

Proposal Budget Handbook

Prepared by the Sponsored Programs Office (SPO)

Table of Contents

Getting Started	1
Proposal Budget Definition	1
General Guidelines/Cost Accounting Standards	2
Office of Management and Budget – Uniform Guidance	2
UC Davis Charging Practices.....	2
Specific Sponsor Rules	3
Federal Sponsors.....	3
State of California Sponsors.....	4
Private Sponsors	4
Department and School/College Specific Rules	4
Plan/Outline the Budget	5
Discuss the Budget with the Principal Investigator (PI).....	5
Review Sponsor Guidelines	5
Determine the Project Period	5
Use Current Templates and Rates	6
Cost Sharing	6
Prepare the Budget.....	7
Direct Costs.....	7
Direct Cost Categories	9
Personnel	9
Equipment and Capital Assets	13
Travel	16
Participant Support Costs	17
Other Direct Costs.....	19
Facilities and Administrative (F&A)/Indirect Costs.....	26
Determine the F&A Rate.....	26
Determine the Indirect Cost Base.....	27
Calculate the Indirect Costs	29

Calculate the Total Project Costs	30
Write the Budget Justification.....	30
Format and Compile the Justification	31
Examples of Budget Justification Language	31
Resources.....	35

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Getting Started

Per [UC policy](#) (*jumps below*), all proposals for extramural funding (*exceptions below*) must be submitted through the UC Davis Sponsored Programs Office (SPO), which also requires that you include a detailed internal budget, made with an [OR Budget Template](#), even if the sponsor doesn't require a detailed budget.

- Exceptions:
 - Limited submission pre-proposals
 - Letters of Intent (LOIs) or pre-proposals that do not require:
 - A budget
 - Institutional signature
 - Agreement to terms & conditions

Note: In addition to the budget, a budget justification and scope of work is also required to be submitted to SPO.

Additional budget-related resources:

- SPO's [Budget Development](#) webpage
- SPO's [Learn: Proposal Budgeting](#) webpage

Relevant Policies:

- [Requirement to Submit Proposals and to Receive Awards for Grants and Contracts through the University](#)
- [CGM 1-500: Principal Investigator Guidelines](#)
- [CGM 2-200: Solicitation Authority](#)
- [CGM 10-300: Contract and Grant Administration: Responsibilities and Duties](#)
- [CGM 13-700: Campus Contract and Grant Authority](#)
- [DA 2569: To Solicit and Accept or Execute Certain Extramural Grants and Contracts](#)

Proposal Budget Definition

A budget is a financial proposal that reflects the work proposed.

- It outlines the expected project costs in detail and should mirror the project description.
- It is presented as a categorical list of anticipated project costs representing the researcher's **best estimate** of the funds needed to support the proposed work.
- It is a flexible tool to help the department administrator and scientific team plan for the project and understand what can and cannot be accomplished with the available funding.

Sponsors utilize the budget during the technical review of the project to evaluate the reasonability of the project costs.

- To ensure enough funding will be available to complete the scope of work, prepare a detailed budget even when sponsors only require modular or lump sum budgets.
 - This is especially beneficial if the sponsor requests additional details during the review process or at the just-in-time (JIT) phase, requiring a short-turn-around time.

This separate resource may be helpful: [Key Terms](#) (PDF)

General Guidelines/Cost Accounting Standards

Researchers at UC Davis have a variety of cost accounting standards they must adhere to when spending extramural funds, including:

- [Office of Management and Budget \(OMB\) – Uniform Guidance](#) (*external link*)
- [UC Davis Charging Practices](#) (*jump down the page*)

Office of Management and Budget – Uniform Guidance

Because the majority of UC Davis' research funding comes from the federal government, most of our cost accounting standards are based on federal regulations.

All federal sponsor policies that govern grant management (such as the NIH Grants Policy Statement) are based on [OMB Uniform Guidance](#), which establishes principles for determining allowability of costs applicable to grants, contracts and other agreements with educational.

Per Uniform Guidance, all costs in the budget should be **allocable**, **reasonable** and **allowable**.

1. **Allocable** costs are clearly associated with the particular project.
 - For example, chemicals purchased for use on a specific project should only benefit that project.
 - Restocking general chemical supplies used for a variety of purposes would benefit many projects and may not be easily allocated to individual projects.
 - Consider whether the cost will be incurred solely to advance the work under the sponsored agreement.
 - For example, travel costs incurred by the Principal Investigator to obtain data on the topic of the research would generally qualify, but travel costs to attend a conference on a topic not related to the research would not.
2. **Reasonable** costs would generally be accepted as necessary per a “prudent” person’s review.
 - For example, the purchase of a laptop computer for field research by a graduate student researcher on the project would generally be accepted as reasonable, while the purchase of a laptop for non-project related coursework by a graduate student researcher would not.
3. **Allowable** costs are permitted by institutional and sponsor regulations and are consistent with UC Davis charging practices.
 - There are some costs which are specifically prohibited from being charged to a sponsored project, such as alcoholic beverages, advertising, lobbying or entertainment charges. These are known as "unallowable" costs.
 - It is important to ensure that a cost is allowable before including it in a proposal.

UC Davis Charging Practices

UC Davis Charging Practices take into account the rules of our largest sponsor, the federal government, and the policies and procedures set forth in the UC Research Policy Analysis and Coordination (RPAC) [Contract and Grant Manual](#).

Cost Accounting Standards Board Areas of Consistency

The federal [Cost Accounting Standards Board \(CASB\)](#) has the following four [cost accounting standards](#) applicable to UC Davis which help to clarify what costs must be treated consistently.

- **Estimating, Accumulating and Reporting Costs:**
In order to permit comparisons of estimates to actual costs, the expenditure classifications used to estimate costs in contract and grant proposals must be consistent with those used to accumulate and report costs.
- **Allocating Costs Incurred for the Same Purpose:**
Costs incurred for the same purpose, in like circumstances, must be treated consistently as either direct or indirect costs.
- **Accounting for Unallowable Costs:**
Unallowable costs must be identified and accounted for independently from allowable costs.
- **Cost Accounting Period:**
Consistent use of the same cost accounting period for purposes of estimating, accumulating and reporting costs is required. At UC Davis, this is the Fiscal Year (FY) which occurs July 1- June 30.

UC Contracts and Grants Manual, Chapter 7

[UC Contracts and Grants Manual, Chapter 7](#) provides details about UC's policies and procedures related to budgets and expenditures. This chapter includes details about:

- What costs are allowable
- Justifying and documenting expenditures
- Cost transfers
- Fixed price agreements
- Service facilities

Many of these are similar to the federal guidelines. However, it is important to read through these in order to identify areas where UC's policies differ from (and are more restrictive than) the federal guidelines.

Specific Sponsor Rules

In general, each sponsor agency or entity has specific guidelines about how the funding they provide can be spent. Below is general information based on the type of sponsor providing funding:

- [Federal](#) (*immediately below*)
- [State of California](#)
- [Private](#)

Federal Sponsors

Many federal sponsors, such as the National Science Foundation (NSF) and the United States Department of Agriculture (USDA), have guidelines under the [Federal Demonstration Partnership \(FDP\)](#), of which UC Davis is a [member](#).

- The FDP is an association of federal agencies, academic research institutions and research policy organizations working to streamline the administration of federally sponsored research.

In addition to FDP guidelines, each agency often has additional restrictions. These are detailed in specific funding announcements and sponsor specific general guidelines.

- Example: NSF funding announcements typically state, "Proposals submitted in response to this program announcement should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide."

State of California Sponsors

[Assembly Bill 20 \(AB20\)](#) allows for model contract terms for research, training and public service projects funded by State of California agencies and performed by the UC and California State University systems. However, not all State agencies have negotiated a model agreement.

- Check each funding announcement and funding agency website to determine whether there are any restrictions and consult with the Sponsored Programs Office if terms and conditions differ from AB20.
- Keep in mind that if the dollars are federal flow-through (meaning some or all project funding is federal), then both federal and state agency guidelines apply.

Private Sponsors

Private sponsors often have the most restrictions on how money can be spent, especially concerning indirect costs (aka F&A or overhead costs). Because not all private sponsors list their costing restrictions in their funding announcements, review the sponsor's website for any other guidelines.

- With any sponsor, if you are unclear about whether a cost is allowed, call the contact person listed in the funding announcement or on the sponsor's funding website.

Department and School/College Specific Rules

Some UC Davis departments and schools/colleges have additional rules that must be followed when preparing a proposal budget.

- For example, there may be requirements regarding effort commitment and cost sharing.

Consult with the contract and grant resources at the department and school/college level to gain an understanding of any rules that must be adhered to in addition to the rules discussed above.

Plan/Outline the Budget

Discuss the Budget with the Principal Investigator (PI)

Learn more from the PI about the proposed project before beginning budget development.

- Make sure to obtain any materials needed to begin the budget development process, such as the funding announcement, any other sponsor guidelines and an outline of the proposed project.
- A checklist, such as the Sponsored Programs Office's [New Proposal Checklist](#) can be helpful in organizing proposal preparation and budget development.

As the PI provides clarity regarding potential projects costs:

- Begin an outline of the budget categories items fall under
- Develop a list of specific budget line items
 - This list should include all the items and personnel the researcher will need to complete the project.

Review Sponsor Guidelines

Read the funding opportunity announcement and follow links to program guidelines and/or general sponsor rules to make certain the budgeted expenses are allowable.

- It may be helpful to complete the [Call for Proposals Checklist](#) while performing this step. This tool helps identify sponsor restrictions to pay special attention to.
 - For example, certain expenses **may not be allowed**, others **may be required** and some **may have limits**.



Questions to consider while reviewing the sponsor guidelines:

- Is there a maximum amount of funds that can be requested from the sponsor?
 - If so, is it a total cost limitation (direct plus indirect costs) or a direct cost limitation?
- Are there costs that must be charged, such as travel to an annual meeting?
- Are there costs that cannot be charged, such as PI salary?

Determine the Project Period

The project period is important as it determines which Composite Benefit ("fringe" employee benefit) rates, Facilities and Administration (F&A)/indirect cost rates and salary amounts to use.

- Project periods may be specified in the solicitation (earliest start date), the PI may have a specific project period in mind (season or event dependent) or there may be start and end dates specified by the sponsor.
 - Usually, the start date is within six to nine months of submission. However, this varies greatly based on the sponsor and funding opportunity.



When using the latest version of the [OR Budget Templates](#), the latest Composite Benefit and F&A rates are auto-populated based on project periods.

Use Current Templates and Rates

It is important to use the current templates and rates when preparing proposal budgets. The current F&A and Fringe Benefit Rates can be found on the [Sponsored Programs Office website](#).

- The [OR Budget Templates](#) auto-populate the current rates and tuition fees.
 - Always download a new version before starting your budget to ensure the latest rates and fees are applied.
 - View the Budget Sheet FAQs for instructions on using the templates.

If a sponsor requires a specialized budget or cost/business proposal, contact the Sponsored Programs Office at proposals@ucdavis.edu to request guidance and samples.

Cost Sharing

Cost sharing is the contribution by someone other than the funding sponsor of resources, often money, towards the completion of a project.

- Cost sharing may be personnel effort, money or an item or service and may be provided in the form of **cash matching** or be **in-kind**.
 - In-kind contributions must be able to be valued but do not appear on the financial ledgers.

UC Davis **strongly discourages voluntary cost sharing**, or cost sharing that is not required.

- When the university provides cost share, it is essentially subsidizing the research. This is why it is not appropriate to cost share on most government contracts/grants or in proposals to for-profit companies.
- Always keep in mind that if cost sharing is committed and the proposal is awarded, that cost sharing is now mandatory as part of the award agreement.

Ensure cost sharing is appropriate before including it in the budget.

- Sponsor guidelines will indicate if cost sharing is allowed or even required.
- [UC Policy: APM – 020](#) states that UC must recover all direct and indirect costs from extramural sponsors.
- Never cost share if the department or dean's office does not allow it or cannot afford the commitment.

When submitting a proposal with cost sharing that is not comprised of investigator effort, include a letter or memo from the party that has authority to commit to the cost share, such as the dean or department chair.

- Authorization on the Cayuse SP Internal Processing Form (IPF) provides the necessary approvals for cost-shared **effort** (time spent on a project) only, thus a separate letter is required for all other cost-share.
- If you are unsure who has the authority to commit to a cost share, contact proposals@ucdavis.edu for assistance in making this determination.

The Sponsored Programs Office has prepared [guidance for submitting a proposal that involves cost sharing](#).

- More information about cost sharing is located at [Chapter 5 of the UC Contract and Grant Manual](#) and at the Contract and Grant Accounting [Cost Share Application](#) page.

Prepare the Budget

Direct Costs

Direct costs:

- Benefit the specific project for which the budget is written
- Are necessary to complete the project, and
- Are charged or recharged directly to the sponsored project.

Direct costs on a project will vary according to the needs of the actual program or project.

Estimating Costs

If you are unable to enter an exact amount for a budget line item, project the cost using generally accepted cost estimation methods.

- Depending on the cost category, there may be multiple approaches, such as:
 - Review historical costs for similar projects.
 - Obtain comparable current cost information.
 - Useful sources: the internet, catalogues and vendor quotes
 - Obtain a written copy of what the quote includes and verify that all the costs are included.
 - If the project includes a recharge service performed on campus, obtain the approved campus recharge rates.
- Other methods for estimating costs are appropriate so long as the process is logical, can be explained to someone else and can be documented.

Escalating Costs

When entering costs, remember that they increase over time so consider including a modest escalation by project period for direct charges.

- The [OR Budget Templates](#) include an option for escalating direct costs.
- Read the sponsor and program guidelines before including escalations to ensure the sponsor does not limit or prohibit escalations.
- To escalate costs is consistent with the University's cost principles and with the University's policy of recovering all costs of conducting sponsored projects.
 - Escalation helps to ensure that the project receives adequate funding.
- Use a rate between 3% to 5% when escalating most direct costs. Two exceptions:
 - Tuition and fees may be escalated up to 10% per year, and
 - Subawardees may use their own institution's guidelines when including escalations on their own costs.

- Do not add any additional escalations to subawards beyond what the partnering organization indicates.

Split Rates

The [OR Budget Templates](#) auto-calculate split rates, which occur when a project period spans two fiscal periods (academic years that run from July 1st to June 30th of the following year) that each have a differing indirect cost rates.

If you need to calculate them manually, this is how you would do it for a 12-month period of performance:

1. Project Period Costs/# of project period months [i.e, 12 for annual project period] = **One month of costs**
 - a. If the period of performance were shorter, say, 6 months, then you would divide by 6.
2. Months before end of Fiscal Year (FY) (before June 30th) = **Months at Rate 1**
3. **One Month of Costs** * **Months at Rate 1** * Rate 1 = **F&A costs at Rate 1**
4. Months after start of next FY (after July 1st) = **Months at Rate 2**
5. **One Month of Costs** * **Months at Rate 2** * Rate 2 = **F&A costs at Rate 2**
6. **F&A costs at Rate 1** + **F&A costs at Rate 2** = Cost for Project Year (PY)

Shortcut: $(\text{Project Period Costs} / \# \text{ of project period months} * \text{Months at Rate 1} * \text{Rate 1}) + (\text{Project Period Costs} / \# \text{ of project period months} * \text{Months at Rate 2} * \text{Rate 2}) = \text{F\&A costs for PY}$

Example:

You are working on a budget for a research project with a start date of September 1, 2023 and end date of August 31, 2024. The appropriate F&A Rate is 60% for FY 2023-2024 and 61% for FY 2024-2025 with an MTDC Base. The MTDC is \$300,000.

1. Determine one month of costs.
 - $\$300,000/12 = \$25,000$
2. Determine the # of months at the first rate.
 - How many months occur before 6/30/2024? **10**
3. Calculate the F&A Costs at Rate 1.
 - $\$25,000 * 10 * 0.6 \text{ [for 60\%]} = \$150,000$
4. Determine the # of months at the second rate.
 - How many months occur on/after 7/1/2024? **2**
5. Calculate the F&A Costs at Rate 2.
 - $\$25,000 * 2 * 0.61 \text{ [for 61\%]} = \$30,500$
6. Calculate the F&A costs at both rates.
 - $\$150,000 + 30,500 = \$180,500$

Shortcut: $(\$300,000/12 * 10 * 0.6) + (300,000/12 * 2 * 0.61) = \$180,500$

Direct Cost Categories

Personnel

A major component of most budgets is personnel. The **Personnel** budget category (salaries, effort and benefits) is designed to account for UC Davis faculty or staff **ONLY**.

- Non-UC Davis employees will be listed in their **subaward** budget or in the **consultant** section of the UC Davis budget, as appropriate.

Determine the Personnel Needs

Senior/key personnel are the “non-replaceable” expertise on the project. They are usually faculty-level investigators, but may also include others at the discretion of the Principal Investigator (PI). Common types of senior personnel include the following:

- **PIs or Project Directors** will design and conduct the project and have overall responsibility for its compliance and its success.
- **Co-PIs often** have equal administrative authority with the PI. Sponsoring agencies have varying guidelines for the number of PIs.
 - For example, NSF allows one overall PI plus four co-PIs while NIH will allow multiple PIs but no co-PIs.
- **Co-Investigators** are senior personnel not in an official Co-PI or PI role. This role denotes a lesser administrative or management role for the project but is not scientifically diminutive.
- **Consultants** offer advice, but do not have responsibility for completing the scope of work of a project and are often referred to as providing a “brains and briefcase” contribution.
 - A UC employee **should not** be listed as a consultant on a proposal being submitted from UC Davis.
 - See the [Consultants](#) section (below in this document) for more information.
- **Unpaid collaborators** may be integral to the project and listed as senior personnel or may offer occasional advice.
 - It is important to find out their role on the project before determining which way to classify.
 - If a non-paid collaborator will be senior personnel and is employed outside of UC Davis, obtain a letter from their university or institution approving the collaboration.
 - This allows their institution to record committed effort and approve use of facilities for the project.

More details are available on the [Senior/Key Personnel Descriptions](#) table prepared by the Sponsored Programs Office.

Calculate Salaries and Wages

Use actual salaries to calculate the salary costs if possible.

- This information can be provided by staff that process payrolls or that manage department accounts.
- If the position is not filled, use the relevant salary listed on the appropriate salary scale:

- [UCOP Academic Salary Scales](#)
- [UC Davis Staff Salary Scales](#)
- When listing the salary of an employee use the **Institutional Base Salary (IBS)** unless otherwise indicated by the sponsor. This is regular compensation (not including benefits, bonuses, overtime, or stipends, etc.) that the University provides for an individual in a given classification.

Determine whether there are any known upcoming wage adjustments or merit increases for that person or classification, such as a new collective bargaining agreement signed or upcoming promotion that would increase wages during the project period.

- If there is not a specific increase known, some sponsors will allow the UCOP standard 3 to 5% escalation rate.

Annualizing Salary

When using the [OR Budget Templates](#), there is no need to annualize salary except to determine whether an individual's salary will exceed a sponsor-imposed salary cap, such as the National Institutes of Health (NIH) cap.

- Annualized salary is a person's salary over 12 months and is different than a faculty member's 9- or 11-month appointment. If the person has a 12-month appointment their base salary is the same as their annualized salary and no calculation is needed.
- GSRs are hired on a 12/12 calendar year.

Appointment Type	Appointment Months	Summer Months
Academic Year	9	0 to 3
Fiscal Year	11	Up to 1
Calendar Year	12	0 (included in appointment months)

Calculate annualized salary as follows:

1. Calculate a person's one-month salary:

Salary / # of Appointment Months = One Month Salary

Example: \$100,000 / 9 = \$11,111

2. Multiply the one-month salary by 12 months:

One Month Salary x 12 = Annualized Salary

Example: \$11,111 x 12 = \$133,333

Short Cut Formula:

Salary / # of Appointment Months x 12 = Annualized Salary

Example: (\$100,000 / 9) x 12 = \$133,333

Be sure to select the appropriate **Appointment Type** (9/12, 11/12 or 12/12) in the OR Budget Template for accurate calculations.

Determine/Calculate Effort Commitment

A proposal budget should include the effort committed to the project by the Principal Investigator (PI) and all other personnel.

- In most cases, Uniform Guidance requires investigators to commit some level of reasonable effort to each federal research award.
- Unless a specific level of effort is required by the program or sponsor, the PI is responsible for determining what constitutes a reasonable level of effort.

Effort levels committed to a project become incorporated into the conditions of the award.

- This means that key personnel are responsible for ensuring they meet their effort commitment.
- Uniform Guidance requires a certification as to the actual effort spent by all key personnel who committed effort to a sponsored project in a proposal.
 - At UC Davis, this is done through an online effort reporting system. For more details about effort reporting, view Contract and Grant Accounting's [Effort Commitment](#) page.

Sponsors may require that effort is reported either as:

- a percent of annual commitment, or by
- the number of Person-Months he/she will commit annually.

Note: the **Personnel Reference** tab at the bottom of the [OR Budget Templates](#) lists personnel effort in both annual % and Person-Months for easy reference.

Convert annual effort in % format to Person-Months format as follows:

$$\text{Annual Effort \%} \times 12 = \text{Effort in Person-Months}$$

Example: Professor Smith is committing 10% effort for the project year and has a 12-month appointment

$$10\% \times 12 = 1.2 \text{ Person-months}$$

If an investigator will be committing differing levels of effort during certain months of the year, such as one effort during the Academic Year (AY) and another during the summer (SMR), enter their salary and effort on two separate lines in the OR Budget Template, one for AY and the other for SMR.

- This will allow you to select appropriate fringe benefit rates for each period of effort in the benefits section.
- Do not be concerned that the same salary is entered on two separate rows since the indicated effort will allocate the appropriate amount of salary for each period.
- Note, if you use the **Personnel Reference** tab at the bottom of the OR Budget Template to determine effort for an individual with effort on two rows, be sure to add the effort indicated in both rows to sum their total effort.

If not using an [OR Budget Template](#), calculate the annual effort commitment as follows.

1. Determine the number of months they are working.
2. Calculate the % of annual effort using partial year effort:

$$(\text{\# of Applicable Months} \times \text{Effort \%}) / 12 = \text{First Effort \%}$$

Example: Dr. Daniels has a 9-month appointment and is committing 3% effort during Academic Year (AY)

$$(9 \times 3\%) / 12 = 2.25\%$$

3. Calculate the % annual effort using a second partial year effort:

$$(\# \text{ of Applicable Months} \times \text{Effort \%}) / 12 = \text{Second Effort \%}$$

Example: Dr. Daniels has a 9-month appointment and will work 10% of 1 month during the summer (SMR)

$$(1 \times 10\%) / 12 = .83\%$$

4. Add the % effort for the academic months and the % effort for the summer months.

$$\text{First Effort \%} + \text{Second Effort \%} = \text{Annual Effort \%}$$

$$\text{Example: } 2.25\% + .83\% = 3.08\%$$

Short Cut Formula:

$$[(\# \text{ of AY Months} \times \% \text{ Effort for AY}) / 12] + [(\# \text{ of SMR Months} \times \% \text{ Effort for SMR}) / 12] = \text{Annual Effort \%}$$

Calculate Salary to Charge to the Grant

If not using the [OR Budget Templates](#), calculate the salary to charge to the grant annually using either:

- a. Annual Effort Percent

$$\text{Salary} \times \% \text{ Annual Effort} = \text{Annual Salary to Charge}$$

$$\text{Example: } \$100,000 \times 2.7\% = \$2,700$$

- b. Person-Months effort

$$\text{Salary} / \text{Salary Basis} \times \text{Person-Months Effort} = \text{Annual Salary to Charge}$$

$$\text{Example: } \$100,000 / 12 \times 0.324 \text{ (Person-Months effort)} = \$2,700$$

SPO's [Proposal Budget Formulas](#) document may prove helpful.

Fringe Benefits

Fringe benefits are listed in a proposal budget as a set percentage of salary. When using the [OR Budget Templates](#), simply select the appropriate **UCPath CBR Group**.

For those not using the OR Budget Templates, do not apply any additional escalation to rates listed in the [Composite Benefits Rates](#).

- A 3% annual escalation may be added to fringe benefit rates in years **not yet** listed on the composite rate schedule.
- Always view the current [Composite Benefit Rates](#) before calculating fringe benefits.

Descriptions of common CBR Groups:

CBR Group	Personnel Category
HCOMP Faculty & SMG	SOM faculty and Senior Management
Nurses and Physicians	Nurses, Nurse Practitioners and Clinical Physicians
Faculty, Acad, MSP, Safety	Non-SOM faculty; Other Academic appointment such as project scientists and specialists; MSP positions such as directors; and safety services such as Fire and Police officers.
Faculty Summer Salary	Faculty Summer Salary
All Other Staff	Staff including analysts, SRAs, programmers
Service Staff	E.g., Janitors
Postdoc Employees	Postdocs
Grad and Undergrad	GSRs and Undergrads
Limited Benefits	Employees not eligible for full benefits (e.g., FTE % is too low)
No Benefit Eligibility	E.g., not eligible based on appointment type

Calculate the annual fringe benefits to charge as follows.

1. Calculate the annual salary to charge to the grant (*see above section*)
2. Determine the fringe benefit rate.
3. Calculate the annual fringe benefits to charge.

Annual Salary Charged x Fringe Benefit Rate = Annual Fringe Benefits to Charge

Example: \$3,600 x .389 = \$1,400

Equipment and Capital Assets

Equipment or other capital assets receive special treatment in the budget. They are excluded from the Modified Total Direct Cost (MTDC) base used to calculate a project's indirect costs (also known as F&A costs).

- Indirect costs are associated with the general operation of UC Davis and cannot be readily assigned to individual projects. These costs are requested from sponsors in addition to direct costs that support a specific project.
- All entries in the **Equipment** section of the [OR Budget Templates](#) are automatically excluded from the MTDC base.

Four types of capital costs are:

- [Equipment](#) (*immediately below*)
- [Software](#)
- [Renovations/Facilities Improvements](#)
- [Fabrications](#)

Equipment

According to [UC Davis PPM 350-50](#), equipment is:

- ✓ Non-expendable (not consumed in use),
- ✓ Standalone (not built into a wall; it has to be moveable),
- ✓ Has normal useful life of one year or more, and
- ✓ Qualifies as tangible property with an acquisition cost of \$5,000 or more.

The following can be included in the equipment total when a new piece of equipment is initially purchased:

- ✓ Invoice price of equipment, including any modifications, attachments, components, accessories or auxiliary apparatus necessary to make it usable for the purpose for which it was acquired.
 - Attachments, components, accessories and auxiliary apparatuses must meet the following requirements:
 - Must be permanent dedicated components of the equipment
 - Cannot function as independent stand-alone items
 - Cannot roam from asset to asset
 - Must have an expected lifespan of at least a year
 - Cannot be replacement parts
- ✓ The cost to put it in place (excluding renovations)
- ✓ Minor spare parts and software acquired with the initial purchase if they are not itemized separately
- ✓ Taxes, freight and installation

An add-on can be considered equipment if:

- ✓ It is an intricate functioning part of the equipment
- ✓ It significantly extends the useful life of the inventorial equipment or significantly increases capacity, productivity or output of the existing inventorial equipment, and
- ✓ The cost of the add-on is \$5,000 or more.

These must be specifically approved by the sponsor to be allowable.

Items that are NOT considered equipment include:

- ✗ Replacement or spare parts purchased subsequent to the initial equipment acquisition unless they significantly extend the useful life, increase productivity or increase the value of the equipment.
- ✗ Repairs are considered normal, regularly recurring disbursements to keep property in an efficient operating condition.

View the [Equipment Management](#) webpage for further information.

Software

Generally, software expenses will be budgeted one of two ways:

2) **Capitalized and excluded from F&A.** For example:

- ✓ Software purchase (not license) price is \$5,000 or more per copy
 - Consultant costs associated with readying the software for use may be included.
- ✓ Licenses where no period is mentioned (i.e., perpetual licenses) if the cost per license is \$5,000 or more and the useful life of the license exceeds one year.
- ✓ Software costs included with the purchase cost of hardware (not separately identified on the vendor's invoice) will be capitalized as hardware costs.

3) **Treated as supplies and subject to F&A.** For example:

- ✗ Annual software license fees and maintenance costs. This applies to software "leases" where the university does not own the software, but may operate it for as long as the license/maintenance fees are paid.

View Capital Asset Accounting's [Accounting for Software](#) webpage for further information.

Renovations/Facilities Improvements

These are rarely included in proposals, but there are specific solicitations for these costs. For example, animal facilities renovation grants or upgrades to research facilities grants. When deciding whether or not to capitalize facility expenditures, consider the following definitions (from [Accounting Manual P-415-1](#)):

- ✓ **Improvements or Betterments:** Significant alterations or structural changes which increase the usefulness, enhance the efficiency or prolong the life of property. This type of expenditure should be capitalized.
 - ✗ If expenditures are determined to be capitalized (per the definitions above), **the total cost (total cost of the job not per item) must be \$35,000 or more.**
- ✗ **Repairs:** Regularly recurring expenses to keep property in an efficient operating condition that do not significantly add to the value of the property or significantly lengthen the life of the entire asset (rather these costs ensure the asset retains its value). This type of expenditure should NOT be capitalized.
- ✗ **Replacements:** Replacing component parts of buildings or structures that do not significantly lengthen the life of the entire asset (again these costs help the asset retain its value). This type of expenditure should NOT be capitalized.

View the [Capital Asset Accounting](#) webpage for further information.

Fabrications

A fabrication is an item of non-expendable, tangible personal property that:

- (1) has been physically constructed by a University activity;
- (2) has a total acquisition cost of \$5,000 or more;

- (3) has a normal life expectancy of more than one year; and
- (4) is expected to be used by the University upon completion.

A product resulting from simple assembly or connecting of various parts does not qualify as a fabrication, nor does a piece of equipment fabricated for the sole purpose of sale and delivery to an external entity under an award made specifically for the fabrication of the equipment.

In order to be considered an equipment fabrication, the following criteria must be met:

- Is not available on the open market.
- Will be free-standing and movable.
- Will have an estimated cost of \$5,000 or more.
- Parts will be purchased from multiple vendors and/or via multiple purchase orders.
- Will be built at least partly by department personnel.
- Upon completion, will be placed into service for one year or longer, will not be a deliverable to the sponsor, UC will retain title, and the finished product will be a one-of-a-kind item.
- Outside labor as well as labor provided via an authorized recharge activity can be included in the fabrication cost; the cost of departmental labor cannot.

Note: Fabricated computer clusters must be constructed by the department and all computers are required to work collaboratively toward an end result. Ports may include individual monitors and keyboards, but the predominant function of the system must support a research project and/or perform mathematical or physics calculations. Computer networks do not qualify as clusters.

View Equipment Management's [Fabrications](#) webpage for further information.

Travel

General travel costs include a variety of expenses, such as:

- Ground and air transportation
- Communications
- Lodging
- Subsistence or per diem
- Currency exchange fees
- Passport and visa costs

Travel and accommodations for non-UC Davis personnel can be charged directly to a sponsored project instead of sending the money via a subaward.

Use [UC travel guidelines](#) to determine the appropriate travel rates.

- Some sponsors may insist on using other rates, which is acceptable.
 - However, these are often lower than the rates used by UC, so make sure the travel expenses can be managed before agreeing to the alternate rates.

- For [foreign travel](#), use [US State Department](#) travel rates.
 - When booking flights, remember that to the maximum extent possible, US flag carriers must be used.

[AggieExpense](#) is the university-approved system for arranging travel and processing expense reimbursements.

- In the actual budget, list the total cost of [domestic](#) and foreign travel separately.
- Guidelines on travel and entertainment are available on the [UC Davis Travel & Entertainment](#) website.

It is often important to show how the trip was costed in your justification. Consider the cost of:

- **Mileage:** Per mile rate determined annually by the IRS (remember to [check for updates!](#))
- **Airfare:** Based on actual cost; check online for rates for estimated time of year and destination
- **Hotel:** Domestic - Based on actual, reasonable costs up to \$333 per night (as of 1/1/24); Foreign - up to [max per diem](#).
- **Meals and Incidentals (domestic):** \$92 per day (as of 10/30/24) with some restrictions based on length of travel.
- **Meals Per diem (foreign):** Budget by [destination city](#).
- **Registration Fees:** \$300 to \$600 dollars or more. Ask the investigator the usual cost for their society meetings, or look up meetings online and budget an average rate.

A sample travel table in a budget justification looks as follows:

YEAR 1 Itemized Trips					
Purpose	Destination	Item	Rate	# travelers	Cost
Travel to relevant XY meeting to collaborate and disseminate information on research results.	TBD	Airfare	\$779/Flight	2	\$1,558
		Lodging	\$333/night x2	2	\$1,332
		Meals & Indic.	\$79 per day x3	2	\$474
		Registration	\$300 per person	2	\$600
		Taxi/shuttle	\$60 per person	2	\$120
				Trip Total	\$4,084

Participant Support Costs

If allowed by the awarding agency, “participant support costs” may be included as a direct cost category.

A participant is an individual receiving a service or training opportunity from a workshop, conference, seminar, symposium or other short-term instructional or information sharing activity funded by a sponsored award.

A participant does not perform work or services for the project or program other than for their own benefit and is not required to deliver anything or provide any service to the university in return for these support costs.

A participant may be a:

- ✓ UC Davis student/scholar

- ✓ Student/scholar from another institution
- ✓ Private sector company representative
- ✓ K-12 teacher
- ✓ State or local government agency personnel

Participants are **NOT**:

- ✗ Employees of UC Davis
- ✗ Students or project staff who receive compensation for work performed directly or indirectly from the grant
- ✗ Research subjects receiving incentive payments
- ✗ Federal employees
- ✗ Paid speakers or other invitees providing a service

The guidance below is provided to assist with classifying the most common types of participant support. However, analyze the solicitation requirements and/or check with the Sponsored Programs Office or the sponsor contact to ensure allowability.

Participant support costs may include the following expenses:

- ✓ Tuition and registration fees if required to participate in the project
- ✓ Event registration fees
- ✓ Stipend (predetermined amount regardless of actual costs) for housing and subsistence
- ✓ Travel costs when the sole purpose of the trip is to participate in the project activity
- ✓ Event support costs for lodging and meal expenses paid directly to the event facility, only if the payment is made on behalf of, or reimbursed directly to, the participant
- ✓ Meals and incidentals when on travel status
- ✓ Training materials paid directly on behalf of the participant
- ✓ Lab supplies paid directly on behalf of the participant

All costs reimbursed or paid on behalf of the participant must be incurred within the project period and specifically allowed by the sponsoring agency.

- Participant support costs are budgeted on a separate line and must be accounted for separately.
- Funds provided for unspent participant support costs cannot be rebudgeted for use in other categories, except with the prior written approval of the sponsor.
- In most cases, unspent participant costs must be returned to the sponsor.

Equally important, the following are costs that generally should **NOT** be budgeted as participant support costs:

- ✗ Travel for project Principal Investigator or staff
- ✗ Multi-purpose travel (e.g., to perform research in addition to attending a project related meeting)
- ✗ Travel for a consultant who is providing service to the university

- ✗ Event support cost (e.g., facility rentals, media equipment rentals, food/refreshments) not made on behalf of or paid to participants
- ✗ Entertainment/food for non-participants
- ✗ Honoraria paid to a guest speaker or lecturer
- ✗ Incentive payment to encourage an individual to participate as a research subject
- ✗ Subaward to a provider for multiple training events (e.g., an ongoing contract with specific terms and conditions)
- ✗ Payments to a participant's employer for reimbursement of the costs related to sending the employee to the project event
- ✗ Expenses related to meetings of an administrative nature

Other Direct Costs

Other direct costs may also be required for the project.

- List these costs in the budget and describe them in detail in the budget justification.

Materials and Supplies

Materials and supplies are tangible items that do not meet the definition of equipment, such as laboratory, project and specialty supplies that the researchers need to complete the project.

If a lump dollar sum for "general supplies" is requested without additional explanation at time of proposal, the sponsor will most likely request more detail before an award can be made — usually with very little turnaround time (one to two days).

- To preempt this request, include a breakdown of dollars by supply item or category.
 - Remember to not include miscellaneous or department (general) supplies, like copy paper, office chairs or pens, because these are included as F&A, or indirect costs.

Example Budget Table:

Lab Supplies detail					
Estimated Expense Item	Year 1	Year 2	Year 3	Year 4	Year 5
Computer: A laptop computer is necessary to record the histories of village inhabitants	\$1,500				
Data Storage Devices will enable the storage of all histories and data associated with the project.	\$2,000			\$4,000	
Software: Specialized software will be purchased to catalog personal histories of village inhabitants.	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Total	\$8,500	\$5,000	\$5,000	\$9,000	\$5,000



How do supplies differ from expenses?

Proposal budgets should separate supplies (tangible supply items) from expenses such as recharges, printing costs, publication costs and services.

- If it is difficult to separate supplies from expenses, use a best estimate.
- Always check non-federal sponsor guidelines to see if they have alternative instructions.



What if my supply costs vary per year?

Provide an explanation for the variance. If space is needed, this explanation can be made in the [budget justification](#) (link within this document) that corresponds to the budget.

Common reasons supply budgets may vary by year include:

- Supplies are bought in bulk initially and used over more than one year (to obtain a discount or best pricing).
- The scope of work requires more supplies in some years than others based on needed sample size, etc.

Consultants

A consultant is an individual with professional or technical expertise who is not employed by the university. Consultants are often referred to as “brain and briefcase” and typically work on an hourly basis.

Consultants provide advice, counsel or recommendations and NOTHING more. They do not have any authority over how their advice is acted upon.

- They do not use resources of an entity or own the resources of the entity for which they are consulting.
 - If someone is labeled a "consultant" in the budget, but will be using university resources, evaluate whether they are, in fact, a subcontractor.
 - Consultant info: https://servicehub.ucdavis.edu/servicehub?id=ucd_kb_article&sysparm_article=KB0010141
 - Amount of time that must pass to be a consultant: <https://supplychain.ucdavis.edu/procure-contract/biz-rev-contracts/conflict-interest>

Per UC, the use of consultants should be rare, because UC is the home of the experts.

- Before using a consultant, consider whether a person or department on campus can provide the same service.
- UC employees should **NOT** be listed as consultants on a proposal from UC Davis.

As a part of the budget, obtain a written scope of services and fee schedule from any consultants.

Finally, determine whether there is any conflict of interest between the institution or Principal Investigator and the consultant.

- Examine whether the consulting agreement is with a current or recent employee, their near relatives or an entity in which an employee controls or owns a financial interest.

- Read the [UC Davis Policy and Procedures Manual, Chapter 350, Section 90](#) which discusses UC policy in regards to employee vendor relationships.

Subawards (Subcontracts)

To aid in determine the appropriate type of agreement, view the [Subaward or Contractor/Vendor Guidance](#) document and/or [Subrecipient vs. Vendor](#). There are two basic types of subagreements:

- **Subawards** (*immediately below*)
- [Contractor/vendor agreements](#) (*jump to location*)

Subawards

Subawards can be in the form of a grant or a contract and are typically to another research institution or non-profit organization for collaborative work on a research project funded by an award from a prime sponsor (e.g., NIH, NSF, DoE).

- Subawards enable the prime awardee of the award to outsource portions of the project tasks to another entity in order to add necessary expertise to the project.
- The terms and conditions of the prime award pass down to the subawardee organization (subrecipient).

A subaward may be appropriate if the subrecipient's **Scope of Work** meets one or more of the following:

1. Performance represents an **intellectually significant portion of the overall programmatic effort** and is measured against the objectives of the sponsor's program
2. Will use the funds to carry out a program for a **public purpose**, as opposed to providing goods or services for the benefit of UC Davis
3. There is an **identified PD/PI for the subrecipient** who has responsibility for making programmatic decisions. This **Site PD/PI**:
 - a. May do work that results in the development of **intellectual property**
 - b. May author or co-author **publications** on the results of the work
 - c. Will need **animal and/or human subject approval** for the work, as appropriate
 - d. May receive **cost sharing or matching funds** from his/her institution
 - e. Is responsible for adhering to **applicable program and other requirements specified in the award**

If none of these terms are met, it's a contractor/vendor or consulting agreement.

- If still unsure, email the Sponsored Programs Office (SPO) at proposals@ucdavis.edu for guidance.

Incoming subawards from another institution (i.e., UC Davis is receiving the subaward) must be reviewed and approved by the SPO like any other incoming award.

- Route the subaward in Cayuse SP (<https://ucdavis.cayuse424.com/>) with attached budget, budget justification and scope of work for all required certifications, authorizations and approvals

Outgoing subawards (i.e., UC Davis is/will be sending awarded funds to one or more subrecipient institutions) must be included in the proposal package submitted to SPO for review. Learn more about the required forms and other elements on the [Outgoing Subawards](#) webpage.

Subawardee (or subrecipient) costs will appear in the prime proposal's budget as a lump sum per year by institution.

- This lump sum will be based on the Subawardee's detailed budget, which will usually be placed in the proposal directly after UC Davis' budget.
- It is important to know that all of the subawardee's costs – direct and indirect – are part of UC Davis's direct costs. However, some sponsors, such as the National Institutes of Health (NIH) do not include subaward indirect costs toward the direct cost limit.
 - Always check the sponsor guidelines and with SPO if you have questions.

For non-University of California organizations, **only the first \$25,000 of each** outgoing subaward is subject to indirect (F&A) costs if using the MTDC basis.

- For University of California entities, **no indirect costs are calculated** because we are all under the umbrella of the UC system and therefore cannot double charge the sponsor for indirect costs.

Contractor/Vendor Agreements

Procurement agreements to contractors/vendors secure goods and services needed to support a project and typically do not include any of the terms and conditions of the prime award. Procurement agreements can be to individuals or organizations.

- Procurement agreements are not routed through the Sponsored Programs Office (SPO). They are instead handled by UC Davis [Business & Revenue Contracts](#).

A procurement agreement is appropriate when:

- The contractor/vendor:
 - Is an individual or sole proprietor
 - Is a university and the transactions are done via recharge rates, through service agreements or through other sponsored activity agreements
 - Is a professional consultant OR is not significantly using its own computers/equipment for simply providing advice to the UC Davis personnel, including individual's in another school/college
 - Does not have a PI on the proposal
 - Provides similar goods or services within normal business operations or to many purchasers
 - Operates in a competitive environment
 - Does not have programmatic decision-making
- Their scope of work does not reflect a specific, clearly defined, intellectually significant part of the scope of work of the sponsor's award to UC Davis.
- The goods/services are:
 - Off-the-shelf or specialized services that are commercially available, usually at a fixed price or rate
 - Ancillary to UC Davis' sponsored project
 - Not subject to the sponsor's compliance requirements
 - Equipment, fabrication of equipment or components of fabricated equipment (unless fabricating

specialized equipment for the project's scope of work or to meet sponsor deliverables)

- A survey using de-identified data; not requiring IRB approval
- A test on data provided by UC Davis and the results are given to UC Davis to analyze and/or they provide result analysis as a routine professional service
- Routine in nature and follow established or previously invited/discovered procedures

Graduate Student Tuition and Fees

Graduate students employed on a sponsored project are entitled to have their tuition and fees remitted (paid) by the University. Check the [Graduate Studies webpage](#) for current rates.

To be eligible for tuition and fee remittance, a student must have at least a 25% appointment.

- Appointments may be split across multiple sponsored projects and still qualify for remittance.
- The tuition and fees remitted must be charged to the contracts or grants on which the student is appointed.
 - The tuition and fees must also be charged in proportion to the student's appointment split; however, if a student is only appointed part-time on one project, the entire cost of the student's tuition and fee remission will be charged to that single grant.
 - It is therefore prudent to ensure enough funds are budgeted to cover the entire cost of tuition and fees.

For budgeting purposes, GSR tuition and fees estimates may be escalated up to 10% per year.

- Because this rate of escalation can consume a large portion of the budget, some investigators choose to use a lower rate of 5% to 7% in their projections.

As part of UC Davis's continuing effort to improve graduate student support, the Provost allocates funds to partially buy-down Tuition & Fees and Nonresident Supplemental Tuition (NRST) for GSRs supported on extramural sources.

- Under the **GSR Buy-Down Program**, the campus pays 25% of the Tuition & Fees and NRST for a GSR appointment paid by certain extramural funds; the balance is charged to the extramural contract or grant.
- Learn more about the [GSR buy-down program](#).

Single Institutional Review Board (IRB) Fees

Single IRB (sIRB): The Institutional Review Board responsible for overseeing all sites participating in a multi-site study. Sometimes also referred to as the **IRB of record**, **reviewing IRB**, or **central IRB (cIRB)**.

- Additional info: UC Davis IRB [Single IRB and Reliances](#)

UC Davis to Act as the Reviewing IRB for Participating Sites

UC Davis IRB will charge the fees in the table below for each external site when acting as the IRB of Record for research funded by a federal funding agency, federal department or an industry sponsor.

- Always ensure you are using the most current rates consult the [IRB Administration Reliance Fee Form](#). You can also use the [IRB Fee Form Calculator](#).

Relying Institution	Initial Review	Continuing Review
UC Campus	\$2,224	\$1,211
Non-UC Campus	\$2,974	\$1,620

Figures above as of 5/1/25

When using the [OR Budget Templates](#), enter the above applicable fees (for UC Davis as Reviewing IRB) in the **Single IRB Fees** section.

- Do not enter Single IRB Fees in this section when UC Davis is a Participating Site relying on an External IRB.

Primate Center Costs

Important: If you include Primate Center costs in a budget you must take two actions in Cayuse SP:

- Add **Primate Center Special Rate** as an **Affiliated Unit** on the first page (General Information).
 - This will additionally route the Internal Processing Form (IPF) to the Primate Center for their approval of indicated rates.
- Attach a quote** from the Primate Center.
 - Primate Center [Contact Us](#)

Other Expenses

Patient Care Costs

Per UC Davis's [Negotiated Indirect Cost Rate Agreement \(NICRA\)](#) with the federal government, patient care costs are excluded from the direct cost base used to calculate indirect costs but must meet the definition of "Research Patient Care Costs" as defined in the [NIH Grants Policy Statement](#):

Research patient care costs are "the costs of routine and ancillary services provided by hospitals to individuals participating in research programs. The costs of these services normally are assigned to specific research projects through the development and application of research patient care rates or amounts (hereafter "rates").

Research patient care costs do not include:

- the otherwise allowable items of personal expense reimbursement, such as patient travel or subsistence, consulting physician fees, or any other direct payments related to all classes of individuals, including inpatients, outpatients, subjects, volunteers, and donors,
- costs of ancillary tests performed in facilities outside the hospital on a fee-for-service basis (e.g., in an independent, privately owned laboratory) or laboratory tests performed at a medical school/university not associated with a hospital routine or ancillary service,
- recruitment or retention fees or
- the data management or statistical analysis of clinical research results."

If patient care costs in your budget meet the above definition, for the **Subject to IDC Calc (MTDC)?** question (which means, is the expense subject to indirect cost calculations for Modified Total Direct Costs, or MTDC) in the **Other**

Expenses section of the [OR Budget Template](#), select **No.**, which will exclude that row from indirect costs.

Projects with patient care costs always involve human subjects, so the project must have IRB approval.

- See [UC CGM 18-200: University Policy on the Protection of Human Subjects in Research](#) and [NIH policy regarding Patient Care Costs](#) for more information.

Rental/Lease Costs of Off-Site Facilities

When rental/lease costs of off-site facilities are charged directly to a sponsored project, it is often appropriate to use the [off-campus](#) indirect cost rates for budget calculations.

- Remember that these lease charges must still be allowable, allocable and consistent.
- These lease and other associated charges must also be documented.

Per UC Davis's [Negotiated Indirect Cost Rate Agreement \(NICRA\)](#) with the federal government, rental/lease costs of off-site facilities (identified as "rental costs") are excluded from the direct cost base used to calculate indirect costs.

- In the **Other Expenses** section of the [OR Budget Template](#) for the **Subject to IDC Calc (MTDC)?** question (which means, is the expense subject to indirect cost calculations for Modified Total Direct Costs, or MTDC), select **No.**, which will exclude that row from indirect costs.

Facilities and Administrative (F&A)/Indirect Costs

Indirect costs, also known as facilities and administrative (F&A) costs or overhead, are associated with the general operation of UC Davis and cannot be readily assigned to individual projects.

These costs include:

- Facilities and maintenance
- General and departmental administration
- Clerical and administrative salaries and fringe benefits
- General office supplies
- General purpose equipment
- Routine postage
- Building maintenance and utilities
- Library expenses

The general formula to determine indirect costs is:

$$\text{Indirect cost base [MTDC, TDC, or TC]} * \text{F\&A rate} = \text{indirect costs}$$

Determine the F&A Rate

- The university commonly uses rates determined in the [Negotiated Indirect Cost Rate Agreement \(NICRA\)](#), though rates may vary based on sponsor policy and program guidelines.
 - SPO's [F&A and Fringe Benefit Rates](#) indicate these current NICRA rates.
 - If a sponsor specifies a different rate, an exception to the NICRA rates may need to be approved by the UC Office of the President (UCOP).

Sponsored Activity Categories

The federal rate agreement lists three major sponsored activity categories, each with its own F&A rate. Understanding how these functional areas are defined will aid in determining which F&A rate applies to a proposed sponsored project.

1. **Instruction** includes all teaching and training activities of an institution.
 - a. This consists of departmental research, development and scholarly activities that are not separately budgeted and accounted for.
 - b. Research training, which is part of organized research, is excluded.
2. **Organized Research** is all research and development activities of an institution that are separately budgeted and accounted for.
 - a. This includes sponsored research, which is all research and development activities that are sponsored by Federal and non-Federal entities, including activities involving the training of individuals in research techniques where such activities utilize the same facilities as other research and development activities.
3. **Other Sponsored Activities** are programs and projects financed by Federal and non-Federal agencies and organizations that involve the performance of work other than instruction and organized research.
 - a. This might be activities such as health service projects, like a community vaccination clinic, or community service projects, like literacy programs.

Location of Sponsored Activity

The appropriate F&A rate is also determined by where the research or project will be conducted.

1. **On-Campus Rates:** This is the most commonly used rate. Use this rate if the majority of the research team's effort occurs in facilities owned or leased by the university.
 - a. This is the most appropriate rate as these projects require resources to provide the infrastructure required for successful completion of research and other projects.
 - b. See Contract & Grants Accounting's [On-Campus vs Off-Campus F&A Rates](#) webpage for additional guidance.
2. **Off-Campus Rates:** The off-campus rate applies to projects primarily conducted at facilities not owned, or leased by the University. However, if the project is conducted in leased space and the lease costs are directly charged to the project, the off-campus rate may be used.
 - a. Projects with a subaward or with field work **do NOT** automatically count as off-campus, but rather the majority of the research has to be associated with off-campus locations and resources.
 - b. Again, see Contract & Grants Accounting's [On-Campus vs Off-Campus F&A Rates](#) webpage for additional guidance.

To ensure you have made the appropriate on/off campus classification for a particular project, contact proposals@ucdavis.edu early so they can assist you in determining the rate based on the specific details of your project.

Determine the Indirect Cost Base

Once the appropriate F&A rate has been determined, identify the correct F&A base to use. This may be:

- **Modified Total Direct Costs** (*immediately below*)
- [Total Direct Costs](#) (*jump to location*)
- [Total Costs](#) (*jump to location*)
- [Total Federal Funds \(TFF\)](#), used by USDA (*jump to location*)

Modified Total Direct Costs (MTDC)

All negotiated rates at UC Davis are applied on a Modified Total Direct Cost (MTDC) basis as defined in the NICRA.

The MTDC base includes:

- ✓ Salaries and wages
- ✓ Fringe benefits
- ✓ Materials
- ✓ Supplies
- ✓ Services
- ✓ Travel, and
- ✓ Subawards (subcontracts) up to the first \$25,000 of each subaward/subcontract.

The MTDC base excludes:

- ✗ Equipment
- ✗ Capital expenditures (i.e., renovations)
- ✗ Charges for patient care (see Patient Care section above)
- ✗ Student tuition remission
- ✗ Rental/lease costs of off-site facilities
- ✗ Scholarships and fellowships

"MTDC" can actually vary by organization and can mean any modified base. Check the specific agency guidelines for instructions on budget calculation.

- Example: NIH training grants state 8% MTDC, but only tuition and equipment are excluded.

Though the [OR Budget Templates](#) make UC Davis's MTDC calculations for you (based on your selections), you can calculate the indirect costs as follows:

1. Calculate the Total Direct Costs (TDC) and subtract items not subject to indirects, such as equipment.

$$\text{TDC} - \text{Equipment and other excluded items} = \text{MTDC Base}$$

2. Multiple the Indirect Cost Base by the F&A Rate.

$$\text{MTDC Base} \times \text{F\&A Rate} = \text{F\&A Costs}$$

Total Direct Costs (TDC)

Some sponsors require indirect costs to be calculated on all direct costs. This is a total direct cost basis (TDC).

- As this cost base is not the one on which our negotiated rate agreement is based, TDC should be used only if the sponsor specifically requires it.

Total Direct Costs are calculated similarly to MTDC but the only direct cost categories that should not be included in the indirect cost base are subawards or service agreements to other UC campuses.

Calculate the indirect costs as follows:

$$\text{TDC} - \text{subawards \& service agreements to UC campuses} = \text{TDC Base}$$

$$\text{TDC Base} \times \text{F\&A Rate} = \text{F\&A Costs}$$

Total Costs (TC)

As with Total Direct Costs, only use Total Costs (TC) as a cost base if the sponsor specifically requires it. This may seem complicated, but you can determine indirect costs with the following formula:

1. Formula if only the direct costs are known:

$$\text{TDC} - \text{subawards \& service agreements to UC campuses} = \text{TDC Base}$$

$$(\text{TDC Base} / (1 - \text{F\&A Rate})) \times \text{F\&A Rate} = \text{F\&A Costs}$$

Example: TDC Base = \$100,000 and the F&A rate is 25%.

$$(\$100,000 / (1 - 0.25)) \times 0.25 =$$

$$(\$100,000 / 0.75) \times 0.25 =$$

$$\$133,333 \times 0.25 = \$33,333$$

2. Formula if only the total budget limit is known:

$$\text{Total Budget Limit} \times \text{F\&A Rate} = \text{F\&A Costs}$$

Example: Your limit is \$100,000 and the F&A rate is 10% TC.

$$\$100,000 \times 10\% = \$10,000 \text{ (and \$90,000 in Direct Costs)}$$

TFF (USDA)

Each USDA Request for Applications (RFA) will stipulate the applicable indirect Cost (IDC) cap with additional details in the “Funding Restrictions” section.

- NIFA also provides a chart with indirect cost information on a program-by-program basis (see <https://nifa.usda.gov/resource/indirect-cost-chart>).

IDC for most USDA RFAs is not to exceed 30 percent of the recipient’s Total Federal Funds Awarded (TFFA). 7 U.S.C. 3310 limits the recovery of IDC for the overall award to 30 percent of the TFFA under a research, education, or extension grant. The maximum allowable IDC amount recoverable under the award, including the IDC charged by the sub-awardee(s), if any, is the lesser of the following and is determined by calculating the amount of IDC using:

- the sum of an institution’s negotiated indirect cost rate and the indirect cost rate charged by sub-awardees, if any; or
- 30 percent of TFFA.

UC Davis’s [OR Budget Template](#) for USDA (Template F) automatically calculates indirect costs for US Department of Agriculture (USDA) **Total Federal Funds (TFF)** proposals.

- The Request spreadsheet is identical to the standard Single Budget template (Template A) except for **Indirect Costs**, which **will show a base of either MTDC or TFF depending on the applicable rate**. The template makes this determination for you.

Without the template, you will have to manually determine the appropriate IDC amount.

[USDA guidance on TFF](#)

Calculate the Indirect Costs

Using the appropriate formula from above, calculate the indirect costs. Below are different examples of calculations using this sample budget scenario:

Sample Budget (1 year project) - TDC	
Personnel	
Professor Smith’s Salary - PI	\$13,333
Professor’s Smiths’ Benefits	\$ 670
Personnel Total	\$14,003
Equipment	
MRI	\$15,000
Equipment Total	\$15,000
Total Direct Costs	\$29,003
Indirect Cost Base	
Indirect Costs (rate 61%)	See below
Total Project Costs	

MTDC Base

1. Total Direct Costs - Equipment = MTDC Base
 $\$29,003 - \$15,000 = \$14,003$
2. MTDC Base x F&A Rate = Indirect Costs
 $\$14,003 \times 61\% = \mathbf{\$8,542 \text{ (rounded)}}$

TDC Base

1. TDC – subawards & service agreements to UC campuses = TDC Base
 $\$29,003 - 0 = \mathbf{\$29,003}$
2. TDC Base x F&A Rate = Indirect Costs
 $\$29,003 \times 61\% = \mathbf{\$17,692 \text{ (rounded)}}$

TC Base

1. TDC – subawards & service agreements to UC campuses = TDC Base
 $\$29,003 - 0 = \mathbf{\$29,003}$
2. $(\text{TDC Base} \div (1 - \text{F\&A Rate})) \times \text{F\&A Rate} = \text{Indirect Costs}$
 $(\$29,003 \div (1 - 0.61)) \times 0.61 = \text{Indirect Costs}$
 $(\$29,003 \div 0.39) \times 0.61 = \text{Indirect Costs}$
 $\$74,367 \times 0.61 = \mathbf{\$45,364 \text{ (rounded)}}$

Calculate the Total Project Costs

Once the indirect base and costs have been calculated, add the indirect costs to the Total Direct Costs to obtain the total project costs.

$$\text{Total Direct Costs} + \text{Indirect Costs} = \text{Total Project Costs}$$

Write the Budget Justification

A budget justification is a separate document that accompanies the budget spreadsheet and is a written description/explanation of the estimated project budget.

The budget justification is a required proposal component for most sponsors and is strongly encouraged by the UC Davis Sponsored Programs Office (SPO) even when not required.

- The budget justification provides the reviewer, the sponsor – and potentially an auditor – with:
 - An explanation of cost estimation methods
 - A description of the types of costs that make up a larger budget category such as "other" or "supplies"
 - An explanation of why the projected costs are necessary to conduct the project.

Providing a robust budget justification that includes an explanation of why costs are necessary helps the reviewers and sponsor understand that the budget request is reasonable and **can prevent automatic budget cuts at time of award**.

- Make it clear that all budget requests are reasonable and consistent with sponsor and UC Davis policies.

Format and Compile the Justification

There is no university-required format for budget justifications. However, some sponsors require specific formats so read the sponsor's Funding Opportunity Announcement/guidelines before beginning.

- In general, budget justifications should follow the same line item format and contain the same costs as the budget form.
- A reviewer should be able to place the two documents side-by-side and see the connection between each item.

For each person listed on the budget, describe:

- Their role
- Their effort in either % or Person-Months (consistency is helpful)
 - Any changes to personnel costs (such as change in effort over the project period)
 - The effort commitment should indicate how much time will be spent working on the specific project.
- Anything else needed to explain why that person is needed on the project
- How you determined the cost of their salary and benefits.

Do not include "course" or "teaching buy-out" unless the sponsor specifically indicates that as an allowable cost.

Materials and supplies:

- Remember that the more general the categories are and the higher the dollar amount of each category, the more detail that should be provided in the justification about specific items and how they relate to the research or project.
- If any items in the budget would ordinarily be considered indirect costs, such as general office equipment or administrative support, provide details in the justification about why these costs are direct costs and how they are integral to the project.
 - For example, if you need postage stamps to send out notices to research participants, these stamps could be considered a direct cost rather than an indirect cost.
 - This cannot be determined if the justification simply indicates "postage" and a dollar amount.

The direct relationship between budget items and the actual work of the project should be made extremely clear, as this information may eventually be reviewed by an auditor.

- You want to avoid an auditor not being able to determine a clear relationship post-award.

Examples of Budget Justification Language

Personnel Costs	
Senior/ Key Personnel	<ul style="list-style-type: none">• <i>Name of Researcher</i>, PhD (1 summer month effort; 1 academic month effort)<ul style="list-style-type: none">○ Dr. <i>Researcher</i>, an associate professor of X and an expert in A and B, will lead this project, providing oversight and management, designing and conducting the research and ensuring success.• <u>PI Researcher</u><ul style="list-style-type: none">○ 0.25 summer months support per year are requested to support the PI's effort

	<p>toward the program, providing general management and oversight and leading the research efforts.</p> <ul style="list-style-type: none"> • <u>Co-PI Researcher</u> <ul style="list-style-type: none"> ○ 0.25 summer months support per year is budgeted to support Co-PI Researcher in directing the education and training components of the program. • <u>Senior Participant Researcher</u> <ul style="list-style-type: none"> ○ Dr. Researcher is a soft-funded professional researcher; we therefore request 3.0-month support- commensurate with his/her effort toward the program- to enable his/her work on remote collaboration and related outreach activities of <i>this NSF project</i>. • <i>Name of Researcher</i> DVM, MPVM PhD. (Principal Investigator, Deputy Director, 80%) <ul style="list-style-type: none"> ○ Expertise: <i>Area of expertise</i> and large scale program administration. ○ Role: As Principal Investigator and Deputy Director, Dr. Researcher will work hand-in-hand with the Director (Dr. Researcher) to manage and administer the overall program. He/she will supervise the administrative support staff at UC Davis and oversee all UC Davis activities and work related to Objectives 1-5.
Postdoctoral Researchers	<ul style="list-style-type: none"> • <u>Postdoctoral Researchers</u> (2.25 calendar months' effort) <ul style="list-style-type: none"> ○ Postdoctoral researchers will be funded 2.25 calendar months per year to work on the bioinformatics components, supervise the graduate students, and contribute to reporting.
Graduate Student Researchers	<ul style="list-style-type: none"> • 3 graduate student researchers (GSRs) will be employed in year 1, and 1 GSR will be employed in year 2. All three will work 50% time during the academic year and 100% time in the summer. In year 1, the GSRs will assist with data coding, cleaning, reliability testing and preparation of the database for data analysis; during the second year, the GSR will assist with data analysis and manuscript preparation. • <u>Graduate Student Researchers</u> (4 FTE @ 7.5 calendar months' effort each) <ul style="list-style-type: none"> ○ We request support for graduate student researchers, who will work 50% time in the academic year and 100% time in the summer. The graduate students, anticipated from Dept. A, Dept. B and the Dept. C will participate on interdisciplinary research teams, developing visualization tools, software frameworks and their career skills. It is anticipated that several students will each be supported with these funds for an academic quarter at a time in order to maximize the project's reach and broaden its impact. The remainder of the participating students' effort will go toward complementary projects with independent funding, providing year-round support and a robust training program for all students. • Graduate Student Researchers – Two graduate students, one with programming expertise and the other with humanities and/or social science expertise, are allocated to the project to assist in development of the X application, maintenance of the prototype S module, testing of the platform and the module, and evaluation of the project as a pedagogical and research tool.

Personnel Costs	
Undergraduate Researchers	<ul style="list-style-type: none"> • <u>Undergraduate Student Researchers (500 hours per year)</u> <ul style="list-style-type: none"> ○ Funds are budgeted to allow undergraduate researchers from a variety of disciplines to fully participate in the project, including contributing to the specific visualization modules of the project, exploring cyberinfrastructure tools, and entering and manipulating data. Undergraduate researchers on the project will be strongly encouraged to present their work as a poster or talk at the UC Davis annual undergraduate research conference, which is modeled after professional

	research conferences.
Fringe Benefits	<ul style="list-style-type: none"> • Fringe Benefits <ul style="list-style-type: none"> ○ Fringe Benefits are calculated using the UC Davis composite rates developed by the UC Davis Costing and Policy office as required per institutional policy. Rates are applied by title code and fiscal year. • Fringe Benefits - Fringe benefits are budgeted at UC Davis' federally negotiated rates, which are applied by fiscal year and title code.

Travel	
Domestic Travel	<ul style="list-style-type: none"> • Travel funds for domestic travel in the amount of \$9,500 per year are requested for travel to Center workshops, clinics, pilot courses, meetings at collaborating intuitions, meetings with industrial and other partners and engineering education technical meetings. • External Advisory Board Travel <ul style="list-style-type: none"> ○ \$2,000 per year will allow the external advisory board to meet in person for planning, decision making, and advising. • Objective Team Meetings <ul style="list-style-type: none"> ○ An annual 3-day meeting will be scheduled to coordinate and plan activities for each of the 5 objectives. Five participants from key partner institutions will travel to UC Davis or Name of location for each of the 5 yearly meetings. Objective Team meetings will be scheduled to coincide with other senior management meetings as a cost efficiency. Cost per meeting includes airfare @ \$600, hotel @ \$200/day for 3 days = \$600, per diem at \$50/day for 3 days = \$150, ground transportation @ \$50/day for 3 days = \$150; 5 trips/meeting @ \$1,500 = \$7,500; 5 meetings/yr. @ \$7,500 = \$37,500/yr. (total of 5 years \$37,500/yr. = \$187,500).
Foreign Travel	<ul style="list-style-type: none"> • International – Administrative <ul style="list-style-type: none"> ○ <i>Name of staff</i> – 4 foreign trips per year from Davis to 4 surveillance hotspot regions in name of countries to conduct site visits and coordination/facilitation with country coordinators and partners; as a cost efficiency one of these trips will correspond to the Annual Meeting each year; airfare @ \$2,500, hotel @ \$150/day for 10 days = \$1500, per diem at \$50/day for 10 days = \$500, ground transportation @ \$50/day for 10 days = \$500; 4 trips @ \$5,000 = \$20,000/yr.; (5 years @ \$20,000/yr. = \$100,000)

Travel	
Conferences	<ul style="list-style-type: none"> • Professional Conferences – Funds in the amount of \$1,500 per domestic trip and \$3,000 per international trip are requested to enable the principal investigator to attend four related professional conferences in year 1, and 2 in year 2, to disseminate the results of the study. Planned conferences are as follows: <ul style="list-style-type: none"> ○ American Sociological Association, Denver, Colorado, August 2012 ○ American Psychological Association, Orlando, Florida, August 2012 ○ International Sociological Association, Research Committee on Social Stratification (RC28), Hong Kong, May 2012 ○ Association for the Study of Higher Education, Las Vegas, Nevada, November, 2012 ○ American Sociological Association, New York City, New York, August 2013 ○ American Psychological Association, Honolulu, Hawai'i, August 2013

Materials and Supplies	
Computer/	<ul style="list-style-type: none"> • In year 1, \$1,145 is requested to purchase a Stata/SE license with PDF documentation,

Software	<p>which will be used to conduct the statistical analysis necessary for completion of the study. \$650 is also requested in year 1 to purchase NVivo, a qualitative data analysis program that will be used for the coding and qualitative analysis of the content of the evaluation reports. Both licenses will remain valid for the 2 years of the project.</p> <ul style="list-style-type: none"> • Software Licenses - We have budgeted funds to cover the costs of the licensing fees associated with the necessary software programs for the module. • Materials and Supplies <ul style="list-style-type: none"> ○ Computer Supplies – \$1,500 is budgeted to cover the costs of necessary computer supplies, such as back-up media, peripherals and supporting applications. ○ Servers – \$4,000 is budgeted for the purchase of three servers for hosting, distributing and maintaining the x platform and related software, data and materials.
Laboratory Supplies	<ul style="list-style-type: none"> • Laboratory supplies are requested for evaluating and validating diagnostic tests used for wildlife surveillance (PCR reagents @ \$100/sample x 3000 samples = 30,000/yr.; 5 year total = \$150,000)

Other Costs	
ATS/ MediaWorks Charges	<ul style="list-style-type: none"> • Funds in the amount of \$22,000 have been budgeted to cover the recharge fees of ATS/MediaWorks programmers and instructional designers. Their recharge rate is \$77.50 an hour and we have estimated our use at 284 hours.
Graduate Student Tuition and Fees	<ul style="list-style-type: none"> • Graduate student tuition and fees are budgeted for the GSR employed on the project per UC Davis' policy. Amounts are based on current rates in year 1 with projected rates in years 2 through 5.

Indirect Costs	
Indirect Costs	<ul style="list-style-type: none"> • Indirect costs are budgeted at UC Davis' federally negotiated rate for on- campus research- 57% which is applied on a Modified Total Direct Cost Basis (MTDC.)

Resources

- [Sponsored Programs Office \(SPO\)](#)
 - [Budget Development](#)
 - [Learn: Proposal Budgeting](#)
 - [Outgoing Subawards](#)
- Checklists:
 - [New Proposal Checklist](#)
 - [Call for Proposals Checklist](#)
 - [Proposal Budget Justification Checklist](#)
- Cost sharing: [Guidance for submitting a proposal that involves cost sharing](#)
- [F&A and Fringe Benefit Rates](#)
 - [Negotiated Indirect Cost Rate Agreement \(NICRA\)](#)
- [Key Terms](#)
- [OR Budget Templates \(and FAQs\)](#)
- [Proposal Budget Formulas](#)
- [Senior/Key Personnel Descriptions](#)
- [Single IRB and Reliances](#)
 - [IRB Administration Reliance Fee Form](#)
 - [IRB Fee Form Calculator](#)
- [Subaward or Contractor/Vendor Guidance](#)
- [Subrecipient vs. Vendor](#)
- Capital Asset Accounting / Equipment Management
 - [Capital Asset Accounting](#)
 - [Equipment Management](#)
 - [Accounting for Software](#)
 - [Fabrications](#)
- Finance & Business
 - [AggieExpense](#)
 - [Business & Revenue Contracts](#)
 - [Composite Benefit Rate schedule](#)
 - [Consultant info](#)
 - [Contracts & Grants Accounting](#)
 - [Cost Share Tracking](#)
 - [Effort Commitment](#)
 - [On-Campus vs. Off-Campus F&A Rates](#)
 - [Amount of time that must pass for a UC employee to be a consultant](#)
 - [UC Davis Travel & Entertainment](#)
 - [UC travel guidelines](#)
 - [US State Department max per diem](#) (*external link*)
 - [Domestic travel](#)
 - [Foreign travel](#)
 - [US State Department travel rates](#) (*external link*)
 - [Ground transportation](#)
- [Graduate Studies](#)
 - [GSR buy-down program](#)
- Primate Center [Contact Us](#)
- Salary Scales:
 - [UC Davis Staff Salary Scales](#)

- [UCOP Academic Salary Scales](#)
- External:
 - [Federal Demonstration Partnership \(FDP\)](#)
 - [Member Organizations](#)
 - [NIH Grants Policy Statement](#)
 - [NIH Person-Months information](#)
 - [USDA guidance on TFF](#)
 - [NIFA Indirect Cost Chart](#)
- Policies:
 - UC Davis
 - [Policy and Procedure Manual \(PPM\) 350-50: Classification of Inventorial Equipment](#)
 - [PPM 350-90: Employee-Supplier Transactions](#)
 - [Delegation of Authority \(DA\) 2569, Chancellor to Vice Chancellor—Research: To Solicit and Accept or Execute Certain Extramural Grants and Contracts](#)
 - UC
 - [Academic Personnel Manual \(APM\) – 020: Special Services to Individuals and Organizations](#)
 - [Accounting Manual P-415-1: Capitalization of Expenditures Made from Current Funds](#)
 - [Contract and Grant Manual](#)
 - [Chapter 1-500: Principal Investigator Guidelines](#)
 - [Chapter 2-200: Solicitation Authority](#)
 - [Chapter 5: Cost Sharing](#)
 - [Chapter 7: Budget and Expenditures](#)
 - [Chapter 8: Indirect Costs](#)
 - [Chapter 10-300: Contract and Grant Administration: Responsibilities and Duties](#)
 - [Chapter 13-700: Campus Contract and Grant Authority](#)
 - [Chapter 18-200: University Policy on the Protection of Human Subjects in Research](#)
 - [Requirement to Submit Proposals and to Receive Awards for Grants and Contracts through the University](#)
 - California
 - [State of California AB20 Model Agreement](#)
 - Federal
 - [OMB Uniform Guidance](#)
 - [Federal Cost Accounting Standards Board \(CASB\)](#)
 - [Cost accounting standards](#)
 - [Code of Federal Regulations \(CFR\)](#)
 - [About the Code of Federal Regulations](#)
 - [NIH policy regarding Patient Care Costs](#)