

Cost Allocation

Overview

This guidance is designed to provide assistance to campus users when direct charging costs to multiple benefiting sponsored awards and to comply with the direct charging principles contained in [2 CFR Part 220 \(OMB Circular A-21\)](#) and [2 CFR Part 200 \(Uniform Guidance\)](#). As such, the University is responsible for ensuring that costs charged to a sponsored award are allowable, allocable, and reasonable under these cost principles and that the University's financial management system ensures that no one person has complete control over all aspects of a financial transaction.

In addition, goods and services purchased by the University under a sponsored award may often benefit more than one award. Such costs must be allocated to sponsored awards in proportion to the actual benefit received by the awards. If it is impractical to determine how much of the goods or services are actually used for each award, an allocation methodology must be developed and documented that reasonably estimates the actual benefit to each award. Costs are then distributed to each benefiting sponsored award using the allocation methodology.

Allocation Definition

Allocation is the process of assigning a cost, or a group of costs, to one or more budgets, in reasonable proportion to the benefit provided to each budget. A cost is allocable to a particular award/budget if the goods or services involved are chargeable or assignable to that award/budget in accordance with relative benefits received.

Multi-award Cost Allocation

If an expenditure solely benefits one award, it should be charged entirely to that award. However, sometimes an expenditure can benefit more than one award or other activity. When this occurs, the expenditure must be charged in the same proportion as it benefits each of the awards or activities.

Costs may not be allocated based on:

1. Amount of available funds on an award;
2. Budgetary convenience (to accommodate an award that is either over or under budget, budget is ending soon, etc.);
3. Avoidance of restrictions imposed by law or terms of the award;
4. Offset (costs charged to budget A one-time and budget B the next time).

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 determined proportion of benefit provided.
 - Example: A lab uses 3 gallons of solution on award A and 9 gallons of solution on award B. 12 gallons of solution are purchased 25% (3/12) is charged to award A and 75% (9/12) is charged to award B.
 - Since direct benefit to the project(s) is being determined by the initiator of the transaction and allocated in proportion to the benefit received by the awards, detailed documentation supporting the calculation of proportions is not required to execute the transaction.
- The Interrelationship Rule: when it is not possible to determine the proportional benefit to each funding source because of the interrelationship of the work involved. The cost is distributed on any reasonable and rational basis.
 - Example: A lab purchases syringes for use on experiments for two awards. As 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, the lab allocates the cost of the syringes based on the amount of effort the lab tech (who uses the syringes) expends on each award. If the lab tech allocates his time on a 70/30 allocation between award A and B, the cost of syringes is allocated using a 70/30 allocation.

Allocation Best Practices

- Document the allocation methodology determined under the Interrelationship Rule. Documentation should include support for the specific costs allocated and indicate how the allocation methodology is logically related to the cost being allocated. This support should be retained by the department and be made available for review. Document why measures such as headcount, square footage or hours directly relate to the benefit received.
- The allocation methodology established must be used consistently in like circumstances.
- Review allocations on a routine basis. This is to ensure that the methodology continues to represent a reasonable basis for distributing the cost. If it is determined that the allocation method no longer represents a reasonable distribution of the cost it should be changed.
- Review Estimated Allocations on a routine basis. If a cost has been allocated based on an estimate, the costs can be reallocated using a cost transfer if the estimate is later determined to be inaccurate. **Be sure that re-allocations are completed promptly so that accurate costs are being recorded on the award/budget, and so that cost transfers are not completed more than 90 days from the original expense posting date.**

- Update Allocations when an award/budget begins and ends. Allocations will need to be modified when an award/budget ends and if a new award/budget begins. The basis should not change unless it no longer provides a reasonable representation of the benefit provided.
- Take award End into consideration. If a cost is being allocated between multiple awards and one award has an end date that is disproportionate to the other, the end date of all awards should be taken into consideration when determining proportional allocation. In that case, document why the award with a closer end date is still being charged at the regular rate.

Examples of Possible Allocation Bases

- Usage: The cost of lab supplies allocated based upon the quantity used on each project. Usage documentation must be maintained. This is especially important when charging a budget to replenish shared supplies near the end of an award.
- Number of experiments: The cost of syringes allocated based upon the number of experiments performed on each project.
- Number of hours: The cost of computer equipment allocated based upon the number of hours logged on for each project.
- Number of clients served: The cost of personality tests allocated based upon the number of clients served.
- Effort: The cost of lab supplies proportionately allocated based upon the PI's/lab personnel charged to each project.
- Square footage: The salary of a student assistant cleaning glassware in two laboratories that are conducting similar research proportionately allocated based upon the square footage of the two laboratories.
- Full-time effort (FTE): The cost of renting space allocated based upon the number of FTEs working on each project.

Allocation methodology “Do’s and Don’ts”

- **Don’t** use allocation methodologies that result in an over- or under-recovery of expense. An over- recovery of expense may result in a refund to the sponsor. An under-recovery may need to be funded by the department.
- **Don’t** use any allocation methodology that is based on the funds available on sponsored awards.
- **Do** ensure that the interrelationship allocation methodologies are documented contemporaneously with the cost being incurred and allocated.
- **Do** document how measures such as headcount or square footage logically relate to the cost being allocated and the benefit received by the awards.
- **Do** retain the supporting documentation in the department so it is available for review and audit.
- **Do** review allocation methodologies periodically to ensure they are reasonable.

Significant changes to the population may signal the need to review the allocation methodology. Also, allocations based on FTE's must be updated to reflect any changes in headcount or effort. Methodologies based on sampling, surveys, etc., should be reviewed, updated, and approved by the PI at least once each fiscal year and/or when new awards are received and awards expire.

- **Do** identify the allocation method that will be used in advance of purchasing or at the time of ordering the goods/services whenever possible (to avoid the need for cost transfers).
- **Don't** allocate costs after-the-fact by use of cost transfers.

Cost Allocation Examples

Allocation based upon usage:

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

A Principal Investigator uses 5 gallons of solution per month on Project A and 7 gallons of the same solution per month on Project B. The department orders 12 gallons of solution per month at \$7.99 per gallon (including tax and shipping). The total cost is \$95.88. Project A should be charged \$39.95 ($\$7.99/\text{gallon} \times 5 \text{ gallons}$) and Project B should be charged \$55.93 ($\$7.99/\text{gallon} \times 7 \text{ gallons}$).

Allocation based upon number of experiments:

The cost of syringes allocated based upon the number of experiments using the syringes performed on each project.

A Principal Investigator uses syringes to conduct experiments on two of his research grants. The syringes are only good for one experiment and then they must be thrown away. The PI keeps a log of how many experiments are performed on each project per week. Syringes are ordered every two weeks at \$1.05 per syringe. The log indicates the following:

Project A: Week 1: 25 Experiments Week 2: 39 Experiments

Project B: Week 1: 19 Experiments Week 2: 16 Experiments

The total cost of the syringes is \$103.95 ($99 \text{ experiments} \times \$1.05/\text{syringe}$). Project A should be charged \$67.20 ($64 \text{ experiments} \times \$1.05/\text{syringe}$) and Project B should be charged \$36.75 ($35 \text{ experiments} \times \$1.05/\text{syringe}$).

Allocation based upon number of hours:

The cost of computer software allocated based on the number of hours logged on for each project.

A research assistant uses the same software program for two research projects. The research assistant is given an individual sign on name for each of the projects. By signing on with individual user names, the computer is able to keep track of how many hours are spent on each project. The quarterly report indicates 55 hours were spent on Project A and 305 hours were spent on Project B. This is all of the work that will be done with this program. The software cost \$390 total. Project A should be charged \$330.42 (305 hours/360 hours x \$390) and Project B should be charged \$59.58 (55 hours/360 hours x \$390).

Allocation based upon the number of clients served:

The cost of personality tests allocated based upon the number of clients served.

Project A and Project B require their subjects to take a personality test, and the same test is used on both projects. The test costs \$200 and is ordered in bulk to save money. Project A uses 50 tests and Project B uses 550 tests. The total cost of the tests is \$120,000. Project A should be charged \$10,000 (50 tests x \$200/test) and Project B should be charged \$110,000 (550 tests x \$200/test).

Allocation based on percentage effort:

The cost of lab supplies proportionately allocated based upon the PI's percentage of effort charged to each project.

A Principal Investigator spends 70% effort on Project A and 30% effort on Project B. The Principal Investigator uses lab supplies totaling \$6,000/month on the two projects. Project A should be charged \$4,200 (70% of \$6,000) and Project B should be charged \$1,800 (30% of \$6,000).

Allocation based on square footage:

The salary of a student assistant cleaning glassware in two laboratories that are conducting similar research proportionately allocated based upon the square footage of the two laboratories.

A student is paid a salary of \$1,200 a month to clean glassware in two laboratories that are conducting similar research. Note: The only research performed in Lab A is on Grant A and the only research performed in Lab B is research on Grant B. In this example, the square footage of the laboratories could be used as a reasonable basis. Lab A is 1,400 square feet and Lab B is 1,000 square feet. Lab A should be charged \$700 (1,400-sq. ft/2,400 sq. ft x \$1,200) and Lab B should be charged \$500 (1,000-sq. Ft/2,400 sq. ft x \$1,200).

Allocation based on FTEs:

The cost of renting space allocated based upon the number of FTEs working on each project.

There are 5 FTEs employed on Project A and 8.5 FTEs employed on project B. The Center for Penguin Research is located in Alaska (off campus) and pays \$5,500 in rent each month. These are the only two grants that are performed and managed at this site. Project A should be charged \$2,037.04 ($5/13.5 \times \$5,500$) and Project B should be charged \$3,462.96 ($8.5/13.5 \times \$5,500$).