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Recharge Basics
Rate Development

Recharge Review
Budget & Resource Management

This module will help you understand how to calculate **recharge rates** based on **allowable costs**

Topics

- Service units
- Basic rate calculation and methodology
- Change in rate methodology
- Billable hours and hourly rate calculation
- Depreciation expense calculation
- External rate calculation
- Facilities and Administration rate for recharges
- Surplus revenue
- Surpluses and deficits
- Working capital
- Subsidies

Products or services provided by recharge activities must have **service units** that are the basis for charging customers

Service units should be identifiable, measurable, and reasonable, and may be based on:

Volume
(per test, per gram)

Labor
(per hour)

Proportional Distribution
(per square foot, per FTE)

Or a combination of some or all of the above

A **recharge rate** is a price per unit calculated based on the total **allowable costs** and the number of **service units**

Basic Rate Calculation Methodology

$$\frac{\$ \text{ Planned Cost of Providing Products/Services}}{\# \text{ Planned Number of Service Units to be Provided}} = \text{Recharge Rate per unit}$$

Note: A rate may be a formula rather than a price. For example:

"(Actual monthly expense / total assigned square footage) x user's assigned square footage"

In this **basic rate calculation**, the **rate per slide** is calculated based on the **total costs** divided by the **projected volume** (number of slides)

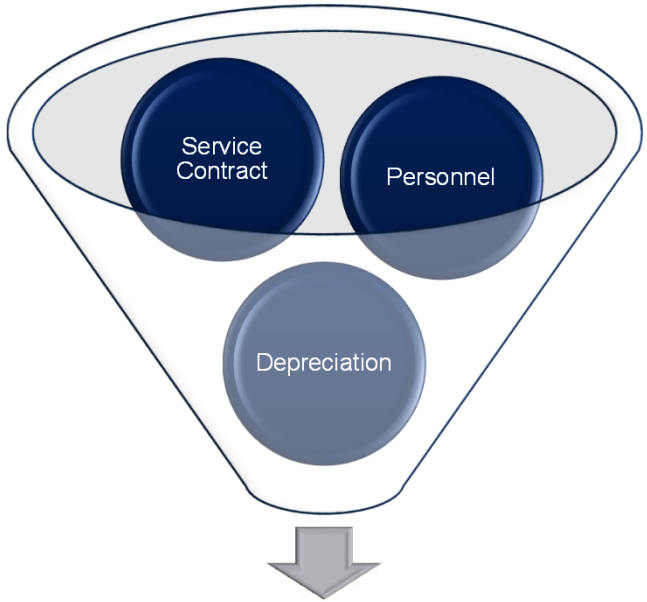
Microscope Recharge Cost Pool

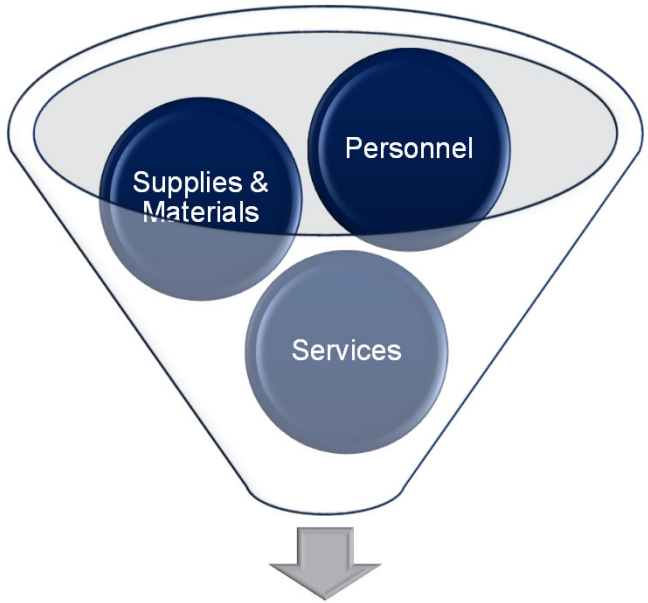
Salary	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 10,000
Equipment Depreciation	$ 3,125
Total Cost	**$ 23,525**
Projected Volume (# of slides)	**500**
Base Rate per Slide	**$ 47.05**

A recharge activity may provide one or more product or service, and have a distinct service unit, cost structure, and rate for each product or service

Service units should accurately reflect:

- Resources and costs necessary to produce the product or provide the service
- Extent of the benefit received by the user





$$\frac{\text{Service A Costs \$}}{\text{Service A Units \#}} = \text{Rate A}$$

$$\frac{\text{Service B Costs \$}}{\text{Service B Units \#}} = \text{Rate B}$$

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This basic rate methodology includes **directly assigned costs** and the **allocation of joint costs** between two products provided by the same recharge activity

	Directly Assigned		Joint Costs	
Description	**Product A**	**Product B**	**Recharge Admin.**	**Total Plan**
Salaries and Benefits	2,500	3,500	2,000	8,000
Supplies and Other Operating Expenses	500	1,000	500	2,000
Subtotal	**$3,000**	**$4,500**	**$2,500**	**$10,000**
# of Service Units	**150**	**100**		**250**
Recharge Administration Allocation Percentage[1]	**60%**	**40%**		**100%**
Recharge Administration Allocation	$1,500	$1,000	$(2,500)	
Total Cost	**$4,500**	**$5,500**	**$ -**	**$10,000**
Cost per Unit (Recharge Rate)	**$30**	**$55**	**Total Product Costs = Total Revenue**	
Total Revenue (Recharge Rate x # of Service Units)	**$4,500**	**$5,500**		**$10,000**

[1]Recharge Administration Allocation Percentage is calculated based on the proportion of each product's volume to the total of both products' volume.

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A change in rate methodology occurs when:

- A **unit of service** used to calculate the rate **is changed** to a different unit of service
  - For example: The service unit that was based on volume representing a per unit rate changed to a service unit based on labor representing a per hour rate
- There is **a change in the way the joint or overhead costs are allocated** among the various service items or products within a recharge
  - For example: The overhead cost allocation that was distributed based on FTE counts changed to an allocation based on assignable square footage

When the rate calculation is based on a per hour labor service unit the rate per hour should only reflect the employee's billable time

Example:

Standard FTE annual working hours:	2,088
Deduct unbillable hours:	
Vacation Leave:	(120)
Sick Leave:	(96)
Holiday Leave:	(112)
Administrative Time:	(40)
Total Unbillable Hours:	(368)
Billable Hours:	**1,720**

Hourly rates should be calculated based on total costs divided by annual **billable hours** in order to recover the full cost of providing service

Microscope Cost Pool:

Salary (20% FTE)	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 10,000
Equipment Depreciation	$ 3,125
Total Cost	**$ 23,525**

Billable Hours Calculation:

Title	Annual* Hours	Less Vacation	Less Sick	Less Holiday	Less Admin Time	Total Billable Hours	% FTE to Recharge	Total Billable Hours to Recharge
SRA I	2,088	(120)	(96)	(112)	(48)	1,712	x 20%	= **342.4**

Rate Methodology: Total Expenses / Billable Hours = Rate per Hour

Rate Calculation: $ **23,525** / **342.4** hours = $ **68.71** per hour

*If the rate was calculated based on the total annual hours (both billable and unbillable), the rate would be too low and not recover the full cost

Equipment depreciation calculation

Calculate the annual equipment depreciation on a straight line basis using the full cost and the useful life

Microscope purchased at a full cost of:	$25,000
Useful Life:	8 years
Annual Depreciation:	**$ 3,125**

Include annual equipment depreciation expense in the total costs for recharge rate calculation

Salary	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 5,000
Maintenance Contract	$ 5,000
Equipment Depreciation	$ 3,125
Total Costs	**$ 23,525**

Transfer to reserve fund annually

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To determine the useful life for equipment, complete the following steps:

1. Using the 9-digit Asset Tag Number, locate the Profile ID of the asset by running the Asset Management Report in MyReports

Asset Tag ID	Asset ID	Custody Code	Custodian	Acquisition Date	Profile ID	Location	Location Desc	Business Unit	Fund
092000034	999092000150	4280		12/16/08	E6520	2316531	1450	SFCMP	5018

2. Use the Profile ID (EQ Code) to look up the useful life in the UCOP Useful Life Indices for Equipment Depreciation under the EQ Code Sequence Index listings by EQ code groupings

EQ Code Sequence Index

Listings by EQ code groupings.

E ▼ GO

EQ Code	Life	Description
E6520	10	CAGES & BATTERIES, LAB, ENCLOSED CHAMBERS, RACKS, & ACCESS

For useful life for all other asset categories, refer to UCOP Accounting Manual: Plant Accounting Investment in Plant-Depreciation P-415-3.1

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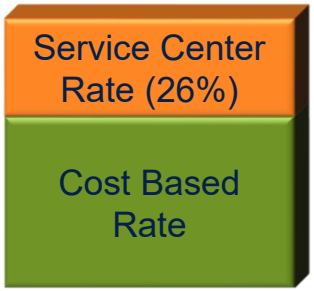
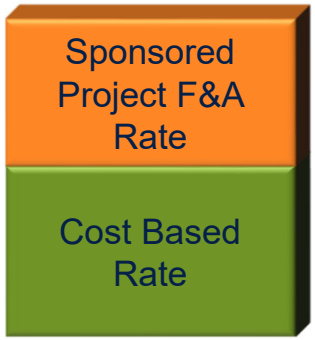
Recharges to external users must include the applicable Facilities and Administration (F&A) Rate

- The F&A rate for recharges is the **Service Center Rate** (**26%**) which is applied as a mark-up to internal (cost-based) rates
- **If the recharge is a program income activity**, the F&A rate on the associated sponsored project is charged instead of the service center rate

Recharge Activity External Users



Program Income Activity External Users

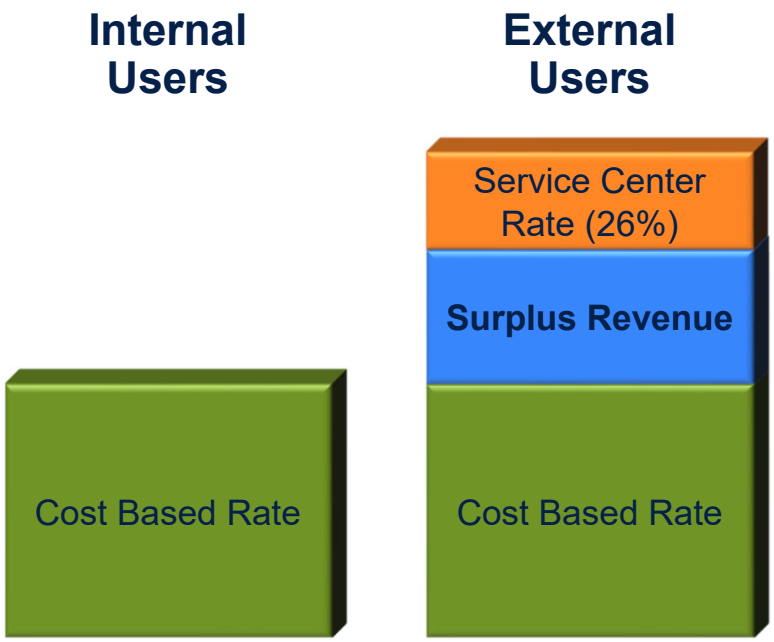


This example illustrates how to **calculate an external rate** by applying the 26% F&A rate on top of the base internal rate per slide

Salary	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 10,000
Equipment Depreciation	$ 3,125
Total Cost	**$ 23,525**
Projected Volume (# of slides)	**500**
Base (Internal) Rate per Slide	**$ 47.05**

26% F&A	**$ 12.23**
External Rate per Slide	**$ 59.28**

External users may be charged **surplus revenue**, which is a mark-up in excess of full direct costs



Surplus revenue may be:

- Retained in the recharge operating chartstring as an offset to expenses
- Transferred to the associated Renewal and Replacement Reserve Fund to be used to make capital purchases to support the recharge activity
- Transferred to a Surplus Revenue Reserve project associated with the recharge to be used in a manner that supports the recharge activity

Calculation of external recharge rate including surplus revenue

Salary	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 10,000
Equipment Depreciation	$ 3,125
Total Cost	**$ 23,525**
Projected Volume (# of slides)	**500**
Base (Internal) Rate per Slide	**$ 47.05**
Surplus Revenue per Slide	**$ 2.95**
Subtotal (Base Rate plus Surplus Revenue)	**$ 50.00**
26% F&A	**$ 13.00**
External Rate per Slide	**$ 63.00**

The actual or projected surplus or deficit must be included in the following year's rate calculation

Surplus	Deficit
will **reduce** the following year's cost pool and, therefore, the rate	will **increase** the following year's cost pool and, therefore, the rate

- For recharges with more than one service, **reconciliation** of the **prior year balance** is necessary for each service to ensure the **surplus** from one product or service **is not** used to offset the **deficit** from another
- A **surplus** or **deficit** may be amortized over a 2 or 3-year period to lessen the impact on the following year's rates
- **Surpluses** **may not** be transferred out of a recharge activity without prior approval from Recharge Review, Budget & Resource Management

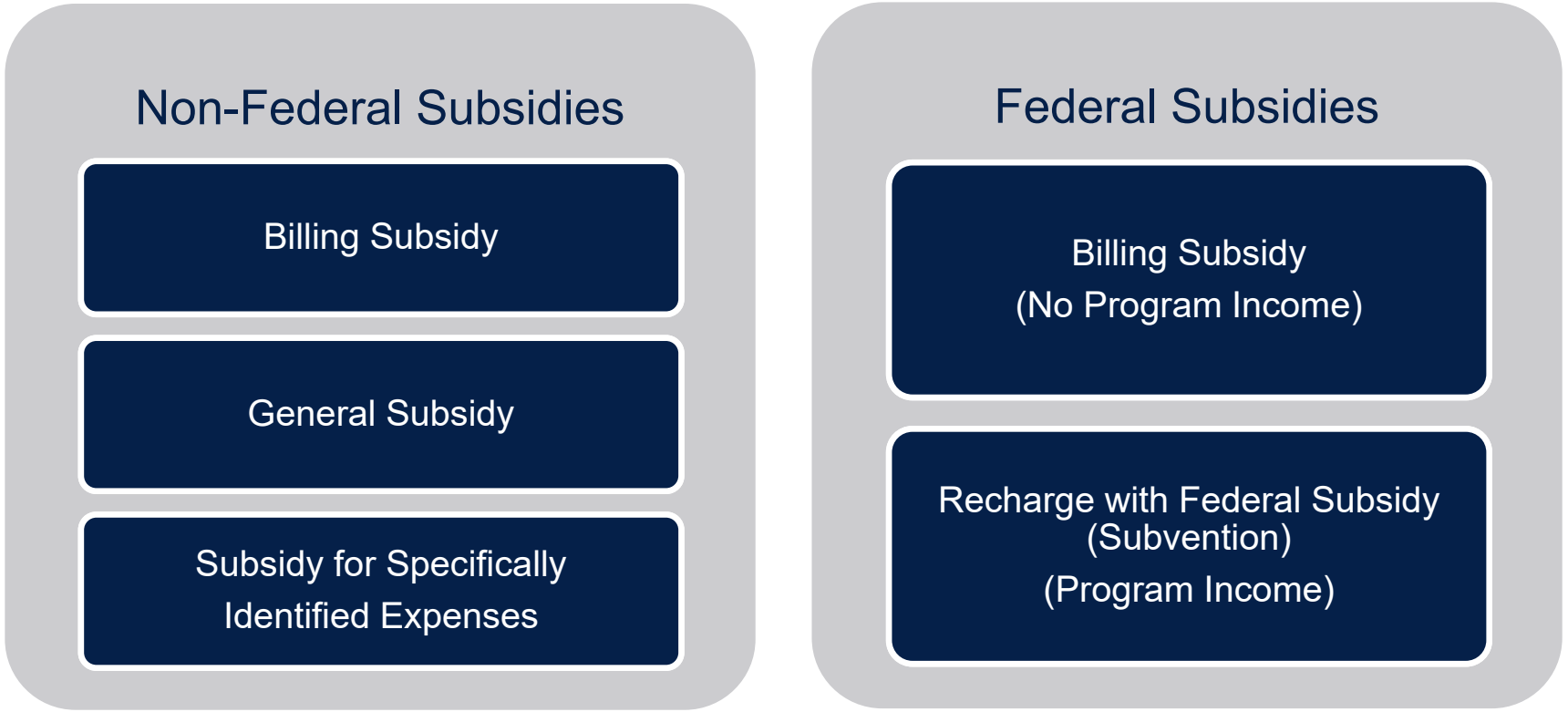
In addition to operating costs related to the recharge, a **working capital reserve** of up to two months of expense (16.6% of the annual plan) may be included in the rate calculation

In this example, a working capital reserve of 12% (in relation to the planned expenses) is built into the rate in order to prevent a deficit:

Salary	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 10,000
Equipment Depreciation	$ 3,125
Subtotal	**$ 23,525**

Working Capital (12%)	**$ 2,823**
Total Cost	**$ 26,348**
Projected Volume (# of slides)	**500**
Rate per Slide	**$ 52.70**

Recharge activities may be subsidized from other funding sources and may be applied in the following ways:



Subsidies may not be used to discriminate among recharge users, but rates may be subsidized as described

- All users **must be charged the same rate** whether paid for directly by the user or from another funding source used as a subsidy
- The amount, funding source, and purpose of all subsidies must be clearly identified in the recharge proposal
- Subsidies should not typically be applied to external rates, unless the subsidy source specifically provides for the subsidy to be applied in that manner

When applying a general subsidy to the rate calculation, the recharge activity's annual plan is reduced by the subsidy amount

In this example,

- the Total Cost is reduced by the subsidy amount of $8,525 to compute the Subsidized Rate per Slide
- applying this subsidy reduces the rate from $47.05 to $30.00 per slide for all users

Salary	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 10,000
Equipment Depreciation	$ 3,125
Total Cost	**$ 23,525**
Projected Volume (# of slides)	**500**
Base Rate per Slide	**$ 47.05**

Total Cost	$ 23,525
Subsidy	$ (8,525)
Adjusted Total Cost	$ 15,000
Projected Volume (# of slides)	500
Subsidized Rate per slide	$ 30.00

When applying a billing subsidy, the calculated rate is split between the user chartstring and the subsidy chartstring

In this example, the recharge activity's billing rate is subsidized by a federal fund source for federal users only. All other users are charged the full cost-based rate.

Cost pool and Base Rate per Slide Calculation

Salary	$ 8,000
Benefits	$ 2,400
Non-Salary Expense	$ 10,000
Equipment Depreciation	$ 3,125
Total Cost	**$ 23,525**
Projected Volume (# of slides)	**500**
Base Rate per Slide	**$ 47.05**

Per Slide Billing Subsidy Application for Federal Users

The full $47.05 rate is billed, but a portion of the rate ($30.00) is charged to the federal user and the subsidy portion ($17.05) is charged to the subsidy chartstring.

Federal User Chartstring	$ 30.00
Subsidy Charstring	$ 17.05
Total Rate	**$ 47.05**

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