)				
						2. FOREIGN				
F. PARTICIPANT SUPPORT COSTS										
1. STIPENDS _____										
2. TRAVEL _____										
3. SUBSISTENCE _____										
4. OTHER _____										
( ) TOTAL PARTICIPANT COSTS										
G. OTHER DIRECT COSTS										
1. MATERIALS AND SUPPLIES										
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION										
3. CONSULTANT SERVICES										
4. COMPUTER SERVICES										
5. SUBAWARDS										
6. OTHER _____ Tuition _____ Other _____										
TOTAL OTHER DIRECT COSTS										
H. TOTAL DIRECT COSTS (A THROUGH G)										
I. INDIRECT COSTS (F&A) (SPECIFY RATE AND BASE)										
	Base	Amount	Rate							
	MTDC		FALSE							
TOTAL INDIRECT COSTS (F&A)										
J. TOTAL DIRECT AND INDIRECT COSTS (H+I)										
K. RESIDUAL FUNDS (IF FOR FURTHER SUPPORT OF CURRENT PROJECTS SEE GPG II.D.7.)										
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)							\$	\$		
M. COST SHARING: PROPOSED LEVEL \$						AGREED LEVEL IF DIFFERENT \$				
PI/PD TYPED NAME & SIGNATURE* 00						DATE	FOR NSF USE ONLY			
						10/17/2024	INDIRECT COST RATE VERIFICATION			
INST. REP. TYPED NAME & SIGNATURE* Grant and Contract Administrator						DATE	Date Checked	Date of Rate Sheet	Initials - ORG	
						10/17/2024				

# Budget With Your Project Plan

Building from your project plan will help you:

- Identify all potential expenses
  - Factor in unexpected costs (identify where it can go wrong)
  - Draft your budget justification/narrative as you go
  - Ensure project plan, budget and budget narrative remain aligned
- 
- **DO NOT procrastinate the budget!**



# Lay Out Project Plan

Think the project through step-wise.

- Specific tasks/steps
- Timeline of tasks

Assign budget costs to each step.

- Personnel (effort allocated at the time of the task)
- Non-Personnel



# Recommendation: Gantt Chart

## Benefits of a Gantt Chart

### Planning

- Responsibilities
- Deadlines
- Resources

### Identify dependencies

- Prerequisite tasks
- Critical time windows

### Keeps planning realistic

### Project management and tracking

Free Excel templates:

<https://create.microsoft.com/en-us/templates/gantt-charts>

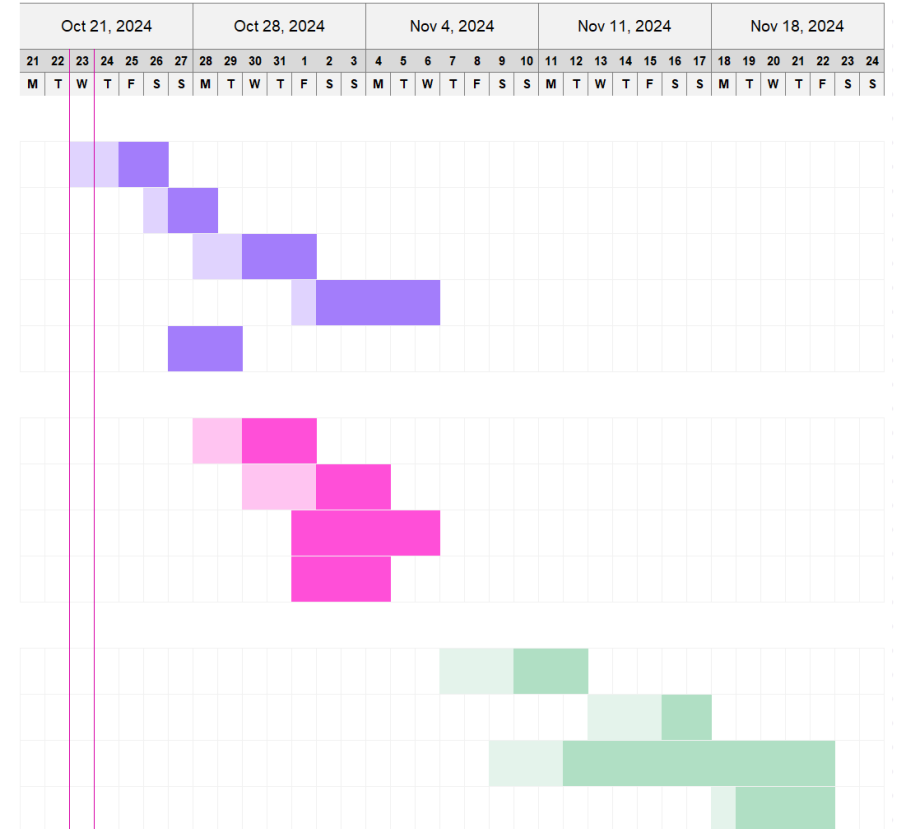
## Sample project

Project lead

TASK	ASSIGNED TO	PROGRESS	START	END
<b>Initiation</b>				
Define goals	Gokce Aslan	50%	10/23/24	10/26/24
Conduct studies	Hayden Cook	60%	10/26/24	10/28/24
Establish comms	Jens Martensson	50%	10/28/24	11/1/24
Develop charter	Nuria Acevedo	25%	11/1/24	11/6/24
Set up team	Olivia Wilson		10/27/24	10/29/24
<b>Planning and design</b>				
Create schedule	Gokce Aslan	50%	10/28/24	11/1/24
Identify deliverables	Hayden Cook	50%	10/30/24	11/4/24
Define scope	Nuria Acevedo		11/1/24	11/6/24
Identify risks	Olivia Wilson		11/1/24	11/4/24
<b>Execution</b>				
Execute tasks	Gokce Aslan	50%	11/7/24	11/12/24
Monitor progress	Hayden Cook	60%	11/13/24	11/17/24
Provide updates	Nuria Acevedo	25%	11/9/24	11/22/24
Testing and validation	Olivia Wilson	25%	11/18/24	11/22/24

Project start: **Wed, 10/23/2024**

Display week: **1**



# Effort and Salary

Effort can be tracked in a number of ways, depending on the requirements of the call.

- Course Release
- % effort
- Months
- Hours

Most common at TTU are release or months.

9 Month Appointment (Example)			
Course Release Hours	% effort	Months	Hours
1	3.33%	0.3	48.75
2	6.67%	0.6	97.5
3	10.00%	0.9	146.25
4	13.33%	1.2	195
5	16.67%	1.5	243.75
6	20.00%	1.8	292.5
9	30.00%	2.7	438.75
12	40.00%	3.6	585
15	50.00%	4.5	731.25
18	60.00%	5.4	877.5
Course Release Hours	% effort	Months	Hours
1.67	5.56%	0.5	81.25
3.33	11.11%	1	162.5
5.00	16.67%	1.5	243.75
6.67	22.22%	2	325
8.33	27.78%	2.5	406.25
10.00	33.33%	3	487.5

# Effort and Salary (Cont'd)

**Tennessee Tech includes 3% salary inflation per year.**

## **9 Month Appointment**

- 9 Academic + 3 Summer months
- Academic terms
  - Fall Aug 15 to Dec 31
  - Spring Jan 1 to May 15
  - Summer May 16-Aug 14

## **12 Month Appointment**

- 12 Calendar months

# Travel

Use **GSA (General Services Administration) rates** for:

- Lodging
- Per diem

GSA rates are regional, so you will need to search.

Use **IRS rate** for:

- Mileage

Use reasonable estimate for:

- Airfare
- Taxi/Ride Share

When the destination is unknown, e.g. future conference location, use a reasonable proxy location for estimate.

## Example

IAFN Conference for PI, CO, and PC								
	YR	Conference (IAFN) Fees	Airfare	Hotel \$261 x3	Hotel parking	Airport parking	Meals	Total
	2024-2025	\$ 690	\$ 650	\$ 783	\$ 147	\$ 75	\$ 198	<b>\$ 7,628</b>
Early Reg	*2025-2026	\$ 560	\$ 650	\$ 783	\$ 147	\$ 75	\$ 198	<b>\$ 7,238</b>
Disc	*2026-2027	\$ 560	\$ 650	\$ 783	\$ 147	\$ 75	\$ 198	<b>\$ 7,238</b>

# Indirect Costs

Costs which **cannot be identified specifically with a particular project or program**, but are costs incurred in providing services and the operation and maintenance of facilities. Indirect costs go by many names:

- IDC
- F&A (Facilities and Administration)
- Overhead

## Examples of Indirect Costs:

- Utilities
- Basic lab supplies (paper towels, soap, ordinary glassware, etc.)
- Normal admin support
- Central office support (HR, Purchasing, ORED, etc.)
- Facilities maintenance

### EXCEPTION

Costs which are ordinarily indirect \*may\* qualify as direct costs if they are:

1. Integral to the project
2. Project-specific
3. Included in approved budget
4. Not also recovered via F&A

Examples:

- Project manager effort 10% or greater
- Dedicated computer resources
- Mass mailings



# Indirect Cost Rates

Indirect cost is calculated by Planning and Finance and negotiated with a federal agency.

Indirect cost rates are sometimes set by the program or agency, superseding the negotiated rate. Foundations often require 10% or disallow indirect costs entirely.

## **Federal rates:**

42% on-campus

11.5% off-campus

## **Common fixed rates at TTU:**

Federal training grants 8%

State of Tennessee 15%

CESU\* 17.5%

\*Collaborative Environmental Studies Unit

# Indirect Cost Calculation

Direct cost \* IDC rate = Indirect cost

However, certain direct costs are (usually) excluded from the calculation.

- Capital Equipment (\$10,000+)
- Subawards over \$50,000
- Participant Support

Those expenses must be subtracted from before calculating indirect cost. The modified total is referred to as MTDC (Modified Total Direct Cost).

**Office of Sponsored Programs (OSP)** and **Engineering Research Office (ERO)** are available to answer questions and assist with IDC calculation.

# Don't Forget!

## Management/Admin Tasks

- Hiring/scheduling students
- Technical/progress reports
- IRB/IACUC process
- Project Manager?  
✓ 10+% admin effort

## Academic Production

- Paper writing
- Conference presentation

## Facilities Upgrades

- Equipment installation
- Hazmat storage or handling

## Post-Project Costs

- Data storage
- Sample storage
- Hazmat disposal



# PI and Grant Manager Responsibilities

(Related to the Budget)

## PI

- Reviews financial information for accuracy.
- Expends and manages funds in conformity with the approved budget, including for the subaward(s).
- Monitors the budget to eliminate account overages and overdrafts alongside the project bookkeeper.
- Works with funding agency Program Officer to rebudget, if needed.
- Monitors cost share requirements and fiscal documentation.

## Grant Manager

- Assists the Principal Investigator with budget monitoring to ensure expenditures are authorized.
- Reviews invoices and expenditures to ensure funds are disbursed for the proposed expenditures to ensure compliance with university policy and agency regulations.
- Audits and reconciles award, invoices and expenses for budget alignment.
- Assists with travel claims, purchase orders, processing of student timesheets and any other transaction to be housed in the award.
- Communicates with the Principal Investigator and university staff to resolve budget management issues.



**Questions**

**Comments**

**Discussion**

