

Excellence in Research: The Funding Model, F&A Reimbursement, and Why the System Works

**PPT Slide Deck: Excerpted from the April 2019 COGR Paper
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November 2019**



An association of research institutions

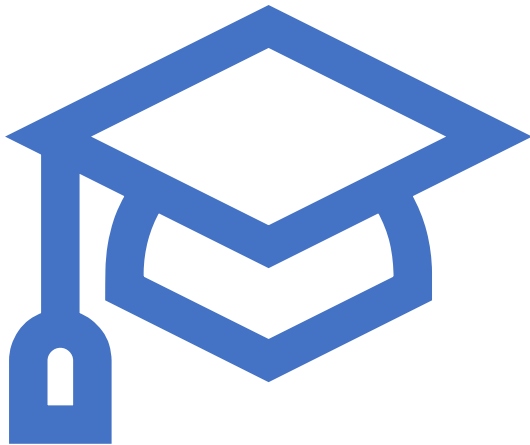
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Background of “Excellence in Research”



- Released by COGR in April 2019
- Shortly after the Administration’s proposal to cap NIH/HHS F&A cost reimbursement at 10%
- Addresses equitable reimbursement of F&A costs, how the F&A cost rate works, misunderstandings and myths, and related topics
- Goal of the Paper: *“To provide a basis for productive discussion so that research funding debates no longer are diverted by nonproductive disagreements about limitations on F&A cost reimbursement and misunderstandings about what is covered in the F&A cost rate”*

PPT Slide deck and Resources

- Slide deck follows the Table of Contents:

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- Full Paper and Executive Summary available at:

<https://www.cogr.edu/excellence-research-funding-model-fa-reimbursement-and-why-system-works-0>

- Complete Bibliography and a separate COGR E-Library available at:

<https://www.cogr.edu/fa-and-cost-research>

PPT Slide deck Workgroup and Contact Info

- Workgroup:

Barbara Cole (University of Miami)

Nazam Mohammed (Rutgers University)

Dawn Boatman (Portland State University)

Dennis Paffrath (University of Maryland)

Tommy Coggins (University of South Carolina)

Judith Ryan (Harvard University)

Louise Griffin (University of New Hampshire)

Jill Frazier Tinchler (University of Georgia)

Jason Guilbeault (Augusta University)

David Kennedy (COGR)

Vivian Holmes (Boston University)

Toni Russo (COGR)

Cindy Hope (Georgia Institute of Technology)

- Visit COGR at www.cogr.edu, or (202) 289-6655

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INTRODUCTION TO THE PAPER

The Research Mission

- Twenty-six grant-making agencies fund the federal research mission
- Researchers are funded based upon merit
- Competition among the best ideas makes our system great
- Benefits for society include better communication; cures for diseases; enhanced national security and personal safety; practical solutions to everyday problems and industrial challenges; and a deeper understanding of nature and its laws
- Funds committed to research are an investment leading to new discoveries, economic growth, and other benefits in the nation's best interest

Current State of Federally Funded Research in the United States



NO COUNTRY CAN MATCH THE CUTTING-EDGE SCIENCE AND DISCOVERIES GENERATED BY RESEARCHERS AND INVESTIGATORS FROM OUR UNIVERSITIES AND NON-PROFIT RESEARCH INSTITUTIONS



THE FUNDAMENTAL INFRASTRUCTURE OF THE SYSTEM IS HEALTHY



THE FUNDING COMMITMENT BY POLICY MAKERS REMAINS STRONG



THE RECOVERY OF THE COSTS OF RESEARCH IS WIDELY ACCEPTED AS CRUCIAL FOR REAL DISCOVERY, BUT FUNDING DECISIONS CAN BE MARGINALIZED BY RECURRING AND NONPRODUCTIVE MISUNDERSTANDINGS ABOUT HOW THE COSTS OF RESEARCH ARE REIMBURSED

The Role of the Institution



Institutions are active funders and committed partners of research



Institutions provide facilities, specialized equipment, and research personnel



Institutions possess organizational and administrative infrastructure, and serve as stewards of the federal investment in research



Institutions foster the communities of scholars and students whose talents and creativity strengthen our economy and further our national interests



Institutions supplement the federal investment in research by providing 25% of all academic research support, including unreimbursed costs

F&A Costs are Real Costs, Examples Include:



Technologically advanced research laboratories



Financial, administrative, technical and maintenance staff



Regulatory compliance programs



Libraries



Buildings - including utilities, ventilation, HVAC, water resources, and security



Safety programs for radiation, chemicals, and biohazard wastes



Computing infrastructure for communication and computing

Benefits of Current System of F&A Reimbursement

- Federally funded research makes the world a better place by advancing cures for disease, breakthroughs in technology, improvements to national and global security, and many other innovations
- Fair reimbursement of F&A costs is a critical part of the research ecosystem and contributes to the incredible and continuous advancement of science
- The current reimbursement system is remarkably efficient, protects the government and taxpayers, and has withstood the test of time
- The current reimbursement system benefits from responsible discussions where all parties reaffirm a commitment to the Government-Research Partnership

Without Full F&A Recovery



Institutions become more vulnerable to:

Declines in state funding for public universities;

Increases in administrative and regulatory burdens; and

Other costs that jeopardize our robust research enterprise



Reduced scientific discovery results in decreases in scientific progress, medical treatments, jobs, researchers and trainees, and it limits our understanding of the world



Less stable and less consistent funding endangers the infrastructure of discovery-based innovation and jeopardizes our standing in the world

Excellence in Research: The Funding Model, F&A Reimbursement, and Why the System Works

Chapter 1 BRIEF HISTORY

The Research Funding Model

- Has evolved since the 1930s
- Has had a significant, positive impact on the nation's status as a global leader in research
- Primary credit lies with the investigators who do the research and make life-changing discoveries
- The Research Funding Model should be recognized for its steady, reliable role as a “great facilitator”



1930s

- Virtually all research in higher education was funded either by philanthropy or foundations
- By the late 1930s, Congress wanted more money for university research
- NIH funded only research performed in-house until 1937 when the National Cancer Institute (NCI) was allowed to fund extramural research
- When Germany invaded Poland in 1939, the National Advisory Committee for Aeronautics (NACA) provided grants to individual researchers at U.S. universities

Vannevar Bush (1890-1974)

- Head of the Office of Scientific Research and Development (OSRD) and the National Defense Research Council (NDRC)
 - Created in 1941 by the government to fund research on campuses and administer wartime labs
- Author of “The Endless Frontier: A Report to the President” (1945)
 - Sets the stage for the creation of the National Science Foundation
 - Advocates for the crucial role of government in funding the nation’s research
- Advocate for fair and full reimbursement of indirect costs, including administrative support

Controversy over Indirect Costs

- During the war, the OSRD objected to the use of reimbursements to cover administrative costs
- This marked the beginning of a debate – which continues today – about the appropriate treatment of indirect cost reimbursement
- In 1947, the Office of Naval Research negotiated the first set of principles to determine indirect cost rates – the “Blue Book”
- Each agency developed its own cost recovery methods until 1958, when Circular A-21 was issued by the Bureau of the Budget

Limits on Administrative Cost Reimbursement

Through revisions to OMB Circular A-21

- 1986 – A 3.6% fixed allowance for faculty administrative costs is imposed, establishing a precedent for capping indirect costs
- 1991 – The administrative portion of indirect costs is capped at 26% for colleges and universities
- 1993 – Charging of administrative and clerical salaries as direct costs on federal awards is restricted

Current OMB Guidance

- In 2014, OMB issued 2 CFR Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* consolidating 8 circulars (including OMB Circulars A-21, A-110, A-122, and A-133) into a single document.
 - Appendix III: Indirect (F&A) Cost Identification and Assignment, and Rate Determination for Institutions of Higher Education (IHEs)
 - Appendix IV: Indirect (F&A) Cost Identification and Assignment, and Rate Determination for Nonprofit Organizations
 - Appendix IX: Hospital Cost Principles (not reissued) continue to use 45 CFR Appendix E to Part 75

Excellence in Research: The Funding Model, F&A Reimbursement, and Why the System Works

Chapter 2

F&A FOR THE NON-ACCOUNTANT

F&A for the Non-Accountant - Direct Costs



Direct costs are the expenses we generally think of supporting research



Direct costs are the core costs of research. Examples include:

- Salary support for researchers and lab personnel
- Laboratory supplies
- Equipment specifically for research
- Travel to conduct research or disseminate results



Direct costs represent the largest share of the federal investment in research

F&A for the Non-Accountant - Facilities and Administrative Costs



To perform research, institutions incur a variety of other significant costs that are not Direct, primarily infrastructure and operational expenses.



These are F&A costs and include:

- maintenance of high-tech labs specifically designed for cutting-edge research
- utilities such as electricity and heat
- hazardous waste disposal
- the infrastructure necessary to comply with various rules and regulations



F&A costs are allocated proportionately to externally-funded research through the F&A cost rate

Case Study: Costs for an Oil Change

Direct Costs

- Service technician's time
- New oil filter
- 5 quarts of oil



Indirect Costs (F&A)

- FACILITIES
 - Construction of specialized garage
 - Tools
 - Utilities
 - Property insurance
 - Employee safety training
- ADMINISTRATIVE
 - Accountants and billing clerks
 - Telephone service

Recovering Direct and Indirect Costs

Oil Change Case Study



No business could operate without being reimbursed for direct and F&A expenses.



The oil change business recovers its direct and F&A costs through charges to its customers.



F&A charge per service must be based on an allocation methodology

Example: It would be impractical to determine the utility cost of each oil change



Customers do not expect the details of the F&A costs to appear in the bill

Profit is not listed either, but the customer knows it is part of the total charge

Research Institutions

Research institutions, like the oil change shop, incur both direct and F&A costs, which should be reimbursed

Research institutions are not allowed to include a mark-up for profit

Research institutions also are required to meet and pay for complex and expensive research compliance requirements

Costs of Federally Sponsored Research

Direct Costs

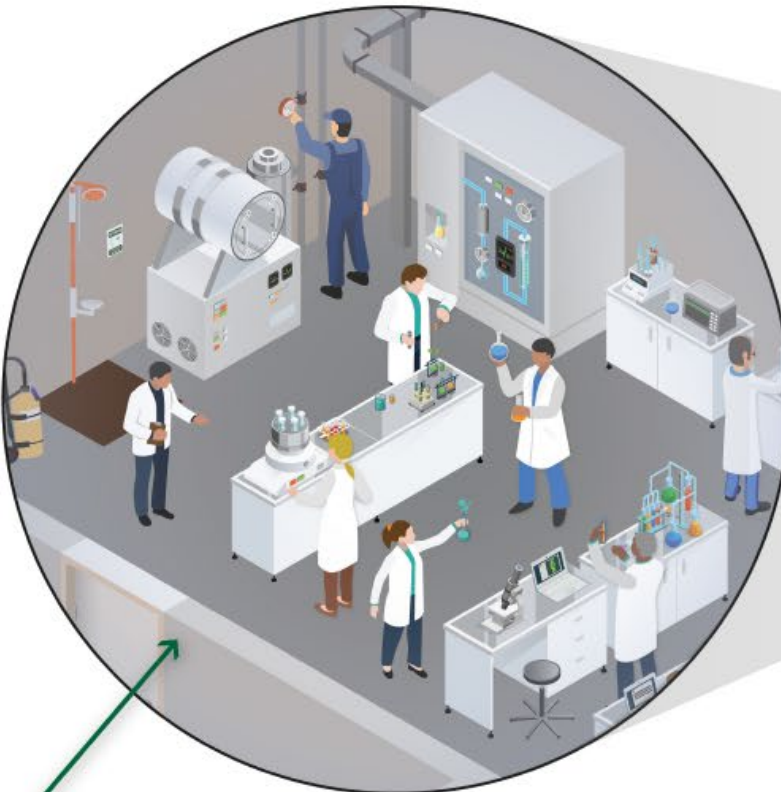
- Lab supplies
- Equipment
- Salaries for lab personnel
- Stipends for students or fellows
- Travel costs

Indirect Cost (F&A)

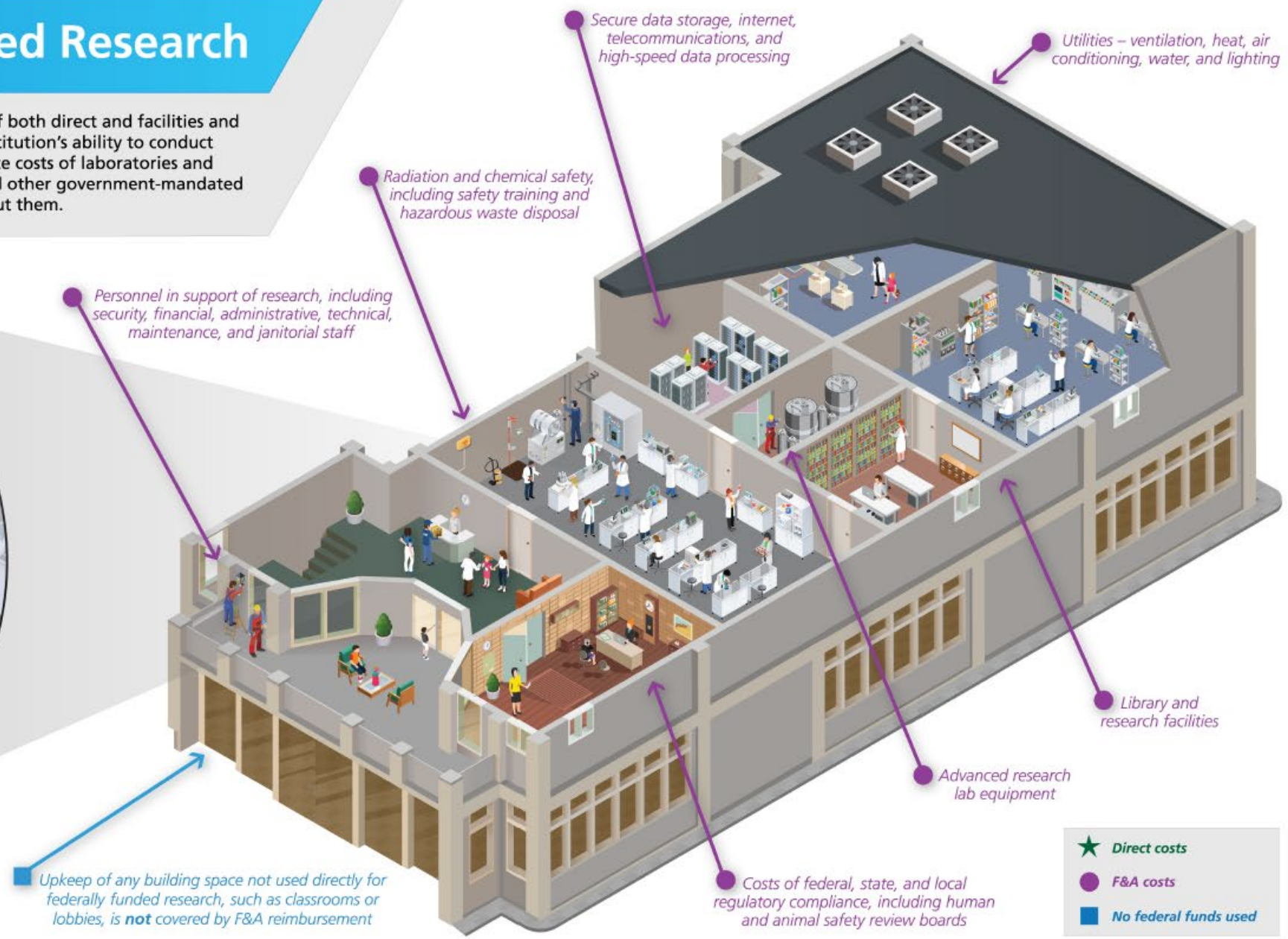
- Financial, administrative, technical and maintenance staff
- Regulatory compliance programs
- Libraries and research facilities
- Utilities, ventilation, HVAC, water
- Radiation and chemical safety
- Computing infrastructure

Costs of Federally Sponsored Research

The total cost of federally sponsored research includes a combination of both direct and facilities and administrative (F&A) costs. Both types of expenditures are key to an institution's ability to conduct cutting-edge research. F&A consists of the construction and maintenance costs of laboratories and high-tech facilities; energy and utility expenses; and safety, security, and other government-mandated expenses. These costs are real and research cannot be conducted without them.



★ Direct costs - These expenses solely cover research and include lab supplies and equipment; salaries and stipends for researchers and graduate students; and travel costs for conducting and sharing research



The Federal Dollar

(A Representative Example)

- On average, 73 cents of every dollar of federal research funding supports direct costs while only 27 cents supports F&A costs



Institutions Make up the Difference

- 27 cents of each dollar does not cover the full cost of supporting the F&A costs associated with research
- 2017 NSF survey results indicated that institutions of higher education spent \$18.9 billion of their institutional funds on research; Unrecovered F&A accounted for \$5.2 billion
- Every institution has its own unique combination of institutional contributions, and each can document that amount; Institutional support for research ranges from the tens of millions at smaller research institutions to hundreds of millions of dollars at the largest

Importance of Healthy Collaboration

- Research institutions are active funders and committed partners in research
- Financial uncertainties confronting research institutions, combined with the increased cost of performing research, threaten the nation's basic research capability
- The imbalance between the outlays required to conduct research and the resources available to research institutions needs to be addressed in the context of the historically productive Government-Research Partnership

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Chapter 3 F&A NUTS AND BOLTS

Allowable and Reimbursable Costs

Examples of Facilities (F) Costs

- Utilities
- Custodial Services, Maintenance, Repairs
- Campus Security
- Environmental Health & Safety
- Hazardous Waste Disposal
- Property Insurance
- Library books, periodicals
- Construction Depreciation & Interest
- Equipment Depreciation

Examples of Administrative (A) Costs

- Financial Management
- Award Billing and Reporting
- Budget, Payroll, and Procurement
- Dean, School, Academic Dept. Management
- Human Resources Management
- Legal Counsel
- Data and Technology Management
- Proposal Preparation
- Human Subject Protection

Unallowable and Non-reimbursable Costs



FUNDRAISING



LOBBYING



PUBLIC RELATIONS
AND ADVERTISING



INVESTMENT
MANAGEMENT



DEPENDENT TUITION
REMISSION



ENTERTAINMENT
COSTS



BAD DEBTS, FINES,
PENALTIES

F&A Cost Pools for Colleges and Universities

Facilities (F) Cost Pools

- Building and Improvement Depreciation
- Equipment Depreciation
- Interest Expense
- Operations and Plant Maintenance
- Library Support

Administrative (A) Cost Pools

General Administration (GA)

Departmental Admin (DA)

Sponsored Projects Admin (SPA)

Student Admin and Services (SAS)

Standard Allocation Methodology (F)

Building and Campus Improvement Depreciation	Assignable Square Footage (ASF) of functions (Instruction, Research, etc.) based on Space Survey; Improvements normally based on FTEs
Equipment Depreciation	ASF of functions based on Space Survey
Interest Expense	ASF of functions based on Space Survey
Operations and Maintenance of Plant	Costs normally are sub-pooled and allocated using ASF of functions based on Space Survey; or other appropriate statistics
Library Support	FTE or other appropriate statistics

Standard Allocation Methodology (A)

General Administration	Campus-wide Modified Total Direct Costs (MTDC)
Departmental Administration	Department MTDC
Sponsored Projects Administration	Sponsored Projects MTDC
Student and Administrative Services	Generally allocated to Instruction

Modified Total Direct Cost (MTDC) Exclusions



SUBAWARD
AMOUNT OVER
\$25,000



EQUIPMENT AND
OTHER CAPITAL
EXPENSES



TUITION REMISSION,
SCHOLARSHIPS,
FELLOWSHIPS



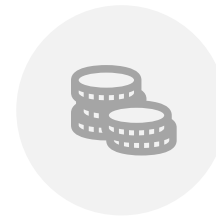
SPECIALIZED SERVICE
FACILITIES (SSFS)



RENTAL COSTS



PATIENT CARE COSTS



PARTICIPANT
SUPPORT COSTS

Calculating the Organized Research Cost Rate

$$\text{F\&A COST RATE} = \frac{\text{F\&A Allocable to On-Campus Research}}{\text{Modified Total Direct Costs (MTDC) for On-Campus Research}}$$

$$54\% = \frac{\$21.6 \text{ Million Allocable to On-Campus Research}}{\$40.0 \text{ Million MTDC for On-Campus Research}}$$

The 54% rate represents an “average” rate to be applied to all On-campus research projects, which simplifies the entire F&A process. This technical concept is addressed in Appendix 1 of the paper.

Other Rates and Activities



Other rates are necessary when the “average” rate applicable to On-campus research projects is not appropriate



Off-campus research rate: Normally includes the Administrative (A) only; applicable to Off-campus projects



Clinical Trials, Specialized Facilities, Other Sponsored Activities, etc. may require unique, separately established rates to recognize the On-campus research rate is not be applicable to these activities



The establishment of these other rates helps to ensure that all activities are fairly and properly costed

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Chapter 4 **OVERSIGHT AND AUDIT**

Why Oversight and Audit are Important

Oversight and Audit Help assure:

- Awards are administered in compliance with federal requirements

AND

- Negotiated F &A cost rates fairly reflect the allowable F&A costs that benefit the awards



Infrastructure

- F&A cost rate reviews and audits
 - (e.g., HHS-CAS, ONR, DCAA, and other agency oversight)
- Offices of Inspectors General audits
 - (e.g., NSF OIG, HHS OIG, etc.)
- The Government Accountability Office (i.e., studies requested by Congress), agency grant reviews (appraisals by funding agency staff)
- Internal Audits (performed by institutional staff)
- Single Audits (as required by law for any entity expending more than \$750,000 in federal funds on an annual basis)

HHS and ONR Oversight

- The review, negotiation, and approval of F&A cost rates for research institutions generally is assigned to either the Department of Health and Human Services, Cost Allocation Services (HHS-CAS) or to the Office of Naval Research (ONR)
- ONR establishes F&A cost rates for 44 research universities and institutions, with the remainder assigned to HHS-CAS
- The agency to which an institution is assigned is known as the institution's Cognizant Agency for Indirect Costs; cognizance assignments are evaluated no more frequently than every five years by HHS and ONR

HHS and ONR Reviews and Types of Rates

- HHS-CAS: F&A cost rate proposal is reviewed, and for larger research institutions, additional materials and a site visit often are required – the CAS “Best Practices Manual” also may be utilized – and upon completion, rates are negotiated
- ONR: DCAA audit occurs first, after which rate are negotiated
- Colleges and universities normally establish Predetermined rates, which are set for a two- to five-year period, though, at times, Fixed with Carry-forward rates or Provisional rates are used
- Other types of organizations may establish Predetermined rates under certain circumstances, or Fixed with Carry-forward or Provisional rates.

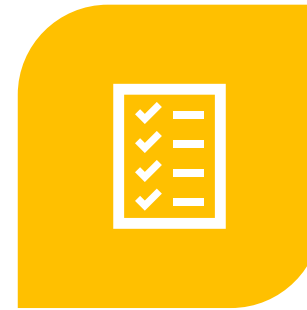
Offices of Inspectors General (OIG) Oversight



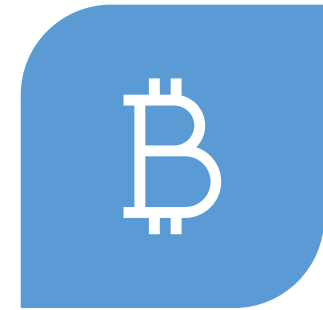
THESE OFFICES CONDUCT AUDITS, INVESTIGATIONS, AND OTHER EVALUATIONS WITH THE GOAL OF PROMOTING ECONOMY AND EFFICIENCY AND REDUCING WASTE, FRAUD, AND ABUSE



AUDITS ARE CONDUCTED IN ACCORDANCE WITH GENERALLY ACCEPTED GOVERNMENT AUDITING STANDARDS, DEVELOPED BY THE U.S. GOVERNMENT ACCOUNTABILITY OFFICE (GAO)



OIG AUDITS AND EVALUATIONS INCLUDE PERFORMANCE ASSESSMENTS OF FEDERAL AGENCY GRANTEEES AND CONTRACTORS



AREAS OF NONCOMPLIANCE ARE GENERALLY RELATED TO ALLOWABILITY AND ALLOCABILITY OF COSTS CHARGED TO FEDERAL AWARDS

Other Oversight

- Congress can ask the Government Accountability Office (GAO) to do an F&A study; over the past 20 years, GAO F&A studies have not identified any major deficiencies or concerns
- Congress can ask the National Academy of Sciences (NAS) to do an academic-oriented study; to date, F&A cost reimbursement has not been a focus
- Agency Grant Reviews may be conducted to ensure compliance with terms and conditions; reviews may be desk reviews or on-site visits
- Internal audits focus on internal controls to mitigate risk, meet goals and objectives, and establish effective governance processes
- A Disclosure Statement (DS-2) for research institutions with annual federal awards \geq \$50 million defines F&A methods and practices

Single Audit

- The annual, independent audit of the financial statements and Schedule of Expenditures of Federal Awards (SEFA) is prescribed under the Single Audit Act, which eliminates multiple audits of individual federal programs
- Research institutions with annual federal awards \geq \$750,000 are subject to a Single Audit; the OMB Compliance Supplement regulates the audit
- Auditors are required to express an opinion on financial statement presentation, internal control over financial reporting and compliance, and compliance and internal controls for major programs
- Management must prepare a corrective action plan and summary schedule of the status of prior audit findings when applicable
- An audit of F&A methods and practices are part of the Single Audit

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Chapter 5 **POLICY AND SPECIAL TOPICS**

Unrestricted & Restricted Funds

- Funding sources for research institutions are classified as Unrestricted or Restricted
- Unrestricted sources are used at the discretion of the institution and Restricted sources are those that are limited in use by third parties, such as donors and research sponsors
- Primary sources of unrestricted funds include state appropriations, tuition and F&A cost reimbursement
- F&A Cost Reimbursement is an important unrestricted funding source for research institutions

F&A Cost Reimbursement

A business executive who travels from Boston to Omaha on a business trip charges \$800 for the flight to his/her personal credit card and will be reimbursed by the company. When reimbursed, the executive can use those funds for any purpose.

- The same concept applies to F&A cost reimbursement.
- F&A costs are incurred and the institution is reimbursed for them through application of the F&A cost rate; the institution determines the use of these unrestricted funds

Internal Distribution of F&A Cost Reimbursement

- Institutions have well-documented policies for use of F&A cost reimbursement
- Uses may include, but are not limited to, student scholarships, research start-up funds, administrative needs, library support, and enhancement of facilities
- Research institutions that conduct federally sponsored research are subject to audits, generally accepted accounting standards, transparent state and governing body oversight, IRS rules and other forms of scrutiny and governance; these further ensure F&A cost reimbursement is treated appropriately

Tuition and F&A Relationship

- Historically, private universities relied on tuition as a consistent funding stream, while public institutions relied on state appropriations.
 - State appropriations have steadily decreased over the past two decades
 - Tuition increases are closely scrutinized
- Tuition rate increases may be constrained by state governance; however, restrictions on fair F&A cost reimbursement can force tuition rate increases to be considered
- Consequently, significant financial pressure to receive fair F&A cost reimbursement
- Fair F&A cost reimbursement is an integral part of the stability of the research enterprise and must be a policy priority

Federal Limits on F&A Cost Rates

- F&A cost rates on federally-sponsored projects can be limited:
 - Statutory restrictions – e.g. USDA
 - Agency policy – e.g. NIH caps on the F&A cost rate for training and career development (8%)
 - 26% Administrative Cap
- The 26% Cap is the most inequitable restriction on fair F&A cost reimbursement

Inequitable Treatment with Industry

- Industry is not subject to the 26% administrative cap; when performing research or services for the federal government they seek reimbursement for the costs of work performed
- Federal Acquisition Regulation (FAR) Subpart 31.2 establishes the rules for determining allowability; Total costs (sum of the direct and indirect) are recognized as real costs
- A 2000 RAND Corporation, Science and Technology Policy Institute report, “Paying for University Research Facilities and Administration,” compared federal labs, industry and research universities and found that universities had the lowest level of administrative costs

Foundations & Nonprofit Funders

- Foundations and nonprofit funders often limit F&A cost reimbursement
- Historical, unique role has been to fund niche research not prioritized by federal agencies, support new PIs, and complement other funding sources; further small funders may have very limited resources and F&A policies may be influenced by a Board or individual donor
- When a funder has resources available for traditional project funding (e.g., similar to an NIH R01 award), reimbursement of the full F&A cost rate may be appropriate
- Universities may recoup some F&A costs as direct costs, which would not typically be allowed by federal policies. Examples include:
 - Human subject review boards
 - Technology transfer activities
 - Space costs
 - Hazardous waste costs

Reduced F&A and Institutional Policy

- Some institutions require full reimbursement of F&A costs from industry, but will agree to cost share (by accepting a lower F&A cost rate) when funding is from a foundation or nonprofit funder
- Some have requirements that sponsors cover the total costs of research, while others limit the number or value of awards without full F&A reimbursement that can be accepted or cost-shared
- Some require departments or schools that accept reduced F&A awards, to fund the difference from discretionary funds.
- Some make decisions on a case-by-case basis

F&A Models in Peer Countries

- Policymakers, on occasion, may inquire about peer country funding models; some peers use block grants / infrastructure-only grants, as well as variations on the U.S. reimbursement model
- A 2013 study, “Indirect Costs of Research,” conducted by the Canadian Association of University Business Officers (CAUBO) with support from the Canadian Association of University Research Administrators (CAURA), compared Canada, the United Kingdom, Australia and the United States; one conclusion being all systems are nuanced, with unique complexities and there is risk to research institutions when real costs of research are not funded

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Chapter 6 THE FACTS (NOT MYTHS)

FACT: #1 F&A COSTS ARE REAL COSTS OF RESEARCH

Myths

Myth #1a: The funds provided for direct costs cover all expenses connected with project activities. Payment for F&A cost is “extra” funding

Myth #1b: F&A provides a way for institutions to cover costs unrelated to the sponsored project

Facts

Direct costs can be assigned directly to a specific project or activity with a high degree of accuracy – e.g. salaries, supplies, equipment and travel

F&A costs are reimbursed for actual expenses incurred - use of space, facilities, equipment and administrative services

There is a federally prescribed methodology used to negotiate and assign a fair portion of allowable costs to research F&A

FACT: #1 F&A COSTS ARE REAL COSTS OF RESEARCH

Myths

Myth #1c: F&A costs are like a tax which is levied by the institution to fund its overall activities and operations

Myth#1d: F&A received is funneled back to individual researchers and their departments for discretionary use

Facts

F&A reimbursement covers costs allocable to the sponsored activity, including facilities maintenance, utilities, disposal of research waste and administration

Distribution of F&A reimbursement varies by institution but is based on costs previously incurred to support the sponsored activity. Once the institution is reimbursed for F&A costs, it may distribute the funds according to its policies

FACT: #2 F&A COST REIMBURSEMENT IS NEITHER PROFIT NOR A TAX

Myths

Myth #2a: F&A includes actual costs plus a profit

Myth #2b: F&A is based on market factors

Myth #2c: F&A charges subsidize unrelated activities such as education, entertaining, or athletics

Facts

Federally negotiated F&A cost rates are based on actual allowable costs as defined in OMB Uniform Guidance. Profit is unallowable under these cost principles and cannot be charged.

F&A cost rates are based on actual expenses as reported in audited annual financial statements, which are reviewed and approved by a cognizant federal agency.

F&A cost rate charges reflect research-related costs only and rate calculations are prohibited from including any other expenses.

FACT #3: A 54% RATE DOES NOT EQUAL 54¢ OF THE DOLLAR TO F&A

Myth

Myth #3: An F&A cost rate of 54% means that over half of the funding goes to pay F&A costs with less than half available for direct costs.

Facts

F&A cost rates are applied to the Modified Total Direct Costs (MTDC) of a project, which results in F&A charges of no more than one-third of a project's total costs.

Example: \$100,000 is required to support a proposed project. Of which, \$80,000 is MTDC (i.e. the F&A cost rate is applicable). The total budget is calculated as follows:

$$\$80,000 \text{ (MTDC)} \times 54\% = \$43,200$$

$$\$100,000 + 43,200 = \$143,200 \text{ Total Project Costs}$$

$$\text{F\&A} = 30\% \text{ of Total Project Costs}$$

FACT #4: FLAT RATES ARE INEQUITABLE AND COULD CRIPPLE RESEARCH

Myth

Myth #4: The most equitable and efficient way to assign F&A cost rates would be to implement one rate for all institutions.

Fact

There are significant differences between institutions - e.g. geography, research infrastructure and research focus – producing varying rates.

Not all research costs the same to conduct; therefore, limiting an institution's ability to fully recoup its costs will limit who is willing and able to conduct research.

Losing money on sponsored research is unsustainable for institutions and will disincentivize participation.

FACT #5: RESEARCHERS AND FACULTY BENEFIT FROM F&A ACTIVITIES

Myths

Myth #5a: F&A reimbursements only support the institution's infrastructure, providing little benefit to scientific research.

Myth #5b: Reducing funding allocated to F&A would mean additional money for scientific endeavors.

Facts

F&A supports the space and infrastructure required to conduct cutting edge research. Researchers depend on and benefit greatly from institutional investments funded by F&A cost reimbursement.

F&A cost reimbursement supports critical functions supporting research, required through compliance regulations, and integral to an institution's research mission (e.g. Human Research Protection Programs, Laboratory Animal Care, etc.)

FACT #6: INSTITUTIONS HAVE POWERFUL INCENTIVES TO CONTROL COSTS

Myths

Myth #6a: Institutions build new research facilities without risk because these facilities will be supported by the federal government via F&A reimbursements.

Myth #6b: Excessive administrative costs lead to increased F&A cost rates; therefore, the more an institution spends, the higher the rate of reimbursement.

Myth #6c: Institutions have no incentive to control costs, which results in extravagant research facilities.

Facts

Institutions must pay for buildings and facilities upfront with no guarantee that F&A cost reimbursements will cover these costs.

Reimbursement for administrative expenses is capped at 26%. Institutional costs that exceed this are not reimbursable and must be covered by the institution. Most research institutions exceed this administrative cap.

Institutions have every incentive to contain costs as they must pay the entire bill for construction and are reimbursed only when (if) federal research is conducted in the building.

FACT #7: INSTITUTIONS ARE MAJOR FINANCIAL CONTRIBUTORS TO RESEARCH

Myths

Myth #7a: F&A reimbursements cover all infrastructure costs for research operations.

Myth #7b: Increases in research support costs are covered dollar for dollar by the federal government.

Myth #7c: Institutions expect the federal government to cover all costs connected with sponsored research.

Facts

F&A cost reimbursement covers substantially less than the full cost of conducting research, with institutions subsidizing all federally sponsored research.

Institutions invest their own money to support infrastructure improvements which may be covered by future incremental rate increases.

The 2017 NSF Higher Education Research & Development Survey (HERD) showed an established and continuing trend of institutions increasing their contributions to research, both as a percentage and in actual dollars.

FACT #8: THE FEDERAL GOVERNMENT DOES NOT SUBSIDIZE OTHER FUNDERS

Myth

Myth #8: If a non-government sponsor caps its F&A reimbursement at 10%, the federal government is subsidizing the research.

Facts

Federal cost principles require that F&A costs are allocated fully and consistently to all benefitting activities, regardless of whether a sponsor fully reimburses the institution. This ensures that all research is costed consistently. If a sponsor under-reimburses F&A, the institution is subsidizing the work.

Non-federal sponsors often have special interests and operate under a different paradigm than federal agencies. F&A cost rate limitations often can be mitigated by greater latitude in direct charging allowable items.

Excellence in Research: The Funding Model, F&A Reimbursement, and Why the System Works

Chapter 7

THE ADMINISTRATIVE CAP AND BURDEN

Cap on Administrative Cost Reimbursement

- 2 CFR 200 (Uniform Guidance) imposes a 26% cap on reimbursement of Administrative Costs for universities
 - *“the administrative costs charged to Federal awards awarded or amended...must be limited to 26% of modified total direct costs”*
 - The cap has not been formally reexamined by the Office of Management and Budget since its implementation

Misconceptions about Administrative Costs

- Administrative Costs are Not Inappropriate Costs
 - Uniform Guidance prohibits inclusion of inappropriate costs in the Administrative Cost calculation by identifying “unallowable costs” excluded from the rate
 - Universities are required to certify “unallowable costs” are identified and excluded from the rate
 - Administrative costs are limited to general administration, departmental administration, sponsored project administration and student administration and support

The Inappropriateness of a 26% Cap

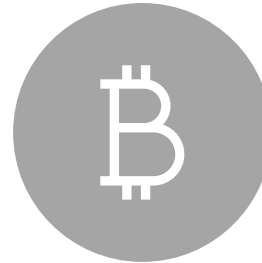
- The 26% cap was determined based on data representing average administrative costs at universities prior to 1991
- The cap only applies to universities, even though universities spend a smaller percent of research costs on administration; as shown in the 2000 RAND Corporation, Science and Technology Policy Institute report, “Paying for University Research Facilities and Administration”:

Organization Type	Administrative Costs as % of Research Costs
Universities	31%
Federal Laboratories	33%
Industrial Laboratories	36%

The Cap Imposes Excessive Financial Burden on Universities



Universities and the Federal government are both primary financial contributors to the research enterprise



According to the 2017 NSF HERD Survey, Universities funded 25% (\$18.9 billion) of the total R&D expenditures (\$75.2 billion) in higher education



The Uniform Guidance outlines the “Fair Share” principle “to provide that federal awards bear their fair share of cost” of a program or project



The 26% cap disregards the fair share principle by compounding university subsidies of federally funded research

A Growing Problem: Regulatory and Administrative Burden

- Regulations that directly affect the conduct and management of research is substantially increasing
 - Council on Governmental Relations List of Regulatory Changes:
<https://www.cogr.edu/cogr-list-regulatory-changes-1991-0>
- Any new regulation prompts an increase in the administrative cost of compliance; since universities' administrative costs already exceed the 26% administrative cap, the cost of compliance is paid in full by the university

Studies Support the Growing Problem: Regulatory and Administrative Burden

- According to the Federal Demonstration Partnership (FDP) “2018 Faculty Workload Survey,” as the burden associated with research grows, university researchers spend significant amounts of their research effort (44%) on administrative duties, rather than carrying out the research
- Appendix 2, Managing Burden, includes Case Studies—Export Controls, Reporting and Invoicing, and Audit burden—representing a small sampling of burdensome administrative activities
- As regulatory and administrative requirements increase, universities are actively advocating and proposing regulatory reforms for reducing burden

Administrative Cap: Summary

Research is a highly complex, regulated endeavor, which is expensive



The cap on administrative cost recovery disproportionately shifts mandatory federal compliance costs to universities



If research institutions can no longer sustain subsidizing federally-funded research, the possible outcomes are:

A decline in the quality of research infrastructure and compliance oversight

A gradual degradation of laboratories and facilities

Decreased global competitiveness

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Chapter 8

WHY THE SYSTEM WORKS

Reason 1: Rate Calculations are Tightly Controlled

- Recognition that F&A costs are necessary to do cutting-edge research
 - Developed based upon the a federal cost principles framework
 - Requirements have evolved over time
 - Ensures F&A cost rates are based on consistent, established methodologies
- Current system
 - Development of base year F&A cost rate is a methodical process
 - Cost pools carefully constructed and allocated to benefiting functions
 - Rate calculation reviewed/audited, negotiated and agreed to by federal government and institution
 - Government only pays for F&A costs supporting federally funded programs of the institution

Reason 2: Based on the Cost Structure of the Institution

- The F&A Cost Rate is:
 - An accumulation of actual institutional costs
 - Sorted into specific cost categories
- The Process of Developing the Rate is Unique:
 - To the Institution's Facilities
 - Types of Research Conducted
- The Result:
 - Establishes the fairest level of F&A cost reimbursement, allowing the institution to be fairly reimbursed for its F&A costs incurred

Reason 3: The Averaging Model is Efficient & Eliminates the Risk of Federal Subsidization

- Avoids the administrative burden of identifying what types of F&A costs apply to each award
- Provides budget and expense predictability – rate doesn't change immediately with changes in actual costs or other circumstances
- Reasonably allocates the F&A costs of performing the sponsored work to all sources based on actual costs incurred
- Though “averaging” can provide individual project inequities—i.e., rate is too low for expensive research & too high for less expensive research—this model eliminates the risk of federal subsidization by including all research from all sponsors in the MTDC research base (this technical concept is addressed in Appendix 1 of the paper)

Reason 4: Research is an Engine that Creates Jobs and Fuels the Economy & Discovery

- The Partnership between the federal government & research institutions fosters research that has led to significant economic gains and improved quality of life
- Dr. Francis Collins, Director of NIH cited a study by United for Medical Research and wrote in his testimony:
 - *“Investments in NIH research spur job creation...FY 2012, NIH funding supported more than 402,000 jobs and \$57.8 billion in economic output nationwide. Discoveries arising from NIH-funded research ... are a foundation for the U.S. biomedical industry, **contributing \$69 billion to our GDP and supported 7 million jobs in 2011 {emphasis added}.**”*

(Reason 4, continued

on next slide)

Reason 4: Research is an Engine that Creates Jobs and Fuels the Economy & Discovery

- Other organizations espouse the vital, powerful economic impact of science and research
- Dr. Kelvin K. Droegemeier, Director of Office of Science and Technology Policy in 2019, stated:
 - *From the iPhone to automobiles, to commercial airplanes, automated grocery checkout stands, unconventional recovery of crude oil and gas, and online shopping, the benefits of research – and their translation into products and services via the process of private sector innovation – are undeniable and pervasive.*
- The research funding model:
 - Powerful factor in facilitating high quality, cutting-edge research
 - Fuels a diverse, vibrant, and powerful United States and world economy

Reason 5: Decentralization of Research Maximizes Creativity and Geographic Diversity

The decentralized nature of the nation's research enterprise is a pillar of the partnership:

- Recognizes differences in infrastructure requirements between types of research and the location in which it is being conducted
- Per the 2017 NSF HERD Survey – Over \$40 billion of federally funded research expenditures was conducted at more than 900 research institutions in all 50 states, plus U.S. territories, and in almost every congressional district across the country

**(Reason 5, continued
on next slide)**

Reason 5: Decentralization of Research Maximizes Creativity and Geographic Diversity

- Any investigator can apply for federal research funding
- Merit-based—proposed projects must withstand competitive award-making processes
- Diversity of recipients is key to breakthrough discoveries and new ideas
- An entrepreneurial mindset is only attainable with the federal government fulfilling its part, supporting both the direct and infrastructure costs
- Without reliable funding for F&A costs, smaller institutions, without other resources to draw upon, may forego research, leaving fewer institutions to conduct it
- This reduction would restrict the far-reaching entrepreneurial R&D spirit of the United States

Excellence in Research: The Funding Model, F&A Reimbursement, and Why the System Works

Chapter 9 **ALTERNATIVE SYSTEMS**

Flat Rates

(All institutions receive the same rate)

Pros

- Would reduce the cost and administrative burden for the institution preparing the F&A cost rate proposal
- Would eliminate the review and negotiation of the F&A cost rate

Cons

- Creates winners and losers (i.e., those institutions with negotiated F&A cost rates above or below the fixed rate)
- Would shift costs to research institutions that they cannot absorb, violating the “fair share” concept of Uniform Guidance
- Would not account for differences in costs for different types of research
- Would not be based on an institution’s actual costs or cost structure.

Flat Rates

(All institutions receive the same rate)

Pros

- Would simplify budget development, proposal submission, and subcontracting processes since the Flat Rate is known and consistently applied for all

Cons

- Would not consider regional differences in costs. Even regional flat rates (e.g., Northeast, Midwest, etc.), would have the other disadvantages mentioned
- Would disincentivize institutions investing in cutting-edge laboratories and facilities
- Would lower F&A reimbursement, forcing institutions to stop research and slow progress in medical treatments and scientific training
- Would erode research quality, affecting economic growth, security, future generations, and standing as the global leader in science and innovation

Fully-Authenticated Direct Charging

(Charge F&A costs directly on each project rather than through a rate)

Pros

- Costs are transparent, showing each F&A expense allocated to a project
- Costs are reimbursement for actual expenses for each project, rather than the average cost, *via* the F&A cost rate

Cons

- Would require complex and frequently changing of cost allocations.
- Would complicate proposal budgeting
- Would result in more inconsistencies between budgeted and actual costs
- Would require multiple charges to an award rather than a single F&A cost charge
- Would increase the costs of the most facilities-intensive research projects
- Would shift budgets across programs and agencies as facilities-intensive research projects would require larger awards

F&A Cost Rates by Type of Science

(Develop F&A cost rates based on major types of science)

Pros

- Would provide a more accurate allocation of costs to benefitting projects

Cons

- Would add to costs for the preparation and negotiation of multiple rates
- Would increase confusion for investigators by adding proposal complexity
- Would require rates for specific scientific disciplines, creating a more expensive and inefficient system

Default Rates and Alternative Rate Bases

(Uniform Guidance permits a 10% “de minimis rate” and some institutions apply F&A cost rates to salary base only; New reimbursement methods could be developed)

Pros

- Could provide efficiencies that improve the F&A cost process

Cons

- Could result in a nominally higher rate applied to a small base, creating the appearance that the rates have increased

Uncapped Compliance Cost Pool

(An uncapped compliance cost pool to capture costs associated with research compliance activities required by specific regulations)

Pros

- Would allow for recovery of costs not currently reimbursed due to the 26% cap
- Would allow for monitoring of incremental compliance costs and identification of opportunities to reduce/eliminate the impact of federal compliance mandates if the benefits do not justify the costs

Cons

- Would require thoughtful collaboration across all stakeholders and create challenges to capture all anticipated reimbursable costs

Fixed Price Model

(Federal or pass-through awards based on a fixed amount to support the project, and payments made without regard to the actual costs incurred)

Pros

- Requires an accurate estimate of actual costs to determine the amount of the fixed award, which still would require a method for allocating F&A costs
- A fixed price model has precedent
- Possibly eliminates the need to negotiate rates with the federal government

Cons

- Would be a major change requiring stakeholders to address costs, benefits, and unintended consequences
- Could result in the federal government paying more than actual costs or require institutions to absorb additional costs
- Would require the development of concrete performance metrics
- Would still require the calculation and allocation of F&A costs to each contract
- Could contribute to disagreements between faculty and administration about charges for F&A costs

Separate Bill/Drawdown for Direct and F&A Costs

(The application of a rate to each award would be replaced by a separate billing or draw down for the federal government's share of F&A)

Pros

- Removes F&A costs and rates from the view of the investigators, without compromising transparency

Cons

- Could add to the misperception that F&A costs are not real costs necessary to conduct research
- Hampers the institution-wide advocacy necessary for fair reimbursement of F&A costs

Equitable Solutions Will Be the Key



Research institutions are deeply committed to continuing the successful research partnership with the federal government



The current system should be reviewed on a periodic basis



Alternatives should be presented in an environment that ensures all stakeholders are engaged and are committed to preserve the quality of science



Any changes to the current system should provide for equitable solutions for both the federal government and research institutions

Excellence in Research: The Funding Model, F&A Reimbursement, and Why the System Works

Chapter 10 IMPROVING THE SYSTEM

Clearer Language and More Transparency

- More accurate language to be used by stakeholders

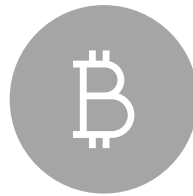
Language “Rights” and “Wrongs”

Right	Wrong
F&A <u>Cost</u> Rate	F&A Rate
Reimbursement of costs previously incurred	Revenue, Profit, Tax
F&A Costs, Research Project Support Costs, Cost of Compliance, Infrastructure	Indirect Costs, Overhead

More Flexibility in Direct Charging



Clearly direct costs – researcher salaries, lab supplies, special purpose equipment



Clearly F&A costs – budgeting, procurement, sponsored programs administration



Less Clear – administrative support costs such as: developing and maintaining protocols; managing and securing project data; and research computing



However, some of the “Less Clear” could be direct charged



26% administrative cap is a barrier (i.e., circumvents the cap)

Meaningful Reduction in Regulatory Burden



Regulatory burden comprised of laws, mandates, guidance, and regulations



Regulatory burden results in:

Expensive compliance infrastructure
Diminished effectiveness of research
Lowered return on federal investment in research



21st Century Cures Act calls for a Research Policy Board, led by OMB, to actively review regulatory burden and impact



Meaningful reductions might require “out-of-the-box” ideas, which would add to important incremental reductions

LEVERAGE THE UNIFORM GUIDANCE

F&A cost language incorporated into the Uniform Guidance remained generally consistent with A-21; the consensus was that F&A cost policies in A-21 were sound

The Uniform Guidance is a good platform to continue to reform grants administration, including F&A cost-related policies

Convene F&A Roundtables with Key Stakeholders

The list of key stakeholders includes, though is not limited to, representatives from:

Research
universities

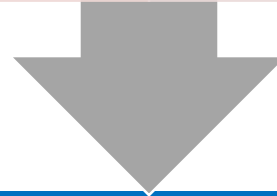
Nonprofit research
institutions and
hospitals

Cognizant agencies
for F&A cost rates
(CAS-HHS, ONR)

Funding agencies

Office of
Management and
Budget

Associations, such
as COGR



Convening with stakeholders is an opportunity to address technical issues of F&A costs and reimbursement, innovative practices, and other opportunities for improvement

A FINAL THOUGHT

The research funding model and F&A cost reimbursement process have been critical and effective support systems of the research enterprise in the United States and should be valued for their ongoing contribution to the nation's excellence in research. This paper presented key discussions on: equitable reimbursement of F&A costs; how the F&A cost rate works; misunderstandings and myths; and other related topics. We hope this paper enhances the climate for future productive dialogue and policy discussions about the topic of F&A cost reimbursement