



# Introductory Budget Training

FY 2026 Revision

# Learning Goals



Understand the sources and uses of funding for the NRAO and GBO



Understand how resources are allocated and the impact of managerial decisions on financial results



Understand your role in the budget cycle and who to contact with questions



# Who's Who: Your Budget Team

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# The Basics

## **FFRDCs, Funding Sources, and the Budget Cycle**

# How we Operate: FFRDCs and You

The NRAO and GBO are Federally Funded Research and Development Centers (FFRDCs).

FFRDCs are established by the US Government to provide specialized expertise for addressing long-term research and development needs. They are:

- Independent entities (operations, personnel, and results not managed directly by the government)
- Managed by non-governmental organizations (often non-profits, universities, or firms)
- Funded through sponsorship by a government agency (such as the NSF)

# Who Pays: Our Sources of Funding

**1. The National Science Foundation (NSF) is our largest source of funding.** The NRAO and GBO are funded through contracts called Cooperative Service Agreements (CSAs) with our management company, AUI.

- CSA-A = ALMA Operations and JAO Partnership
- CSA-V = VLA, VLBA, and CDL Operations
- CSA-N2 = ngVLA Design & Development
- CA-P = ngVLA Prototype Antenna
- CSA-G = Green Bank Observatory
- CSA-S = Spectrum Management

**2. Grants and Work for Others (WFO) are outside funding for a range of activities, including:**

- Conducting research or developing new technology (RADAR)
- Supporting specific initiatives (WiE)
- Use of NRAO or GBO instruments (USNO)
- Use of patented technology (Reflectionless Filters)

# There's Always a Catch: Sources of Uncertainty

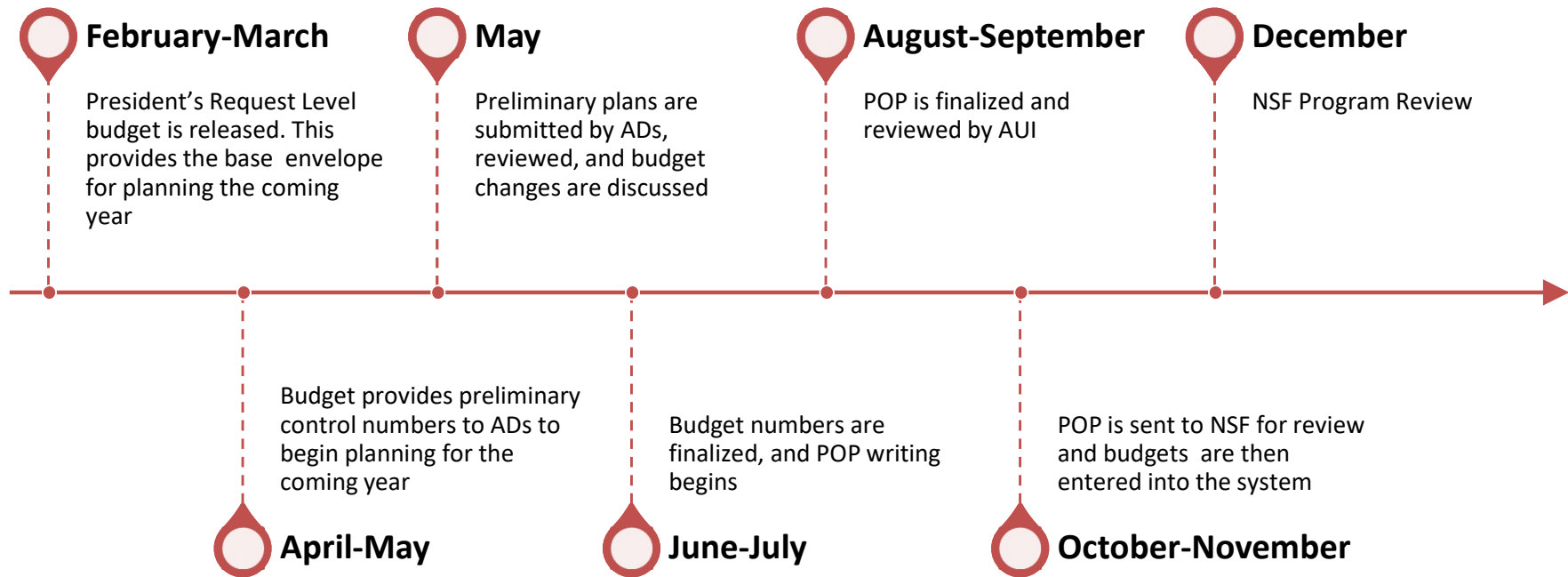
**Each year, the amount we have available to spend relies on several major factors:**

**"THE MAN"** – NSF funding, and therefore NRAO and GBO funding, is part of the annual federal budget process. Executive and legislative priorities change from year to year and can result in delays, last-minute adjustments, and significant departures from prior years.

NSF – provides an initial estimate of what resources they intend to allocate. These estimates are not a guarantee, and actual support may be higher or lower than expectation. Therefore, the entire fiscal year budget is not available for use on the first day of the fiscal year (October 1).

Our (your) choices – a portion of prior year underspends and revenue from outside contracts is held in reserve and used to supplement the current year. Chronic underspend can signal that we require fewer resources. In general, it is best to spend your full budget each year...WITHOUT going over.

# Mark Your Calendars: Planning for the Year Ahead



**What is the POP?** The Program Operating Plan (POP) is the formal documentation of plans, specific milestones, and budget for a given fiscal year. It is submitted to NSF at the beginning of each fiscal year and provides the basis for quarterly reporting to NSF throughout the year.

To support POP planning and other budget-related activities, managers should develop an understanding of their team's minimum resource requirements, any wish list items, and how each may change over 1-3 years.

What's that budget line?

## Planning for Labor and Non-Labor Expenses

# Burdens: Fringe & Overhead Rates

Type	Rate	Description
Adjusted Salary	83.70%	Estimated by NRAO; assumes 1,741 hours worked out of 2,080 hours each year
Fringe Benefits	59.30%	Estimated by AUI and approved by NSF; includes PTO, 401a, Health/Dental Insurance, etc.
NRAO Overhead (NA)	25.75%	Estimated by AUI and approved by NSF; includes cost of NRAO administration and NA facilities
AUI Overhead	6.60%	Estimated by AUI and approved by NSF; includes AUI general and administrative costs

# Employee Labor Costs

EVERY current employee and approved open position is included in the POP budget. Base salaries are adjusted to account for estimated actual hours worked of 1,741 out of 2,080.

Example	
Base Salary	90,000
Work Rate Adjustment	(14,668)
<b>Adjusted Base Salary @ 83.70%</b>	<b>75,332</b>
NA Fringe Benefits @ 59.30%	44,672
<b>S&amp;B Budget</b>	<b>120,004</b>
NRAO Overhead @ 25.75%	30,901
AUI Overhead @ 6.60%	9,960
<b>Overhead Charges</b>	<b>40,861</b>
<b>Total budgeted cost</b>	<b>160,865</b>

\$90k → \$161k

Employee wages  
and benefits are  
our largest  
budget line!

# Managing Employee Labor Costs

- Staff positions must be fully funded before recruitment begins
- Reorganization of employees should be budget neutral (per CSA) or fully funded and approved by your AD prior to implementing changes
- Budgets are adjusted for mid-year raises and promotions after HR processes are complete
- **ENCOURAGE EMPLOYEES TO USE THEIR VACATION!** PTO is accrued to a leave pool as it is earned and depleted when an employee uses vacation hours. When employees don't take vacation, their hours are charged to a worked project, resulting in unanticipated charges and budget overrun.

Scenario	Base Salary	S&B Budget	S&B Actual	Variance \$ over /	Variance % over /
Vacation Hours Used: 192	100,000	132,668	132,668	-	0.00%
Vacation Hours Used: 112	100,000	132,668	138,764	6,096	4.60%

# Non-Labor Expenses

<b>Example 1: Travel &amp; General M&amp;S</b>	
Expense Amount	500
NRAO Overhead	129
AUI Overhead	42
<b>Total Expense</b>	<b>671</b>

<b>Example 2: Test Equipment <math>\geq</math>\$25k</b>	
Expense Amount	50,000
NRAO Overhead	-
AUI Overhead	-
<b>Total Expense</b>	<b>50,000</b>

<b>Example 3: Sub-Contract <math>\geq</math>\$50k</b>	
Expense Amount	50,000
NRAO Overhead	12,875
AUI Overhead	4,150
<b>Subtotal: First \$50k</b>	<b>67,025</b>
Expense Amount	50,000
NRAO Overhead	-
AUI Overhead	-
<b>Subtotal: Amt <math>&gt;</math>\$50k</b>	<b>50,000</b>
<b>Total Expense</b>	<b>117,025</b>

# Proposals and the Budget Template



All new projects and activities must have an associated budget which:

- is built in the most recent version of the Budget Proposal Template
- has estimates supported by source documentation



Contact PMD to initiate the proposal workflow. PMD will provide a standard set of control documents, including the Proposal Template used for calculating the total cost of the project



Your division's budget manager should be notified of any new proposals before they are submitted for final approval. Your budget manager can also assist with a review of the Proposal Template and provide feedback



**IMPORTANT:** NRAO is required to notify NSF of all applications for grants. These requests must be reviewed by CAP and AUI. Please allow time for all reviews and corrections to be resolved prior to your submission deadlines.

Questions?

# Wrap-Up

Understand the sources and uses of funding for the NRAO and GBO

- **Sources:**

- NSF funding awarded under Cooperative Service Agreements (CSAs)
- Grants/Work for Others

- **Uses:**

- Operating costs
- Projects
- Research & Development

Understand how resources are allocated and the impact of managerial decisions on financial results

- Utilize the **proposal template** when estimating project costs
- Carefully **review all details before approving** timecards, expense reports, and requisitions
- Misclassification of expenses or budgeted costs should be **corrected as soon as possible**
- Encourage your direct reports to **utilize vacation hours**

Understand your role in the budget cycle and who to contact with questions

- The **POP** is the budget backbone of each fiscal year; managers should develop an understanding of what the must-have and nice-to-have items are for their areas of responsibility
- **Budget** – ad hoc reporting needs, data requests, forecasting, and analysis support
- **MIS** – recurring or standardized reporting needs
- **Fiscal** – questions about expense account classification
- **CAP** – questions about externally funded projects (grants and work for others), procurement, and contracts
- **PMD** – proposal development for new projects, questions related to program management



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