



# Cost Principles

- Cost Considerations
- Types of Costs

CRA Review



# **UG 2CFR Part 200**

## **Subpart E Cost Principles 200.400-475 & Appendices III - IX**

- ☐ **Appendix III to Indirect Costs for (IHEs)**
- ☐ Appendix IV Indirect Costs for Nonprofit
- ☐ Appendix V Costs for State/Local Government
- ☐ Appendix VI Costs for State Public Assistance
- ☐ Appendix VII Indirect Costs for States and Local Government and Indian Tribes
- ☐ Appendix VIII List of Nonprofit Organizations
- ☐ Appendix IX Hospital Cost Principles (45CFR Part 75 Appendix E)




# Policy Guidance

- The non-Federal entity has the primary responsibility for employing whatever form of sound organization and management techniques may be necessary in order to assure proper and efficient administration of the Federal award.
- Application of these cost principles should require no significant changes in the internal accounting policies and practices of the non-Federal entity.



# Policy Guidance

- For non-Federal entities that educate and engage students in research, the dual role of students as both trainees and employees (including pre- and post-doctoral staff) contributing to the completion of Federal awards for research must be recognized in the application of these principles.
- Non-Federal entity may not earn or keep any profit resulting from Federal financial assistance



# These Cost Principles do not apply to federal financing in the form of:

- Scholarships, fellowships, traineeships or other fixed amounts based on education allowance or published tuition rates/fees.
- Awards based on case counts or number of beneficiaries
- Fixed amount awards
- Federal awards to hospitals see Appendix IX to Part 200—Hospital Cost Principles
- Exempt non-profits that operate similar to for-profits. List is in Appendix VIII.



# Criteria that Must be Met

- Allowable = Sponsor guidelines
- Reasonable = “Prudent person” test
- Allocable = The items charged to a project should benefit that project
- Consistently treated = Treating like costs the same in like circumstances



# UG 200.403 Factors Affecting the Allowability of Costs

- The tests of allowability of costs under these principles are:
  - a) they must be reasonable;
  - b) they must be allocable to sponsored agreements;
  - c) they must be given consistent treatment ... appropriate to the circumstances;
  - d) they must conform to any limitations or exclusions set forth in these principles or in the sponsored agreement



# UG 200.404 Reasonable Cost

- A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent
- person under the circumstances prevailing at the time the decision was made to incur the cost.





# Reasonable Cost Considerations

- Market prices for comparable goods or services for the geographic area.
- Whether the individuals concerned acted with prudence in the circumstances considering their responsibilities.
- Whether the non-Federal entity significantly deviates from its established practices and policies.



# UG 200.405 Allocable Costs

- A cost is allocable to a particular cost objective (project), if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received
  1. it is incurred specifically for the work under the sponsored agreement;
  2. it benefits both the sponsored agreement and other work of the institution, in proportions that can be approximated through use of reasonable methods, or
  3. it is necessary to the overall operation of the institution and is assignable in part to the award.




# Consistency

- It is essential that each item of cost incurred for the same purpose be treated consistently in like circumstances either as a direct or an indirect (F&A) cost in order to avoid possible double-charging of Federal awards.



# UG 200.419 Cost Accounting Standards (CAS) and Disclosure Statement

- IHE that receives \$50 million or more in Federal awards in a fiscal year
- must comply with the CASB's CAS located at 48 CFR 9905.501, 9905.502, 9905.505, and 9905.506.
- must disclose their cost accounting practices by filing a Disclosure Statement (DS-2)

- 
- 9905.501 requires consistency in estimating, accumulating and reporting costs.
  - 9905.502 requires consistency in allocating costs incurred for the same purpose
  - 9905.505 requires proper treatment of unallowable costs
  - 9905.506 requires consistency in the accounting periods used for cost accounting



# UG 200.413 Direct Costs

- Direct costs are those costs that can be identified specifically with a particular final cost objective, such as a Federal award.
- Or that can be directly assigned to such activities relatively easily with a high degree of accuracy.



# Direct Costs

- Cost directly associated with a sponsored project
  - Personnel (salary, wages and associated fringe benefits)
  - Capital Equipment
  - Travel
  - Patient Care Costs
  - Participant Support Costs
  - Subcontracts
  - Other Direct Costs



# UG 200.430 Institutional Base Salary


- IBS is defined as the annual compensation paid by an IHE for an individual's appointment.
- IBS excludes any income that an individual earns outside of duties performed for the IHE.
- Charges must not exceed the proportionate share of the IBS.
- In unusual cases for consultation across departmental lines or separate or remote location and work is in addition to regular responsibilities, may allow additional pay.
- Effort reporting system






# **Documentation of Personnel Expenses (Effort Reporting)**

- Charges to Federal awards for salaries and wages must be based on records that accurately reflect the work performed.
- Be supported by a system of internal control which provides reasonable assurance that the charges are accurate, allowable, and properly allocated;

- 
- Because practices vary as to the activity constituting a full workload (for IHEs, IBS), records may reflect categories of activities expressed as a percentage distribution of total activities.
  - It is recognized that teaching, research, service, and administration are often inextricably intermingled in an academic setting. When recording salaries and wages charged to Federal awards for IHEs, a precise assessment of factors that contribute to costs is therefore not always feasible, nor is it expected.

- 
- Salaries and wages of employees used in meeting cost sharing or matching requirements on Federal awards must be supported in the same manner as salaries and wages claimed for reimbursement from Federal awards.



# Salaries of Administrative and Clerical Staff

- Should normally be treated as indirect (F&A) costs.
- Direct charging of these costs may be appropriate only if all of the following conditions are met:
  1. Integral to a project or activity
  2. Individuals involved can be specifically identified with the project or activity;
  3. Costs are explicitly included in the budget or have the prior written approval of the awarding agency.
  4. Costs are not also recovered as indirect costs



# UG 200.431 Fringe Benefits / Rate

- Salary and Wages x fringe rate percentage = fringe benefits
- FICA
- Retirement
- Worker's compensation
- Life Insurance
- Unemployment Insurance
- Health Insurance
- Accrued Compensated Absences



# UG 200.439 Equipment

- *Equipment* means tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-Federal entity for financial statement purposes, or \$5,000.
- General purpose equipment
- Special purpose equipment
- May include transportation costs



# UG 200.453 Computing Devices

- *Def 200.20 Computing devices* means machines used to acquire, store, analyze, process, and publish data and other information electronically, including accessories (or “peripherals”) for printing, transmitting and receiving, or storing electronic information.
- A computing device is a supply if the acquisition costs is less than \$5,000.
- They do not have to be solely dedicated to the performance of a Federal award.



# UG 200.474 Travel Costs

- transportation, lodging, subsistence, and related items incurred by employees
- may be charged on an actual cost basis, on a per diem or mileage basis in lieu of actual costs incurred, or on a combination.
- General Services Administration (GSA) published rates





# Commercial Air Travel

Airfare costs in excess of the basic least expensive unrestricted accommodations class offered by commercial airlines are unallowable except when such accommodations would:

- (i) Require circuitous routing;
- (ii) Require travel during unreasonable hours;
- (iii) Excessively prolong travel;
- (iv) Result in additional costs that would offset the transportation savings; or
- (v) Offer accommodations not reasonably adequate for the traveler's medical needs.



# UG: 200.474 Dependent Care During Conferences

- Temporary dependent care costs above and beyond regular dependent care that directly results from travel to conferences is allowable provided that
  - i) The costs are a direct result of the individual's travel for the Federal award;
  - (ii) The costs are consistent with the non-Federal entity's documented travel policy for all entity travel; and
  - (iii) Are only temporary during the travel period



# UG 200.461 Publication and Printing Costs

- Publication costs for electronic and print media, are allowable.
- Page charges for professional journal publications are allowable where:
  - (1) The publications report work supported by the Federal Government; and
  - (2) The charges are levied impartially on all items published by the journal, whether or not under a Federal award.
  - (3) The non-Federal entity may charge the Federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the Federal award.



# UG 200.75

## **Participant Support Costs**

- Direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with conferences, or training projects.
- **Requires Prior Agency Approval**
- **F&A is not charged on these costs**



# Patient Care Costs

- Costs directly related to treatment required for research
  - ☐ Does not include personal expense reimbursement (such as travel, per diem, lodging)
- Details needed
  - ☐ Outpatient or Inpatient?
  - ☐ Number of patients
  - ☐ Frequency and number procedures performed



# UG 200.468

## Specialized Service Facilities

- Examples: computing facilities, wind tunnels, reactors
- Costs must be charged directly to applicable awards based on actual usage of the services on the basis of a schedule of rates or established methodology that:
  - Does not discriminate between activities under Federal awards and other activities of the non-Federal entity
  - Is designed to recover only the aggregate costs of the services



# UG 200.92 Sub-Awards

- *Subaward* means an award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a Federal award received by the pass-through entity.
- Agreement where a third party will perform part of the activities defined in the proposal
  1. SRS Sub-Commitment Form
  2. Statement of work to be performed by sub-awardees
  3. Budget
  4. Budget Justification

# Sub-Recipient (Sub-Awardee)

- The Sub-recipient will be included as a co-author on any publications
- Formal proposal signed by authorized representative with a statement of work and budget are required
- F&A is charged on the first \$25,000
- Example using a 48.5% NICRA

	Year 1	Year 2	
Year 3			
Sub A	10k	5k	15k
Sub B	0k	25k	5k
<hr/>			
F&A Sub A	\$4,850	\$2,425	\$4,850
F&A Sub B	\$0	\$12,125	\$0





# UG 200.23 Def: Contractor


- *200.22 Contract* means a legal instrument by which a non-Federal entity purchases property or services needed to carry out the project or program under a Federal award.
- Providing goods and services
- Not subject to the award requirements
- F&A charged on full amount



# UG 200.466 Tuition

Tuition paid as, or in lieu of, wages to students performing necessary work is allowable provided that --

- (1) The individual is conducting activities necessary to the federal award;
- (2) Tuition remission and other support are provided in accordance with established policy of the IHE and consistently provided in a like manner to students in return for similar activities conducted under federal awards as well as other activities; and
- (3) During the academic period, the student is enrolled in an advanced degree program at the institution or affiliated institution and the activities of the student in relation to the Federally sponsored research project are related to the degree program;
- (4) the tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work; and
- (5) it is the IHE's practice to similarly compensate students under federal awards as well as other activities.



# **UG200.420**

## **Unallowable Cost Items**

- **\*Advertising and public relations**
- **Advisory councils**
- **Alcoholic beverages**
- **Alumni activities**
- **Bad debts**
- **Entertainment costs**
- **Fines, penalties**
- **Fund raising**
- **Lobbying**



# UG 200.68 Modified Total Direct Costs (MTDC)

Subset of direct costs on which indirect is charged

- Direct Costs that DO NOT get charged Indirect Costs:
  - Capital equipment
  - Participant Support
  - Patient Care Cost
  - Tuition
  - Rent (off-site locations)
  - Scholarships and fellowships
  - Subrecipient charges after first 25k



## UG 200.56 Indirect (Facilities & Administrative(F&A)) Costs

- *Indirect (F&A) costs* means those costs incurred for a common or joint purpose benefitting more than one cost objective, and not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved.
- To facilitate equitable distribution of indirect expenses to the cost objectives served, it may be necessary to establish a number of pools of indirect (F&A) costs.
- Indirect (F&A) cost pools must be distributed to benefitted cost objectives on bases that will produce an equitable result in consideration of relative benefits derived



# UG 200.414 Indirect (F&A) Costs

- “Facilities” components include:
  - depreciation on buildings, equipment and capital improvement
  - interest on debt associated with certain buildings, equipment and capital improvements
  - operations and maintenance expenses
  - library



# UG 200.436 Depreciation

- Depreciation is the method for allocating the cost of fixed assets to periods benefitting from asset use.
- The non-Federal entity may be compensated for the use of its buildings, capital improvements, equipment, and software projects capitalized in accordance with GAAP, provided that they are used, needed in the non-Federal entity's activities, and properly allocated to Federal awards.
- Period of useful life must be established.
- In the absence of clear evidence indicating that the expected consumption of the asset will be significantly greater in the early portions than in the later portions of its useful life, the straight-line method must be presumed to be the appropriate method.



# Indirect (F&A) Costs

- “Administration” capped at 26% of MTDC includes:
  - general administration and general expenses such as the director's office, accounting, personnel
  - departmental administration
  - sponsored project administration
  - student administration and services and all other types of expenditures not listed specifically under one of the subcategories of “Facilities”





# **UG Appendix III - Major Functions of an Institution**

- Instruction
- Organized research
- Other sponsored activities
- Other institutional activities as defined in the UG & the circulars



# Definitions: Instruction

**Instruction** means the teaching and training activities of an institution.

1. Sponsored instruction and training means specific instructional or training activity established by grant, contract, or cooperative agreement.
2. Departmental research means research, development and scholarly activities that are not organized research and, consequently, are not separately budgeted and accounted for.



# Definitions: Organized Research

- **Organized research** means all research and development activities of an institution that are separately budgeted and accounted for.
  1. Sponsored research means all research and development activities that are sponsored by Federal and non-Federal agencies and organizations.
  2. University research means all research and development activities that are separately budgeted and accounted for by the institution under an internal application of institutional funds.



# Treatment of Cost Share

- Only mandatory cost sharing or cost sharing specifically required to be committed in the project budget must be included in the organized research base for computing the indirect (F&A) cost rate or reflected in any allocation of indirect costs.
- Salary costs above statutory limits are not considered cost sharing.



# Definitions:

## Other Sponsored Activities

- **Other Sponsored Activities** means programs and projects financed by Federal and non-Federal agencies and organizations which involve the performance of work other than instruction and organized research.
- Examples; health or community service projects



# Definitions:

## Other Institutional Activities

- **Other institutional activities** means all activities of an institution except:
  1. instruction, departmental research, organized research, and other sponsored activities
- Includes operation of residence halls, dining halls, hospitals and clinics, student unions and similar auxiliary enterprises.
- Includes costs of which are "**unallowable**" to federal awards



# Cost Accounting Period

- Institutions should use their fiscal year as their cost accounting period.
- The same cost accounting period shall be used for accumulating costs in a F&A cost pool as for establishing its allocation base, except that the Federal Government and educational institution may agree to use a different period for establishing an allocation base.



# Methods of F&A Calculation

## For Non-Profits

- Direct Allocation
- Multiple Allocation
- Simplified

## For Universities

- Standard (Long Form)
- Simplified
  - Salaries and Wages Base
  - Modified Total Direct Cost Base





# Direct Allocation Method For Non-Profit Organizations

- Utilized when an organization treats all costs as direct costs, except general administration and general expense
- Separates all costs into 3 categories
  - general administration and general expense
  - Fundraising
  - Other direct functions – including projects performed under federal awards
- Excludes internal service revenue where one service department is providing services to another department.



# Multiple Allocation Method For Non-Profit Organizations

- Utilized when an organization determines its major functions benefit from its indirect costs in varying degrees
- Separates indirect costs into pools and allocates each pool to the varying functions based on their relative benefit to the pool. This method does not exclude internal service revenue
- Assignment of cost pools should be based on:
  - Level of benefit to applicable pool
  - Logic and reason



# **Simplified Method**

## **For Non-Profit and IHE Organizations**

- Utilized when an organization's major functions benefit from its indirect costs at approximately the same degree
- Determined by dividing the total allowable indirect by an equitable distribution base.
- To be used by organizations where the level of federal awards is small, or if they have only one major function encompassing multiple projects or activities. (\$10M or less of federal funding of direct costs in a fiscal year)



# Salary and Wages Base vs. Modified Total Direct Costs Base

For Universities

## Salary & Wages base

- Establish the total amount of S&W paid to all employees of the institution
- Establish an F&A cost pool of the expenditures customarily classified in:
  - General Administration and General Expenses
  - Operation & Maintenance of Physical Plant and Depreciation
  - Library
  - Department Administration Expenses

## Modified Total Direct Cost Base

- Establish the total cost incurred by the institution
- Establish an F&A cost pool of the expenditures customarily classified in:
  - General Administration and General Expenses
  - Operation & Maintenance of Physical Plant and Depreciation
  - Library
  - Department Administration Expenses



# Establishment of Rates

- Begin with your financial statement
- Adjust to Modified Total Direct Costs
- Assign expenditures to cost pools
- Remove unallowable costs from pools
- Allocate pools to major functions
- Calculate rates
- Prepare the Indirect Cost Rate Proposal and submit it to your cognizant agency
- Rate Negotiation



# Space Surveys

- Space related costs are allocated to buildings and then to units on the basis of assigned square footage, then to function by a space survey
- Used to calculate the % of space that is used to support Organized Research
- Used to allocate Building and Equipment Depreciation, Interest and O&M

# FACILITIES & ADMINISTRATIVE COST CALCULATION

## F&A Cost Pools

Allocation  
Bases

F&A Costs  
Allocated To

Distribution  
Base

F&A Cost  
Rates

Building &  
Equipment  
Depreciation

SPACE

Interest

SPACE

Operations &  
Maintenance

SPACE

General  
Administration

MTC

Department  
Administration

MTDC

Sponsored  
Project  
Administration

MTDC

Library

Population /  
FTE

Instruction and  
Departmental  
Research

/

MTDC  
Instruction &  
Departmental  
Research

=

%

Organized  
Research

/

MTDC  
Organized  
Research

=

%

Other Sponsored  
Activities

/

MTDC  
Other Sponsored  
Activities

=

%

Other  
Institutional  
Activities



# F&A Rate Calculations

- Numerator Expenses

F&A (indirect) cost of the organization

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- Denominator Expenses

Total expenditures, based on MTDC

F&A Costs

—————

Total Costs

= F&A Rate





# Rate Increase / Decrease Factors

## ■ Rate increase

- A university's research grants stay relatively flat or decrease over a period of time
- A university's F&A cost increase significantly over a period of time.

## ■ Rate decrease

- A university's research grants increase at a rapid rate pace over time (includes cost share)
- A university's F&A cost stay relatively flat or decrease over a period of time



# UG 200.414 de minimis rate

- Non-Federal entity that has never received a negotiated indirect cost rate
- may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC)



# Predetermined Rate

- Predetermined rate – Preferred method
- Negotiated for period of 2 to 4 yrs
- Used where the cost experience are deemed sufficient to enable the parties involved to reach an informed judgment as to the probable level of F&A costs during the ensuing accounting periods.
- Not subject to adjustment



# Provisional and Final Rates

## Provisional

- A temporary IDC rate; applicable to a specified period pending the establishment of a final rate for that period.

## Final rate

- An IDC rate applicable to a specified past period which is based on actual costs of the period.



# Fixed Rates

Indirect cost rate with the same characteristics as a predetermined rate, except that the difference between the estimated costs and the actual costs of the period covered by the rate is carried forward as an adjustment to the rate computation of a subsequent period.

Fixed rates may be negotiated where predetermined rates are not considered appropriate



# **Rates for the Life of the Sponsored Agreement**

- UG Appendix III Section C.7
- Federal agencies shall use the negotiated rates for F&A costs in effect at the time of the initial award throughout the life of the federal award.
- "Life" for the purpose of this subsection means each competitive segment of a project. A competitive segment is a period of years approved by the Federal agency at the time of the award



# F&A Rate Negotiation

- Cognizant agency assignments: "A cognizant agency" means the Federal agency responsible for negotiating and approving F&A rates for an educational institution on behalf of all Federal agencies.
- Either DHHS or ONR normally depending on which agency provides more funds to the educational institution for the most recent three years



# Acceptance of IDC Rate

- Negotiated rates must be accepted by all Federal awarding agencies.
- agency may use a rate different from the negotiated rate only when required by Federal statute or regulation.
- or when approved by a Federal awarding agency head.





# On-Campus vs. Off-Campus

- On-Campus
  - organized research
  - instruction
  - other sponsored activity
- Off-Campus definition: for all activities performed in facilities not owned by the institution and to which rent is directly allocated to the projects(s).
  - Off campus – all programs
  - The off campus rate only includes the administration portion of the F&A rate.





A researcher is proposing a budget to NSF for only \$50,000 in equipment. The Indirect Rate is 46%. How much money will be available for equipment?

A. \$22,750

B. \$27,250

C. \$50,000

D. \$24,000

C. \$50,000

No indirect is charged on equipment



## **How to calculate indirect costs based on Total Project Costs (TPC) or Total Funds requested**

The easiest way to do this calculation is to first convert the TPC rate to a TDC rate using the following formula:

Example: Sponsor limits the F&A costs on the proposals to 20% of the Total Funds requested

$\text{TPC indirect rate} / (1 - \text{TPC indirect rate}) = \text{TDC rate}$  (ex. 20% TPC =  $20\% / (1 - 20\%) = 25\%$ )

$100 - 20 = 80$ ;  $20/80 = 25\%$

Therefore, 25% would be the actual IDC rate calculated on Total Direct Costs.

XYZ University has an indirect cost rate of 45.5%. A project is budgeted at \$125,000 in direct costs and includes permanent equipment at \$30,000 which is the only item excluded from the indirect cost base. What are the total project costs?

A. \$195,525

B. \$168,225

C. \$181,875

D. \$246,000

B. \$168,225

- $\$125,000 \text{ (Direct Costs)} - \$30,000 \text{ (Permanent Equipment)} = \$95,000$
- $\text{Modified Total Direct Costs} = \$95,000$
- $\$95,000 \text{ (MTDC)} * 45.5\% \text{ (Indirect Rate)} = \$43,225 \text{ (F\&A Costs)}$
- $\$125,000 \text{ (direct costs)} + \$43,225 \text{ (F\&A Costs)} = \$168,225 \text{ Total Project Costs}$

The University of Chicago is going to be sub-recipient on a budget where Michigan State is the lead institution. The total direct costs of the budget are \$150,000 and the University of Chicago will be receiving \$30,000. F&A rate is 45.5% MTDC. What will be the total project costs?

A. \$185,975

B. \$215,975

C. \$188,250

D. \$218,250

B. \$215,975

- $\$150,000(\text{total direct costs}) - \$30,000(\text{sub-recipient}) = \$120,000(\text{UC direct costs})$
- $\$120,000 (\text{UC DC}) * 45.5\% (\text{Indirect Rate}) = \$54,600 (\text{F\&A on UC DC})$
- Allowable Indirect Rate charge on subaward (first \$25k)  
 $\$25,000 * 45.5\% (\text{Indirect Rate}) = \$11,375 (\text{F\&A on Sub-Recipient})$
- $\$150,000 (\text{direct costs})$   
 $\$54,600 (\text{F\&A on UC DC})$   
 $+ \$11,375 (\text{F\&A on Sub})$   
 $\$215,975 \text{ Total Project Costs}$



**Calculate the Indirect Rate for a university using modified total direct costs of \$75,000 and total project costs of \$100,000.**

**A. 33.33%**

**B. 25.00%**

**C. 30.50%**

**D. 29.55%**

A. 33.33%

- $\text{MTDC} * \text{Indirect Rate} = \text{F\&A Costs}$   
 $\text{F\&A Costs} + \text{Modified Total Direct Costs} = \text{Total Project Costs}$
- $\$75,000 (\text{MTDC}) * \text{Indirect Rate} = \text{F\&A Costs}$   
 $\text{F\&A Costs} + \$75,000 (\text{MTDC}) = \$100,000 \text{ Total Project Costs}$   
 $\text{F\&A Costs} = \$25,000$
- $\$75,000 * \text{Indirect Rate} = \$25,000$   
 $\text{Indirect Rate} = 33.33\%$



**A sponsor requires 5% cost-sharing of the institution on the project. It is determined the institution can only cost-share \$5,000. How much can you request from the Sponsor?**

**A. \$95,000**

**B. \$105,000**

**C. \$100,000**

**D. \$90,000**

**C. \$100,000**

- $\$5,000 / .05 = \$100,000$
- $\$100,000 \times 5\% = \$5,000$





**This DOE solicitation requires cost sharing – 20% of Total Project Costs. Total Sponsor Costs (federal dollars) are \$300,000. What is the Total Cost Sharing amount required ?**

**A. \$75,000**


**B. \$65,000**

**C. \$60,000**

**D. \$72,500**

A. \$75,000

- X = Cost Sharing % required (20%)  
Y = Portion of Total Project Cost requested from Sponsor/Agency (80%)  
Z = Cost Share multiplier (25%)
- 100% - 20% (X) = 80% (Y)  
20% (X) / 80% (Y) = 25% (Z)  
\$300,000 x 25% = \$75,000 (Cost Sharing Amount Required)



A researcher has permission to rebudget \$75,000 from equipment into a research associate salary. If the institutions indirect cost rate (based on MTDC) is 50% and the fringe benefit rate for a research associate is 30%, how much money will be available for the research associate's salary?

A. \$37,500

B. \$57,692

C. \$38,461

D. \$50,000

C. \$38,461

- $\$75,000 / 1.50 = \$50,000$  (Salary & Fringe)
- $\$50,000 / 1.30 = \$38,461$

Professor Smith's 9 month salary is \$145,000. He plans to include 2 months effort, \$10,000 for materials & supplies, \$6,000 in equipment, and \$3,000 for travel in his budget to the National Cancer Institute. Assuming a fringe rate of 28%, F&A rate of 52%, and a current NIH Salary Cap of \$187,000, what is the total budget cost?

A. \$91,572

B. \$88,452

C. \$106,611

D. \$86,399

D. \$86,399

■ Is he subject to the Salary Cap?

- ☐  $\$145,000 / 9 = \$16,111$
- ☐  $\$16,111 \times 12 = \$193,333$
- ☐  $\$193,333 > \$187,000 \rightarrow \text{YES!}$

■ Salary: 2 months  $\times \$187,000 / 12 = \$31,167$

■ Fringe:  $\$31,167 \times 28\% = \$8,727$

■ Materials & Supplies: \$10,000

■ Travel: \$3,000

■ Equipment: \$6,000

■ F&A:  $\$52,894 \text{ (MTDC)} \times 52\% = \$27,505$

■ Total budget:  $\$58,894 \text{ (TDC)} + \$27,505 \text{ (F\&A)} = \$86,399$

A sponsor has a \$100,000 limit for a two year project period. A PI with \$120,000 FTE salary plans to commit 1.5 months each year to the project. He also is requesting \$5000 per year for travel and \$12,000 in year 1 for equipment. Assuming a fringe rate of 17% and 48% F&A, how much is remaining for materials and supplies?

A. \$14,360

B. \$19,360

C. \$7,360

D. \$10,060

A. \$14,360

- $\$100,000 - \$12,000 = \$88,000 = \text{MTDC} + \text{F\&A} (\text{MTDC} \times 48\%)$
- $\$88,000 / 1.48 = \$59,460 = \text{MTDC}$

		Year 1	Year 2	Total
Salary	$1.5 \times \$120,000 / 12$	\$15,000	\$15,000	\$30,000
Fringe	17%	\$2,550	\$2,550	\$5,100
Travel		\$5,000	\$5,000	\$10,000
Materials & Supplies				???
MTDC	(preliminary)			\$45,100

- $\$59,460 - \$45,100 = \$14,360$

University X has been awarded \$150,000 per year in direct costs for a three year project period. There are three subrecipients: State U receives \$15,000 each year; ABC College receives \$45,000 in year 1 only; and LMNOP University receives \$5,000 in year 1, \$10,000 in year 2, and \$15,000 in year 3. Assuming an F&A rate of 55% and all other costs are included in the MTDC base, how much F&A will University X receive each year?

- A. \$46,750, \$68,750, \$66,000      B. \$71,500, \$82,500, \$82,500  
 C. \$71,500, \$79,750, \$71,500      D. \$68,750, \$82,500, \$82,500

C. \$71,500, \$79,750, \$71,500

MTDC	Year 1	Year 2	Year 3	Remaining	Year 1	Year 2	Year 3
State U	\$15K	\$10K		State U		\$5K	\$15K
ABC	\$25K			ABC	\$20K		
LMNOP	\$5K	\$10K	\$10K	LMNOP			\$5K
				Total	\$20K	\$5K	\$20K

\$150,000 - \$20,000	\$150,000 - \$5,000	\$150,000 - \$20,000
\$130,000 x 55%	\$145,000 x 55%	\$130,000 x 55%
\$71,500	\$79,750	\$71,500