

COST ALLOCATION PRINCIPLES

**AND ALLOCATION EXAMPLES FOR
RESEARCH EXPENDITURES**

COST ALLOCATION

Some information in this presentation was copied, in whole or in part, from:

University of Washington (n.d.). *Post Award Fiscal Compliance*. Cost Allocation. Retrieved May 1, 2022, from <https://finance.uw.edu/pafc/cost-allocation>

COST ALLOCATION PRINCIPLES

Uniform Guidance, Subpart E - Cost Principles stipulate that charges to sponsored projects must be:

➤ Reasonable

➤ **Allocable**

➤ Consistently Treated

➤ Allowable

Today we are going to address allocation.

COST ALLOCATION DEFINITION

Uniform Guidance § 200.1 Definition

Allocation means the process of assigning a cost, or a group of costs, to one or more cost objective(s), in reasonable proportion to the benefit provided or other equitable relationship. The process may entail assigning a cost(s) directly to a final cost objective or through one or more intermediate cost objectives.

This means allocating a cost across multiple grants and/or Cost Center accounts and can also mean allocating receipts/invoices between spend categories (expense, repair, asset build transactions, etc.).

COST ALLOCATION

The main concept to keep in mind is the Government and other sponsors expect UCF to apply a “fair share” principle or the reasonable portion of benefit to the project. Sponsors do not want to pay more than the share attributable to performing the scope of work they are funding.

COST ALLOCATION

Costs may not be allocated based on:

1. Department/unit not having a process for verifying whether a transaction should be allocated to more than one grant/cost center number and therefore one grant is charged 100%;
2. Amount of available funds on a Grant;
3. Budgetary convenience, e.g., accommodating a Grant that is either over or under budget;
4. Avoidance of restrictions on a Grant; and/or
5. Offset where costs are charged to Grant A one time and Grant B the next time.

ALLOCATION BEST PRACTICES

- 1) Documentation: Document the allocation methodology. Documentation should explain how the allocation methodology is reasonably related to the costs being allocated. Document how measures such as headcount, square footage, or hours directly relate to the benefit received. Documentation should be retained along with the purchase receipt and made available for review.
- 2) Consistency: The allocation methodology must be used consistently in like circumstances.
- 3) Review Methodology: Routinely review the methodology to ensure it continues to represent a reasonable basis for distributing costs. The methodology should be updated if it is determined that it no longer represents a reasonable distribution of costs.

ALLOCATION BEST PRACTICES

- 4) Review Allocations After-the-Fact: Review estimated allocations on a routine basis. If a cost has been allocated based on an estimate, that cost can be reallocated - if needed - using a cost transfer. Ensure that reallocations are completed promptly so that accurate costs are recorded on the appropriate funding source within 90 days of the original expense posting date or within 90 days of the error being identified in an audit.
- 5) Update Allocations: Update allocations when a funding source is no longer available or a new source has been added. The methodology should not change unless it no longer provides a reasonable representation of the benefit provided.
- 6) Review Grant End Dates: The end dates of all grants should be taken into consideration. The benefit received on each grant may be impacted if, for example, two grants have significantly different end dates.

ALLOCATION BEST PRACTICES

If a cost solely benefits one funding source, it should be charged entirely to that funding source. If a cost benefits more than one funding source, the cost should be charged to each funding source in the same proportion as it provides benefit.

There are two methods for allocating a cost to multiple funding sources:

- **The Proportional Benefit Rule:** when it is possible to determine the exact benefit of the cost to each funding source, the cost is allocated according to the proportion of benefit provided.
 - Example: A lab purchases 12 gallons of solution. 3 gallons of solution are used on Award A and 9 gallons on Award B. 25% ($3/12$) is charged to Award A and 75% ($9/12$) is charged to Award B.
- **The Interrelationship Rule:** when it is not possible or cost effective to determine the exact allocation or use for each funding source, the cost is distributed on a reasonable and rational basis.
 - Example: A lab purchases syringes for use in experiments on two Awards. It is impossible to tell in advance exactly how many syringes will be used for each Award, and it would not be cost effective to track the use of each syringe. Instead, the lab allocates the cost of the syringes based on the amount of effort the lab personnel who uses the syringes expends on each Award. If the effort allocation is 70/30 on Awards A and B, the cost of the syringes would also be 70/30.

COST ALLOCATION EXAMPLES

Allocation based on usage:

The cost of lab supplies allocated based on the quantity used on each Award.

A Principal Investigator uses 5 gallons of solution per month on Award A and 7 gallons of the same solution per month on Award B. The department orders 12 gallons of solution per month at \$10 per gallon including tax and shipping for a total cost of \$120. Award A should be charged \$50 ($\$10/\text{gallon} \times 5 \text{ gallons}$) and Award B should be charged \$70 ($\$10/\text{gallon} \times 7 \text{ gallons}$).

COST ALLOCATION EXAMPLES

Allocation based on number of experiments:

The cost of syringes allocated based on the number of experiments on each Award.

A Principal Investigator uses syringes to conduct experiments on two of his research Awards. The PI keeps a log of how many experiments are performed on each Award each week. Syringes are ordered every two weeks at \$1 per syringe. The log indicates the following:

Award A:

Week 1: 25 Experiments

Week 2: 39 Experiments

COST ALLOCATION EXAMPLES

Allocation based on number of experiments continued....

Award B:

Week 1: 19 Experiments

Week 2: 16 Experiments

The total cost of the syringes is \$99 (99 experiments x \$1/syringe). Award A should be charged \$64 (64 experiments x \$1/syringe) and Award B should be charged \$35 (35 experiments x \$1/syringe).

COST ALLOCATION EXAMPLES

Allocation based on number of hours:

The cost of a computer program allocated based on hours used for each Award.

A researcher uses the same computer program for two Awards. Because the Awards require significantly different usage of the program and the tasks are long, the researcher keeps a log of how much time they use the program for each Award, rounded to the hour. The department is billed quarterly for use of the program. At the end of the quarter, the amount billed is \$500 for 50 hours (\$10/hour) of work on the two Awards. The researcher's log shows that 40 hours were used on Award A for a cost of \$400 and 10 hours were used on Award B for \$100.

COST ALLOCATION EXAMPLES

Allocation based on percentage effort:

The cost of lab supplies allocated based on the PI's percentage of effort charged to each Award.

A PI spends 70% effort on Award A and 30% effort on Award B. The PI uses lab supplies totaling \$6,000/month on the two Awards. Award A is charged \$4,200 (70% of \$6,000) and Award B is charged \$1,800 (30% of \$6,000).

COST ALLOCATION EXAMPLES

Allocation based on square footage:

Student assistant salary allocated based on the square footage of two laboratories.

A student is paid a salary of \$1,200 a month to clean two laboratories conducting similar research. The only research performed in Lab A is on Award A and the only research performed in Lab B is on Award B. In this example, the square footage of the laboratories could be used as a reasonable basis to allocate the student's salary. Lab A is 1,400 square feet and Lab B is 1,000 square feet. Award A should be charged \$700 ($1,400 \text{ sq. ft.} / 2,400 \text{ sq. ft.} \times \$1,200$) and Award B should be charged \$500 ($1,000 \text{ sq. ft.} / 2,400 \text{ sq. ft.} \times \$1,200$).

COST ALLOCATION EXAMPLES

Allocation based on FTEs:

The cost of renting space allocated based on the number of FTEs on each Award.

A Research Center is located in Alaska and pays \$10,000 in monthly rent. There are three FTEs employed on Award A, six FTEs employed on Award B, and one FTE paid from another non-award funding source. These are all the FTEs at this site and the only two Awards with work performed and managed at this site. Award A should be charged \$3,000 monthly rent ($3/10$ FTEs x \$10,000 monthly rent) and Award B should be charged \$6,000 ($6/10$ FTEs x \$10,000 monthly rent). The remaining \$1,000 monthly rent cannot be charged to either Award.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #1:

Department was constructing an asset with 100% allocation to a DURIP grant number. However, the DURIP grant number had insufficient funds to cover the \$1,044.65 shipping. The Department elected to charge the PI's Research Foundation balance account. Both the asset build and the components were proposed. The only reason the Department ran out of money was due to vendor price increases between the proposal/award and the date of purchase. This would be an allowable allocation as voluntary cost share. In this case, we were using University funds to subsidize federal funds and 100% of the benefit was to the project as opposed to using federal funds to subsidize University funds for a non-project purpose.

Shipping costs as part of the vendor's invoice for a piece of equipment (or component in asset builds) are allowable as part of the capitalized price of equipment.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #1 continued....

The problem: The Research Foundation cannot hold title to equipment and therefore must assign title for all equipment to UCF. Because the shipping is part of a capitalized asset build, the shipping was paid under an equipment account code (spend code). The shipping was only \$1,044.65 and by itself did not constitute a piece of equipment that the RF could assign to UCF. In other words, expenditures in an equipment account code will trigger a donation letter from the RF.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #1 continued....

The Research Foundation confirmed they were unable to “donate” shipping costs and the only way for the shipping costs to be included in the asset build expenditures would be to find another source of funds (non-research foundation).

The Department ended up cost sharing from a UCF Cost Center account as voluntary cost share. The charges to the project were allocable because the purpose of the award was to build the specific asset that was constructed.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #2

\$4,290 was charged to Project A because that was the amount of available budget. The balance of \$8,500 was charged to the PI's start-up. When the allocation method was requested OR was told "UCF is paying the majority of the costs and the PI start-up is out of available budget."

This was not accepted because the decision was made based upon the amount of available funds on the Grant rather than the proportionate benefit to the project.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #3

A procurement card receipt was processed as part of the costs associated with an asset build. 100% of the receipt lines were treated as equipment. Upon further review, it was discovered that some of the receipt items were replacement parts for the constructed asset. Only one was used for the equipment to function but a dozen were purchased because it was cheaper to buy in bulk. Another receipt line (a two-hole punch) was not related to the project at all.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #3 continued....

Resolution:

- 1) One of the bulk purchase items can be paid as part of the asset build;
- 2) The remaining 11 replacement items could be paid from the project as laboratory expenses if it was reasonable all 11 would be used in the performance of the project (fair share). If not, a reasonable, fair share amount of the replacement parts could be charged to the project as laboratory expenses and the rest would need to be paid from non-sponsored funds.
- 3) The two-hole punch should be allocated to non-sponsored funds.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #4

An equipment pre-expenditure review is submitted to the Office of Research using funds from Project A. The Office of Research approves the purchase and advises the Unit Administrator the equipment will require a US decal (due to award terms and conditions). The Unit Administrator submits a revised request from the PI changing the grant number to Project B indicating the PI does not want to return the equipment to the Government at the end of the project.

Please note, this would still be a concern even if the Unit Administrator had resubmitted the request for Project B and omitted the rationale.

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #4 continued....

Allocation issues:

- 1) If Project A and Project B are both using the equipment, the initial request should have included both grant numbers and the revised request should be updated to include Project A, Project B and any other grant number utilizing the equipment;
- 2) Avoidance of restrictions on a grant (i.e. US decal) is not an acceptable allocation method;

ALLOCATION EXAMPLES THAT WERE NOT ACCEPTED

Example #5

Tuition for two students was paid 100% from Project A. The first student's payroll was paid 35% from Project A and the balance was paid from Project B. The second student was paid 100% from Project C.

Tuition payments did not follow an approved allocation method based upon a fair share distribution. The Cost Center had to prepare a cost transfer for the tuition from Project A to ensure the distribution followed the same level of participation as the payroll expenditures on Projects B and C.

WHO IS REVIEWING COST ALLOCATIONS?

- All internal and external auditor's review expenditures at the transaction level.
- UCF's Federal Property auditor reviews equipment transactions in detail for randomly selected decal numbers. If a randomly selected decal number was a constructed asset, they review ALL expenditures comprising the asset build at the transaction level.
- The Office of Research Compliance Office tests transactions randomly to review for allocation methodology and allocation documentation. If required by an auditor, the Compliance Office will request a copy of an updated departmental procedure to ensure allocation processes are in place and followed.

FINAL THOUGHT

We have never experienced an audit finding where the auditor thought we picked the wrong allocation method. For example, we used a percent of effort allocation method but an auditor thought a better method would have been to allocate based upon a square footage calculation.

The most common allocation concern we experience in Financial Compliance during a project review or audit is when no documented allocation method was recorded at the time the expenditure was processed but instead is prepared at the time the auditor requests the documentation. It is hard to defend the accuracy of an allocation method that is prepared months after the expenditure posts to a grant.

QUESTIONS?