

Contents

what is the origin of the indirect cost concept and Circular A-21?1
How have the terms of Circular A-21 changed over time?
What is the distinction between direct and F&A costs?
How is the overall F&A cost rate calculated?
How are F&A cost components calculated?4
What is the administrative process for negotiating the final F&A cost rate?7
What expenses are not allowable in cost pools according to revised Circular A-21?
What are the typical elements of a research grant?
Why should my grant pay F&A costs?
What are the F&A cost charges to my grant actually paying for?
How has the F&A cost rate changed over the years?
How does our overall F&A cost rate compare with other universities?12
Are the cost category percentages similar at most research institutions?
Why should I pay the same rate as my colleague for F&A costs?15
How much F&A cost reimbursement accrues to WSU?
How does funding from the State of Washington fit into the picture?16
How important is F&A cost reimbursement to the University?17
How are F&A reimbursements allocated?17
How are F&A cost reimbursements related to University expenditures?

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About this Primer

This Primer is designed to provide background information about *Facilities and Administrative (F&A) costs* to members of the Washington State University community.

- Current F&A rate
- · History of F&A cost funding
- · How F&A cost rates are calculated
- How F&A cost recovery provides significant funding for the infrastructure and administrative activities necessary to carry out the University's research programs.

Current F&A Rate

Washington State University concluded negotiation of its current F&A rate of 46.8 percent for the base period July 1, 1999, through June 30, 2000, during March 2002. This rate will remain in effect through June 30, 2006.

The May 1996 revision of the Cost Principles for Educational Institutions (OMB *Circular A-21*) replaced the term *indirect costs* with the term *Facilities and Administrative* (F&A) costs. The two terms—indirect costs and F&A costs—have the same meaning. Throughout this primer, we will use the official term used in OMB *Circular A-21*—facilities and administrative (F&A) costs.

1. What is the origin of the indirect cost concept and *Circular A-21*?

Federally funded research is a prominent feature at all major American research universities today. Prior to World War II, however, federal support for research, as we know it, was virtually nonexistent. The situation changed dramatically during the war as the federal government, initially through the Office of Scientific Research and Development, invested heavily in the discovery and development of new technological tools to support the war effort. Successes achieved by the scientific, medical, and engineering communities at American universities created a new awareness of the potential of university-based science and technology.

During and after the war, the Office of Naval Research (ONR) engaged faculty members at universities to carry out contract research for special projects. By 1947, ONR began to formalize such funding programs. In the process, the issue of institutional costs (now designated F&A costs) was addressed. It became apparent that a successful university-based research infrastructure could expand and improve only if the costs incurred in connection with these Navy contracts—beyond the obvious direct costs of

research—were reimbursed. ONR formally acknowledged the legitimacy of establishing differential F&A cost elements. They recognized that when reimbursing an institution for a given project, one had to take into account whether many or only a few capital facilities would be required, whether substantial or token utility costs would be incurred, and so forth. Despite ONR's formal acknowledgment of these F&A cost principles, the practice in the early years was to provide a flat-rate reimbursement for F&A costs.

After World War II, discussions of F&A cost rates continued between the universities and the federal government. In 1958, a formal and extensive set of guidelines for determining F&A costs was issued as Bureau of the Budget *Circular A-21*. The *Circular A-21* guidelines included formal criteria for justifying costs, methods for distributing the costs between instruction and research, and documentation requirements. In addition, certain costs were declared as unallowable.

Prior to 1958 the Department of Health, Education and Welfare (DHEW) had also acknowledged the ONR philosophy on F&A costs, but restricted recovery of F&A costs by setting an upper limit of eight percent. Today this is still the mandatory rate for most training grants. In 1958, the general rate for NIH was fixed by law at 15 percent, and then raised to 20 percent in 1963.

In the same way, the Department of Agriculture currently limits the F&A rate to 19 percent. USDA Cooperative State Research, Education, and Extension Service (CSREES) allows 19 percent of total award or our federally negotiated rate, whichever calculates to be less, on the National Research Initiative grants and the Integrated Research. Approximately four years ago this rate was increased from 14 percent of total award to the current rate of 19 percent of total award. These grants represent the major source of USDA funds received by our research faculty. USDA-CSREES does not allow any F&A on our Special Research Grants or our Cooperative Extension Smith-Lever Special Projects grants. This is by legislation that historically goes back to the beginning and is related to the Land Grant University system. There are other USDA-CSREES grants or agreements funded through various legislation, such as the Risk Management Education program, that do allow full F&A. Other areas of USDA such as the Agricultural Research Service and the Forest Service usually issue Cooperative Agreements and do not allow F&A as a direct charge, while the F&A is used as our cost sharing on these projects.

In 1966, the government removed the F&A cost ceiling and established the policy that universities should be fully reimbursed for the F&A costs incurred in conducting funded research projects. Nevertheless, some federal agencies still limit the maximum F&A rate. When the federal government removed the F&A cost

ceiling in 1966, mandatory cost-sharing language was instituted in the DHEW Appropriations Act, requiring that federally funded grants be augmented with support from the University. At many institutions, including Washington State University, this requirement has been satisfied by documenting that a portion of faculty time is devoted to the grant but not reimbursed by federal sources. The guidelines in *Circular A-21* provided a mechanism for universities to receive reimbursement for their costs, but the guidelines also imposed new compliance standards, requiring detailed documentation.

2. How have the terms of *Circular A-21* changed over time?

Circular A-21 was revised six times between 1961 and 1976. In 1979, protracted negotiations among federal agencies, universities and OMB (Office of Management and Budget, formerly the Bureau of the Budget), led to a major revision of Circular A-21. The government had been dissatisfied with the lack of uniformity in costing methods and with documentation of salary charges. The universities hoped to get a clearer definition of allowable costs to protect themselves from interpretation of the guidelines by government officials and the threat of future audit disallowances. The 1979 revision increased reporting requirements and reduced institutional flexibility. It also introduced the concept of Modified Total Direct Costs (MTDC) as the standard basis for determining allowable F&A costs (see Question 4).

From the mid-1960's and through the 1970's, revisions to OMB Circular A-21 were negotiated between government cost accounting experts and their university counterparts. During the 1980's, the Administration budget requests attempted to use regulatory language to modify cost principles. In 1983 the Department of Health and Human Services (DHHS, the new name for DHEW after the Department of Education had been established separately) proposed a ceiling for F&A costs. In 1985, DHHS requested that F&A cost rates be frozen at their 1985 levels. In 1986 the Assistant Secretary for Management and Budget at OMB and the Deputy Associate Director for Health Programs at DHHS teamed up to propose a limit of 20 percent for recovery of administrative costs. While Congress allowed none of these attempts, the December 1986 revision of Circular A-21 did set a 3.6 percent fixed allowance for faculty administrative costs, establishing a precedent for capping a portion of F&A costs.

Increasing budget pressures, demands from the research community for increased funding, revelations of serious cost-accounting errors, and the recognition

that the federal guidelines were ambiguous breathed new life into earlier efforts to limit F&A costs, and resulted in increased federal scrutiny of F&A costs at universities. In 1991, this led to new restrictions and revisions of *Circular A-21*, including a 26 percent cap on the administrative cost component, which includes General Administration, Departmental Administration, Office of Grant and Research Development, and Sponsored Programs Services. During 1993 additional changes to *Circular A-21* included restrictions on administrative and clerical salaries and a formal grouping of F&A cost pools into two broad categories—"facilities" and "administrative" costs.

Changes to *Circular A-21* in 1996 included consistency requirements when charging costs, the requirement to file a detailed Cost Accounting Standards (CAS) disclosure statement (DS II), an increase in the equipment capitalization threshold to \$5,000, fixed F&A cost rates for the "competitive segment" of an award (e.g., the F&A rate in effect during the first year of the award applies for all years of a multi-year award), and a replacement of the term indirect costs with the term Facilities and Administrative (F&A) costs. Also, recent changes implemented a standard format for F&A rate submissions.

3. What is the distinction between direct and F&A costs?

Circular A-21 states that, "direct costs are those costs that can be identified specifically with a particular sponsored project... relatively easily with a high degree of accuracy." By contrast, "F&A costs are those that are incurred for common or joint objectives, and therefore cannot be identified readily and specifically with a particular sponsored project, an instructional activity, or any other institutional activity." F&A costs are those involving resources used mutually by different individuals and groups, making it difficult to assess precisely which users should pay what share. By contrast, direct costs are easily assigned to a specific research project and paid by its direct grant funding.

In some cases it is easy to make this distinction. For example, if an investigator has to buy a chemical for a specific experiment, then that is clearly a direct cost to the grant. On the other hand, an investigator's use of electrical power, water and other utilities, or the services of the Sponsored Programs Services Office, Office of Grant Research Development, Office of the Campus Veterinarian, library, etc, are not normally charged directly because it is not practical to account for them separately.

Attributing an appropriate F&A cost amount for the use of research space for grant-related activities can be even more difficult. If, as is typical, a building

houses dozens of investigators who are involved individually and collectively in teaching, research, public service and other functions, determining the building costs that should be attributed to a particular faculty member's research projects is not practical. In certain cases a researcher may have several grants, which may use common space differentially. Although one could imagine a means of attributing a cost for the repair of a section of the roof (which may last 20 to 30 years) to a specific grant, it has generally been agreed that using a more macroscopic and statistically averaged method is much more sensible and cost effective. For example, an annual space study is used as the basis for distribution of space related cost.

The distinction between direct and indirect costs also has an impact based on whether the research is considered on-campus versus off-campus. On-campus is defined as a university-owned and operated facility. A university-owned facility may also include a facility which is leased, if the university is paying for the lease and providing the operational and maintenance support for the facility. A sponsored agreement performed on-campus cannot have facility and operational cost direct charged to sponsors, since the F&A rate recovery is already calculated to reimburse the university for its operational and maintenance expense. Off-campus facilities are neither owned, operated, nor leased by the university. Sponsored agreements performed off campus that only capture the 26 percent F&A rate may direct charge lease, rental, and custodial expenses to the sponsored agreement since the sponsor is only reimbursing F&A based on the administrative component of departmental administration. Regardless of whether the sponsored agreement is considered oncampus or off-campus, departmental administration costs cannot be charged to sponsored agreements, unless the sponsored agreement is defined as a major program under A-21 section C, as outlined below:

Exhibit C — Examples of "major projects" where direct charging of administrative or clerical staff salaries may be appropriate.

- Large, complex programs such as General Clinical Research Centers, Primate Centers, Program Projects, environmental research centers, engineering research centers, and other grants and contracts that entail assembling and managing teams of investigators from a number of institutions.
- Projects which involve extensive data accumulation, analysis and entry, surveying, tabulation, cataloging, searching literature, and reporting (such as epidemiological studies, clinical trials, and retrospective clinical records studies).

- Projects that require making travel and meeting arrangements for large numbers of participants, such as conferences and seminars.
- Projects whose principal focus is the preparation and production of manuals and large reports, books and monographs (excluding routine progress and technical reports).
- Projects that are geographically inaccessible to normal departmental administrative services, such as research vessels, radio astronomy projects, and other research field sites that are remote from campus.
- Individual projects requiring project-specific database management; individualized graphics or manuscript preparation; human or animal protocols; and multiple project-related investigator coordination and communications.

4. How is the overall F&A cost rate calculated?

A formalized process developed by the Federal government (consistent with generally accepted accounting principles and presented in *Circular A-21*) is used to determine the university's F&A cost rate for sponsored research. First, all F&A costs within the institution are assigned to one of nine cost pools related to primary functions. *Circular A-21* defines the nine cost pools (see Question 5). Then a fractional amount from each cost pool is attributed to the research enterprise according to guidelines provided in *Circular A-21*. Totaling these fractional dollar amounts yields the university's total F&A costs (TFAC) attributable to sponsored research.

The Total Facilities and Administrative Cost total is then converted to an F&A cost rate by dividing it by "Modified Total Direct Costs" (MTDC). In 1979, the Federal government elected to adopt a "Modified Total Direct Cost" approach for computing the F&A cost rate and charging F&A costs to individual grants. MTDC at WSU is calculated as total direct costs minus the cost of equipment, buildings, off-campus building rental, training stipends, tuition, and the portion of each subcontract in excess of \$25,000. Nevertheless, for most individual research projects, MTDC represents simply the direct costs less any equipment costs and tuition expenses. (See Chart I, the F&A Cost Formula on page 4.) At WSU, with a new rate agreement in place that reflected changes in state and federal threshold requirements, the threshold for equipment was raised from \$500 to \$5,000 for proposals submitted after March 2002.

5. How are F&A cost components calculated?

Circular A-21 spells out in considerable detail the data that must be collected for calculating the F&A cost rate. The financial basis for the F&A cost calculation is the set of audited data from the University's previously audited financial reports. The nine cost pools are classified within two broad categories—"Facilities" and "Administration"—with the F&A costs for the latter category capped at 26 percent. Chart II (see page 5) is a percentage breakdown of the University's on-campus research rate for Fiscal Year 2002. The chart suggests that for each \$100,000 allowed for MTDC, the 2002 WSU rate recovers an additional \$3,300 for building and improvement costs, \$6,100 for equipment, and so on. Below is also a breakdown of the cost components:

Cost Component:

Rate:	
Buildings and Improvements	3.3%
Interest	0.9%
Equipment	6.1%
Operations and Maintenance	9.0%
Library	1.5%
General Administration	6.3%
Departmental Administration	16.8%
Sponsored Projects Administration	2.9%
Student Services Administration	0.0%
Total	46.8%

- The Buildings and Improvements cost pool (the first of nine cost pools) contains three major types of costs. The first and largest segment is the building depreciation. Depreciation is calculated on a straight-line basis of 50 years resulting in a two percent depreciation expense. Building costs paid from federal funding are not included in the depreciation calculation.
 - Based on an extensive "space study" carried out by the University, an estimate is made of the fraction of building use which can be attributed to the research effort. The building cost pool also allows for the cost of land improvements (such as sidewalks, exterior lighting, landscaping), and the cost of off-campus rental space (if not charged to a grant directly). Chart III (see page 6) is a list of some of the major research buildings that are included in the space survey.
- The Interest cost pool includes interest on debt associated with certain buildings, equipment and capital improvements. These costs are assigned to research projects proportionally in the same manner as the depreciation or use allowance on the items (buildings, equipment and capital improvements) for which interest is paid.
- The Equipment cost pool includes items of equipment not purchased with federal funds.
 An annual depreciation amount is computed on

Chart I

The F&A Cost Rate Formula

PROPOSED F&A COST RATE	 (TFAC)	
	son one can, see one was not use one one one can	
	(MTDC)	

F&A Cost Definitions

TFAC		
(Total F&A Costs)	=	Total amount of the nine specific indirect cost pools assigned to organized, sponsored research
MTDC		
(Modified Total Direct Costs)	Manna Waters	(Direct Salaries and Wages) plus (All Other Direct Costs)
		minus (Equipment over \$5,000, renovation costs, patient care, off-campus building rental and utilities, training stipends, tuition and the portion of each subcontract in excess of \$25,000)

each equipment item using "useful life" periods established by the State of Washington. If the equipment is located in a room identified in the University's space study as research space, the corresponding equipment depreciation amount is considered an F&A cost of the research carried out in that room. With the increase of capitalization to \$5000, personal computers are seldom capitalized or depreciated.

- The Operations and Maintenance cost pool includes physical plant operations and maintenance expenses. This category recovers the cost of utilities, maintenance, custodial services, environmental health and safety, transportation services, campus security, and facilities management associated with organized research. The University's space study is used to apportion the majority of these expenses to research, instruction, and other activities.
- The Library cost pool recovers centralized library costs incurred, as well as newer campus libraries. Recoverable operating costs include administration, book acquisitions, and the cost of periodicals. Libraries operated by academic departments are considered departmental administration costs, and are recoverable through that cost pool. The various groups utilizing library services must be identified and assigned a portion of library costs

- when establishing what fraction of the total cost of the library enterprise is attributable to the research activities of the university.
- The General Administration cost pool includes expenses for general executive and administrative offices, which provide services to all activities of the university. This category encompasses personnel, payroll, and purchasing services, financial management, and a variety of other central administrative functions. In addition, expenses in the Offices of the president and the provost are included in this cost pool. These expenses are distributed proportionally in relation to the many other activities conducted at an educational institution.
- The Departmental Administration cost pool includes expenses for program support and administration that occur at both the college/school and departmental levels. This cost pool includes an allowance (3.6 percent of MTDC) for the administrative effort of faculty and other professional personnel. In addition, the Departmental Administration cost pool includes a calculation of the portion of personnel costs for non-faculty and non-professional technical and administrative staff, and for supplies, travel arrangements, telephone services, etc., which are typically paid from general operating budgets.

Chart II

Washington State University F&A Cost Components and their Percentage of Modified Total Direct Costs

Rate Component	Percentage
Facilities	
Buildings and Improvements	3.3
Interest	0.9
Equipment	6.1
Operations and Maintenance	9.0
Library	1.5
Subtotal Facilities	20.8%
Administration	
General Administration	6.3
Departmental Administration	16.8
Sponsored Projects Administration	2.9
Student Services Administration	0.0
Subtotal Administration	26.0%
On-Campus Organized F&A Cost Research Rate for WSU (FY 2002)	46.8%

Chart III

WSU Buildings and Percentage Used for Research

BUILDING NAME	BUILDING NUMBER	PERCENTAGE TO RESEARCH
FULMER	0003	30%
ENGINEERING TEACHING RESEARCH LAB BLDG	0058	45%
FOOD SCIENCE AND HUMAN NUTRITION	0816	51%
ANIMAL SCIENCES LAB BLDG	0100	64%
SCIENCE HALL – ABELSON HALL	0032	24%
CLARK HALL	0099	58%
WEBSTER PHYSICAL SCIENCE BLDG	0801	30%
VANCOUVER CLASS ROOM BLDG	6502	20%
ELECTRICAL MECHANICAL ENGINEERING BLDG	0078A	21%
JOHNSON HALL	0076	38%
WEGNER HALL	0045	23%
EASTLICK HALL	0082A	15%
BUSTAD HALL	0807	18%
WSU RESEARCH AND TECHNOLOGY PARK	0820	56%
GREENHOUSE REPLACEMENTS PUYALLUP	1034	53%
FREESTALL BARN 23 DAIRY FORAGE FACILITIY	1523	100%
MCCOY HALL	0044	17%
DANA HALL	0056	29%
KACKUS OFFICE LAB BLDG PUYALLUP	1010	45%
HELD HALL	0082	26%
EXPERIMENTAL ANIMAL LAB	0814	42%
SLOAN HALL	0078	23%
TROY HALL	0036	32%
HAMILTON LAB BLDG PROSSER	2068	27%
SWINE CENTER	0405	24%
ALBROOK HYDRAULICS LAB	0071	68%
IBC GREENHOUSE	0817A	70%
OVERLY LAB WENATCHEE	3006	31%
JOHNSON TOWER	0094	13%
VETERINARY TEACHING HOSPITAL	0818	1%
HOP RESEARCH HEADHOUSE PROSSER	2091A	86%
HOP RESEARCH HEADHOUSE PROSSER	2091B	91%
ENSMINGER BEEF CATTLE CTR MAIN	0404A	38%
IBC PLANT GROWTH FACILITY	0817	72%
SHOCK PHYSICS BLDG PULLMAN		100%
HEALTH SCIENCE BUILDING SPOKANE	9012	
vancover engineering and life sciences	6507	
PLANT GROWTH CENTER	122	
TURF RESEARCH BUILDING	0106	
entomology greenhouses	0111	
ENTOMOLOGY GREENHOUSES-SHOP/STOR BLDG	0111A	
PLANT SCIENCES GREENHOUSE	0114	
HORTICULTURE RESEARCH GREENHOUSE	0119	

- The Sponsored Projects Administration cost pool recovers the cost of organizational units established primarily to support the research or training effort regardless of the funding source.
 The primary elements in this pool are the costs associated with Business Affairs (e.g. Sponsored Programs Services) and Vice Provost for Research (e.g. Office of Grant and Research Development, Office of the Campus Veterinarian, Radiation Safety Office, and Office of Intellectual Property Administration.
- The Student Services Administration cost pool provides for graduate student services. This includes a portion of the costs of graduate student counseling, health services, the Graduate Admissions office and similar activities. However, current DHHS practice requires the allocation of all student services administration costs to instruction. Therefore, no student services administration costs are included in the existing F&A rate for research.

Once all F&A costs attributable to research are identified and calculated for a fiscal year, the sum becomes the numerator in the F&A cost rate calculation shown in Chart I. The modified total direct costs (MTDC) for the corresponding year are placed in the denominator. The resulting quotient is the proposed F&A cost rate. A component rate is calculated for each of the nine cost pools as shown in Chart II. Note that this method identifies costs associated with the facilities and administration of the university. It does not, however, dictate that the institution must actually spend recovered F&A fees according to this formula. Instead, the institution can choose to use these funds for other purposes while the institution can pay the above costs from other sources. However, it is important to note that F&A revenues typically pay for salaries, wages, benefits, goods, and services that are necessary for the completion of official university duties, as outlined in BPPM 70.03.

6. What is the administrative process for negotiating the final F&A cost rate?

Once the F&A cost information is assembled and appropriately documented, it is submitted to the Department of Health and Human Services (DHHS), which is the university's cognizant federal agency. DHHS negotiators from the Division of Cost Allocation for Region IX (in San Francisco) make their own evaluation of the materials submitted and seek to negotiate downward some of the costs included in the pools.

For the 2000 fiscal year, University documentation supported a rate of 49.67 percent for on-campus research. After extended negotiations with DHHS, the

University acceded to a final rate of 46.8 percent for the years beginning July 1, 2002 through June 30, 2006. These are the current on-campus research rates the maximum rate that the University is permitted to charge federal grants and contracts for the fiscal years specified. Note, however, that this rate is lower than the actual cost rate resulting from an analysis of the real costs. Another (lower) rate, currently capped at 26 percent, is established for off-campus research, for which some of the underlying costs such as building rental are charged directly to the grant and not borne as an F&A cost by the University. As has already been noted, the Federal government imposes selective restrictions on the F&A costs attributed to certain grants, such as the 8 percent rate on many training grants and 19 percent for research supported by the competitive grants process of the USDA.

7. What expenses are not allowable in cost pools according to revised *Circular A-21*?

Much of the public discussion of F&A costs in the early 90's focused on the four cost pools categorized as "Administration," in part because the guidelines in *Circular A-21* were often ambiguous with respect to expenditures allowed in this category. Whereas a number of administrative expenditures had been allowed before the intense scrutiny in 1991, new allowability standards were applied retroactively.

In the climate of the mid 1990's, it was no longer a question of whether Circular A-21 allowed expenditures, but whether it was considered reasonable by current "standards." In the turbulent atmosphere generated by congressional investigations, previous "unallowables" were made more explicit and new ones were added. Many universities had always acted conservatively and had routinely excluded borderline costs. Nevertheless, the redefined lists, applied retroactively, made some institutions appear to have been in violation of *Circular A-21*. The new and improved list of "unallowables" is presented below for ready reference.

Representative Unallowables

- Alcoholic beverages
- Alumni activities
- Institution-furnished automobiles for personal use
- Legal costs of criminal and civil proceedings, appeals and patent information
- Donations and contributions made by an institution
- Fund-raising activities
- Entertainment
- Executive and legislative lobbying

- Insurance against defects
- Fines and penalties
- Goods and services for personal use of employees
- Housing and personal living expenses of an institution's officers
- Memberships in any civic, community or social organization or country club
- Selling or marketing of goods or services

Under the current Circular A-21, none of these "unallowables" can be allocated through F&A cost pools to research, and the university must certify that they have been identified and excluded from the F&A proposal. The difficulty in identifying these unallowable costs can best be illustrated by the following example dealing with fund raising. The university rigorously excludes all costs associated with centralized fund-raising by eliminating all expenditures included in budget numbers established for this activity. However, similar costs in departments, schools, and colleges may be commingled in operating budgets and are less readily identified. As such, it is not a trivial task to determine if fund-raising expenses, which are allowable from a university perspective, but cannot be included in the basis for the F&A rate calculation, are included in unit expenditures on state accounts.

8. What are the typical elements of a research grant?

Chart IV (see below) outlines the budget for a typical research project in the sciences or engineering. Salaries and benefits often constitute 50 percent or more of the project budget and the goods and services component is often 10 percent or less of the total cost. These budgeted items are then added together to determine the Modified Total Direct Costs of the grant, the sum of which forms the basis for calculating the grant's F&A costs. Multiplying the project's MTDC by the institution's F&A rate for that year yields the grant's F&A cost amount. The F&A costs and the MTDC together typically comprise about 90 percent of the total award. Usually the remainder of the award involves various items of equipment that might be needed to carry out the research but which would be excluded from the MTDC calculation. If graduate students are supported, the graduate operating fee waiver (tuition) is also excluded from the MTDC calculation. Although Chart IV represents a typical project, the character of projects varies enormously across the institution. Although some grants can be as small as \$500 and some can be as large as \$5 million, each grant will use different resources and therefore have a different

Chart IV

Typical Research Grant Subtotals

Summer Salary-Faculty (1 summer month)	\$7,000
Post-Doctoral Research Associate (12 months, 100%)	24,000
Graduate Student Research Associate (12 month, 50%)	15,000
Subtotal Salaries	\$46,000
Employee Benefits (Faculty 27.0%, Postdoc 27.0%, Graduate Student 10.2%)	9,900
Subtotal: Salaries and Benefits	\$55,900
Goods and Services	3,138
Travel	1,500
Subtotal MTDC	\$60,538
F&A Cost (46.8% of MTDC)	28,332
Subtotal: (MTDC plus F&A)	\$88,870
Equipment	5,000
Graduate Operating Fee (Tuition)	6,130
TOTAL AWARD	\$100,000

Every grant is unique.

Every grant has different F&A cost impacts.

F&A cost impact within the institution. In fact, a small grant will generally use a disproportionate share of the services charged as F&A.

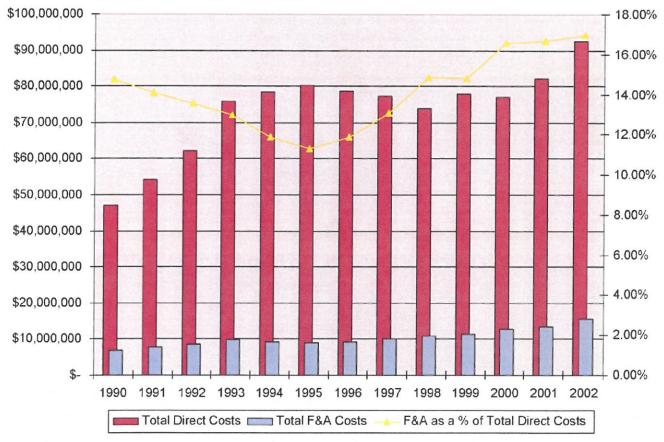
9. Why should my grant pay F&A costs?

It is not uncommon for faculty members to feel that when they successfully compete for a grant, the F&A cost component is something that they are bringing to the university and donating to the institution. From WSU's point of view, the faculty member's proposal really addresses the direct cost elements only, and when a federal agency or other sponsor funds the research, the direct cost commitment to the faculty member must be supplemented to pay for a share of the institutional cost of research. The reimbursement of F&A costs is a matter between the institution and the sponsor, based on the principles outlined in Circular A-21. From the sponsor's and the institution's point of view, the F&A cost component is distinct from the direct cost award, and in the best of circumstances it simply reimburses the institution for the real cost to the University of a specific research project. Moreover, should the University waive such indirect costs, the sponsor needs to recognize that the University is contributing to the cost of the research. As such, the University has additional rights for ownership of intellectual property, etc, which the sponsor may not otherwise consider to be a portion of the total cost of the research.

These contrasting perceptions can be a cause for misunderstanding. The faculty member feels that she or he is contributing significant F&A cost dollars to the University, whereas the administration maintains that the University is simply being appropriately reimbursed for the F&A costs of the project. Moreover, the sponsor sometimes feels that the institution should waive the F&A expenses, since they are not direct expenses for the grant. There is typically a tendency for faculty and the sponsor to underestimate the nature and cost of essential support services. All too frequently, the recovered F&A costs do not fully cover the actual F&A costs of such research. For example, in FY02, the actual F&A recovery rate was only 17 percent, while the cost of providing such services, as discussed above, was 49.67 percent as shown by Chart V (see below). In many instances the cost of

CHART V

WSU Total Direct Costs and F&A Recovery History



the space alone, if calculated at market rates, would be comparable to the full amount of the F&A generated by the grant.

The situation is even more complicated than the above analysis suggests. When a sponsor determines the amount of funds available to pay for the research, there is often no distinction between direct and F&A costs. The sponsor receives a total budget to carry out its program. Whatever funds the sponsor has to pay out for F&A costs are clearly unavailable to award for direct cost purposes. Thus, there is a fundamental trade-off made by the sponsor between direct and F&A costs, which makes this issue of legitimate concern to faculty considering the long-term funding prospects for their disciplines. Recognizing this tension, the National Science Board recently directed that the National Science Foundation couldn't allow the amount of cost sharing provided by an institution to be a factor in the review of proposals. Moreover, they directed that if the budget is reduced by more than 10 percent, a corresponding description of the associated reduction in the project scope must be negotiated with the program officer. Such changes reflect recognition of institutional contribution to the research enterprise.

Some faculty members feel that if they could force sponsors to reduce the F&A costs a university can recover, there would be more money for their research program. That tactic might work in the short term, if the "savings" were used to help fund a larger number of grants. However, in the longer term, if the University lost revenue in this way, it would be forced to cut services, staff and faculty positions, reduce available research space, and trim other expenses, so that any

initial advantage would be undermined or completely outweighed by later disadvantages. In reality, the university subsidizes many proposals for which the F&A cost rates are arbitrarily restricted by the agency. In light of this, the university continually strives to lower administrative costs and to conduct research in the most efficient and effective manner possible. Through these efforts, the university has lowered its costs, with more direct cost funds available.

10. What are the F&A cost charges to my grant actually paying for?

Chart VI (see below) shows a variety of activities and costs that are allowable components for calculating the University's overall F&A cost rate. While central administrative expenses may be the component of F&A costs that come most readily to mind, many institutional resources are used in support of research. A given project will require some of the resources on the list more than others, but most projects draw on all F&A cost pools. Moreover, a proposal seeking funds for a fairly small project, and the subsequent award, typically will require proportionately much more of the services associated with F&A expenses than does a grant with a million dollar budget. Since a number of F&A cost elements that support a grant represent fixed costs, it can be argued that smaller projects should pay higher rates.

In reality, a variable rate structure would not only be cumbersome to apply, it would also be inconsistent with the government's *Circular A-21* guidelines. Researchers in the humanities typically receive smaller grants. They

Chart VI

Representative Resources Allowed As Indirect Costs

Advertising Costs (for Personnel) Affirmative Action Monitoring Animal Care Review **Bond Interest Building Depreciation** Central Administration College Administration Communications Costs Computer Facilities and Services **Custodial Services** Department Administration **Employee Benefits** Environmental Health and Safety General Accounting Graduate Student Admissions Graduate Student Services

Grant and Contract Accounting
Grant and Contract Services
Human Subjects Review
Library Services
Maintenance/Operations
Payroll Office
Personnel Office
Purchasing Office
Risk Management
Security (Campus Police)
Selected Publications
Selected Subscriptions
Seminar Costs
Transportation Costs
Utilities

sometimes wonder what the purpose of F&A costs are. Anyone receiving an NEH summer research salary of \$5,000 in FY 2003 would generate an additional 46.8 percent in federal funds, or \$2,344 for F&A costs. They may feel that they do not need laboratory space and expensive equipment and should instead be assessed at a different rate. A more comprehensive look reveals that more of the institution's resources are used than seems apparent on casual reflection (for example, costs for maintaining the library and its collection, support of graduate student assistants, and the cost of grant accounting and administration).

The library is another example of a major resource necessary for research, but often taken for granted and not recognized as a component of F&A costs. The library is used by virtually everyone engaged in scholarly activity, and the availability of this asset depends to a significant degree on the flow of F&A cost reimbursements to cover a portion of the costs of the university's library system. Some may argue that they don't use the library, but access journals electronically from his/her office. Yet, access to electronic journals is provided, in part, from money made available from F&A recovery.

The increasing number and complexity of requirements imposed by the federal government to ensure compliance with various regulations also contribute to F&A costs. Chart VII (see below) lists new or revised federal regulations that have come into effect just since 1988. The new regulations require the University to institute new or expanded monitoring activities, to submit certifications, and, in general, to handle a great deal more paperwork than ever before.

11. How has the F&A cost rate changed over the years?

Chart VIII (see page 12) shows how the F&A cost rate has remained relatively unchanged at Washington State University during the last two decades. In 1979 the federal government revised Circular A-21 and changed the base from salaries and wages to the MTDC approach discussed earlier. As a result, F&A cost rates at the University have been applied on an MTDC basis starting in FY 1981.

During the early 1980's, the University was successful in negotiating with the State of Washington to change the way in which the F&A cost funds received by the University were handled. Until that point, the F&A cost funds reverted to the State. In return, the State made an offsetting adjustment in the University's budget based on a forecasted amount (invariably too low) for such costs. Even if WSU subsequently generated more F&A cost reimbursement, it usually did not have access to the excess.

In 1983, the State and the University agreed to a revenue-neutral transfer of authority for the F&A cost component of the budget. In other words, the State agreed to allow the University to retain its F&A cost reimbursements as received, and discontinued the offsetting adjustment. From that year forward, any increases in F&A cost reimbursement received by the University have accrued, in essence, to the institution. This approach provides the University greater flexibility and increased incentive to recover a more realistic portion of the F&A costs. As Chart VIII shows, the F&A cost recovery rate has remained flat through the past decade and early part of the new millennium until just

Chart VII

Federal Rules/Regulations Since 1988

Anti-Kickback Act (1988)
Anti-Lobbying Rules (1990/92/95)
Certifying Accuracy of Indirect Costs (1991)
Circular A-21 Revisions (1991/93/96/98)
Circular A-110 Revisions (1993/99)
Circular A-133 Revision (1997)
Clean Air Standards (1988/90)
Clean Water Standards (1988/90)
Conflict of Interest (1995)
Cost Accounting Standards (1995)
Debarment and Suspension (1989)
Drug Free Workforce (1989)
Americans with Disabilities Act (1990)
Small Business Subcontracting Plan (1990)

Drug Free Schools and Campuses Act (1990)
Hazardous Waste Disposal (1998/90)
Human Subjects Training for NIH PIs (2000)
Medical and Infectious Waste (1988/90)
Misconduct in Science (1989)
Non-Delinquency of Federal Debt (1989)
NEA Clause on Obscenity (1990)
PHS Policy on Instruction in Responsible
Conduct in Research (Pending 2000)
Procurement Integrity (1990)
Radioactive Waste Disposal (1988/90)
Right to Know Laws (1988/90)
Y2K Requirements (1999)

this year where the rate has increased, reflecting more costs and an effort to recover sums that more nearly approximate the University's actual expenditures. Nevertheless, the actual recovery rate is still less than 17 percent, while the negotiated rate is 46.8 percent and the actual expenses are nearly 50 percent.

12. How does our overall F&A cost rate compare with other universities?

Chart IX (see page 13) shows that F&A cost rates vary greatly among WSU peer institutions, and indeed a few institutions not shown on the graph lie outside the 43 percent to 58 percent range. The average rate among all research universities is around 50 percent; private universities have an average rate about 7 percentage points higher than that figure, whereas the average rate for public universities is approximately 3 percentage

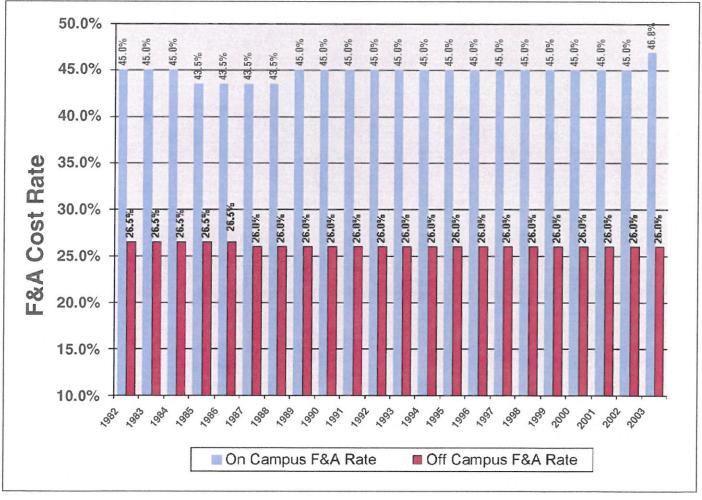
points lower than the overall average.

The differences in F&A cost rates have often been cause for scrutiny and discussion. There are a number of factors that give rise to these differences. The first factor to consider is the Buildings and Improvements cost pool. An institution that has a large number of research facilities, with some built recently at higher cost will have higher depreciation expenses than an institution that has a smaller and/or older physical plant. Thus, at WSU, where many researchers enjoy access to new facilities because nearly \$1 billion was expended on new buildings during the 1990's, this factor is a significant portion of the F&A rate. Additionally, private institutions generally try to recover as fully as possible the cost associated with research facilities, whereas public institutions have tended to be less aggressive, since their buildings are often funded

Chart VIII

Washington State University

On-Campus Federal Research F&A Cost Rate, 1980 - 2003



in part by the state.

In some states, F&A cost rates have deliberately been kept low on the theory that aspiring research institutions would be more competitive for federal grants. Such decisions can result from a deliberate plan by the state and university to subsidize their research programs with nonfederal resources.

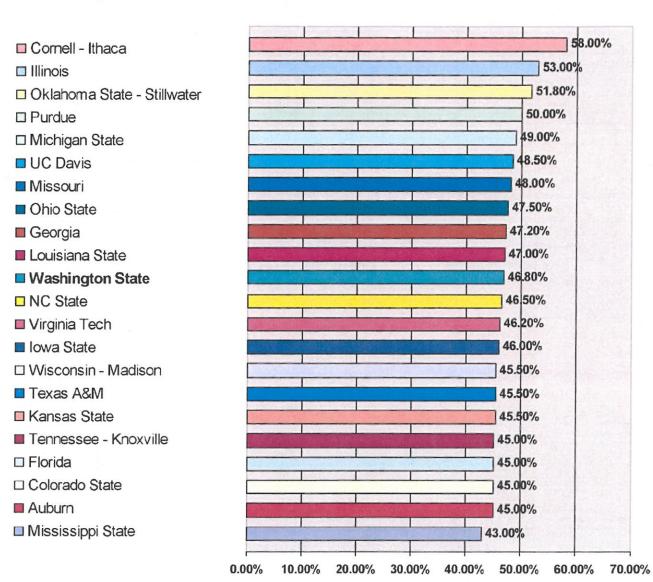
Significant differences, especially in the Buildings and Improvements and Equipment cost pools, also result when an institution decides to change from the use allowance method (simplified depreciation methodology) to a full depreciation calculation. This

approach can be used to justify a significantly larger F&A cost return if the institution is willing to bear the cost of a much more extensive accounting effort. Many universities, both public and private, use full depreciation and WSU is proposing switching from the simplified method to full depreciation also. The additional accounting costs can be added to the F&A cost pools for administration, assuming that sum does not exceed the 26 percent cap.

Costs may also differ because of internal institutional policies regarding direct versus F&A costs and how they are defined. For example, at some universities equip-

Chart IX

F&A Cost Rates of WSU Peer Universities On-Campus Federal Research FY 2003



ment maintenance costs may generally be considered as F&A costs, while at others, they may be charged directly to the grant. In the same way, some institutions directly charge costs for animal care and disposal of radioactive materials directly to grants, while WSU has incorporated such expenses into the F&A, so that researchers are not tempted to not request needed animal care or to dispose improperly of radioactive wastes. As a result, a given university may show higher direct costs and lower F&A costs than comparable costs at WSU, even though the actual cost of the particular function is exactly the same at the two institutions.

Simple variations in the cost of utilities or labor in different geographic areas may contribute to rate differences. A study in 1988 showed electricity costs in the New York area were ten cents per kilowatt-hour compared to two cents per kilowatt hour in the Seattle area. Costs in Seattle have since gone up significantly, but they are still lower than most areas of the country. Similarly, heating and air conditioning costs vary widely across the country, as do labor and construction costs.

Thus, it is generally conceded that there are legitimate differences in costs between institutions that should be recognized by the federal government and other sponsors. However, it can be argued that institutions which arbitrarily limit themselves to F&A cost rates below their actual costs are simply allowing the granting agencies to underwrite disproportionately more services and newer facilities at competing institu-

tions with relatively higher rates.

13. Are the cost category percentages similar at most research institutions?

There are actually substantial variations between cost categories at several WSU peer universities. Chart X (see below) shows cost category percentage points for the negotiated on-campus F&A cost rates at selected universities during fiscal year 2003. The chart shows rates ranging from 43.0 percent to 48.5 percent, with Washington State University near the middle at 46.8 percent.

Clearly, values for some cost pools differ widely. For example, total facilities costs range from 17.0 percent at Mississippi State University to 22.5 percent at Purdue University. The data reveal that one of the main reasons for the difference is in the Buildings and Improvements, Interest and Equipment cost groups. For these cost pools, Purdue's rate is 11.0 percent compared to 4.5 percent for Mississippi State. Indeed, in most cases, space costs are the single most important factor for F&A cost rate differences between institutions.

Prior to 1991, it was often argued that growing administrative costs were a major reason for substantial increases in F&A costs rates. While this argument had little validity before, it is now entirely without merit. The 1991 revisions to *Circular A-21* placed a 26 percent cap on administrative costs (General Administrative, Departmental Administration, Sponsored Pro-

Chart X

Percentage Comparison of F&A Cost Components of Selected Peer Institutions

Institution	Bldgs.	Equip.	Interest	Oper. & Maint.	Library	Total Facilities	Total Admin	FY2003 Rate
Purdue	4.20%	6.80%	0.00%	10.10%	1.40%	22.50%	26.00%	48.50%
Washington State	3.30%	6.10%	0.90%	9.00%	1.50%	20.80%	26.00%	46.80%
NC State	3.20%	3.20%	0.00%	12.50%	1.80%	20.70%	25.80%	46.50%
Iowa State	3.50%	4.10%	1.80%	9.50%	1.10%	20.00%	26.00%	46.00%
Kansas State	2.40%	4.00%	0.00%	11.50%	1.60%	19.50%	26.00%	45.50%
Auburn	2.00%	3.50%	0.80%	11.50%	1.20%	19.00%	26.00%	45.00%
Colorado State	1.30%	3.80%	0.00%	12.00%	1.90%	19.00%	26.00%	45.00%
Tennessee - Knoxville	3.00%	3.80%	2.30%	9.40%	1.80%	20.30%	24.70%	45.00%
Mississippi State	1.50%	3.00%	0.00%	11.50%	1.00%	17.00%	26.00%	43.00%
Average	2.71%	4.26%	0.64%	10.78%	1.48%	19.87%	25.83%	45.70%

grams Administration, and Student Services Administration). Chart X indicates that the current ranges for WSU's peer institutions are 24.7 percent to 26 percent, with 6 of the 8 universities at 26 percent.

The Operations and Maintenance component is another area with substantial differences. For instance, WSU's rate of 9.0 percent could be attributable to newer buildings and less maintenance compared to Mississippi State's rate of 11.0 percent, where buildings are older and thus, require much more maintenance.

Washington State University rates are fairly typical. The F&A cost rate increases in the last proposal resulted from the facilities component and not from the administrative component. With the administrative component being capped at 26 percent, and with us exceeding the cap, our actual increases are directly linked to the increased cost of our facilities component.

14. Why should I pay the same rate as my colleague for F&A costs?

Implicit in the accepted procedures for determining F&A costs is the notion of averaging. It has been a principle with the federal government that there should be a single F&A cost rate for each institution's on-campus research. Since every grant is different and places unique demands on the institution's resources, some grants recover more than actual costs and some recover less. Nevertheless, everyone should be aware that since the recovery of F&A costs is generally well below the actual cost of supporting research, probably no one is paying more than could be justified, even though someone may be paying relatively more than another colleague.

The disadvantages of using an average rate can be easily stated. It is obviously not a precise method, and it lacks strong incentives for efficiency. Questions of fairness arise because comparisons can be made that seem to suggest that one person is at a disadvantage relative to another. But the alternative to averaging would have few proponents. It would require an extremely complex (and costly) accounting effort to attribute a different F&A cost rate to each grant. Substantial fluctuations in cost recovery rates would arise, depending on when a person utilized a particular resource, the starting date of a grant compared to the fiscal year and so forth.

The averaging approach is a convenient and straightforward method. The differential impacts tend to balance out over time, and the stability of the rate is an advantage for most PI's. If one takes into account the broad range of variability over time and over various research activities, the averaging approach seems the best of admittedly imperfect alternatives.

15. How much F&A cost reimbursement accrues to WSU?

When the University announced a total of over \$108 million for grant and contract awards (this includes Federal/State work study programs) during FY 2002 (see Chart XI on page 16), some observers might have made a quick back-of-the-envelope calculation and estimated that a 46.8 percent F&A rate must have yielded the University approximately \$50 million in F&A costs. This is incorrect since the \$108 million figure already includes F&A costs along with the fact that the University does not collect full F&A revenue on all awards.

A revised calculation might suggest that direct costs for grants of about \$75 million must have yielded \$33 million in F&A costs, the two together totaling \$108 million in FY 2002 awards. (If the rate is 45 percent, then for each dollar in direct costs, the F&A cost is \$0.45, making the total cost \$1.45, and the fractional F&A cost rate applied to the *total* is 31 percent.) This is a more appropriate calculation but it is still not correct. It is not appropriate to apply the rate to the Total Direct Costs (TDC), since F&A costs are calculated based on MTDC, as described earlier, not TDC. Further, research activities carried out at the Energy Office and other offsite locations such as research stations are charged at a lower rate because many underlying costs (facilities costs, for example) are borne by the grant or contract, or by other entities. Most training grants, for instance, are capped at an eight percent rate, while the USDA caps competitive proposals at 19 percent, and special grants at zero percent. In a similar way, commodity commissions typically pay no F&A costs for research they sponsor, while grants from private foundations are often lower than the actual cost, with some allowing only 10 percent for F&A costs. The net result of all of these factors means that the effective recovery rate for F&A costs is substantially below the maximum 46.8 percent on-campus rate allowed for federal grants at WSU. In fact, in FY 2002, the effective F&A rate was only 17 percent. Thus, unlike the first calculation in which a researcher may have erroneously estimated that \$47 million was recovered as F&A costs, in fact only about \$15 million was recovered as F&A costs.

Chart V shows the effective recovery rate at Washington State University during the last twelve years. The average for the entire period is about 13 percent if calculated on a TDC base. If the calculation is made on modified total direct costs (MTDC), the percentage is slightly higher, but nowhere near what people generally believe it to be. The effective rate of F&A cost recovery for *all* federal grants and contracts in FY 2002 was about 17 percent, not the negotiated maximum of 46.8 percent. The actual F&A costs recovered in FY 2002 were approximately \$15 million, rather than the \$47 million that may have been estimated by some.

16. How does funding from the State of Washington fit into the picture?

The University's total annual budget is about \$594 million (FY02), and the State of Washington provides approximately 32 percent of this total. Tuition revenue provides another 13 percent. Roughly 26 percent of the budget involves WSU 's locally generated non-state funds for the student housing and food services, self-sustaining units, and other auxiliary enterprises. About 23 percent is provided through grant and con-

tract activity, including F&A cost reimbursements, as described in the previous discussion. Most of the remainder is from capital and gifts.

The portion from the State includes partial support for graduate teaching and associated research activities at the University. This is provided primarily in two ways. First, the State pays the salaries of the faculty, who spend a portion of their time in graduate teaching and research. Some staff and operations support for the faculty is also provided by the State. The second way involves capital facilities; in the past, the State has

Chart XI

WSU Grant and Contract Awards by Area, FY 2002

Includes Federal/State Work Study and Pell Grant Funds

AREA	Total Expenditures	F&tA	Actual Rate
Provost and Academic Vice President	\$245,636	\$10,250	4.35%
Vice President – Student Affairs	\$3,038,922	\$328,749	12.13%
College of Agriculture & Home Economics	\$887,332	\$82,658	10.27%
College of Engineering & Architecture	\$12,979,672	\$2,128,240	19.61%
College of Nursing	\$738,743	\$36,841	5.25%
College of Sciences	\$17,906,119	\$3,700,540	26.05%
College of Liberal Arts	\$2,355,283	\$331,997	16.41%
College of Veterinary Medicine	\$13,043,067	\$1,940,184	17.47%
College of Business & Economics	\$2,158,776	\$238,964	12.45%
College of Education	\$3,298,161	\$270,704	8.94%
College of Pharmacy	\$2,623,786	\$647,919	32.79%
Graduate School	\$197,898	\$10,080	5.37%
International Programs	\$1,700,100	\$261,240	18.16%
Holland/New Library	\$48,773	\$0	0.00%
Athletics	\$55,995	\$0	0.00%
Information Technology	\$1,391,427	\$0	0.00%
Assistant Vice President for Business Affairs	\$1,227,102	\$0	0.00%
Agricultural Research Center	\$20,619,929	\$2,416,154	13.27%
Office of Research	\$3,438,526	\$670,610	24.23%
Cooperative Extension	\$12,242,599	\$1,415,424	13.07%
Washington State University – Tri-Cities	\$2,274149	\$480,816	26.81%
Washington State University – Spokane	\$3,629,060	\$359,761	11.00%
Washington State University – Vancouver	\$2,100,092	\$363,075	20.90%
GRAND TOTAL – SPONSORED RESEARCH	\$108,201,147	\$15,694,175	16.97%

provided a significant share of the construction and renovation funding that supports the graduate teaching and research program. For a variety of reasons, including less than full recovery of F&A costs on some awards from the federal government, the University doesn't fully recover its portion of the cost of capital facilities from F&A costs. Inflation over the life of the buildings also makes it necessary to find additional funding sources for building construction and renovation. Furthermore, the growth of the research enterprise has made it necessary to build additional buildings to house this work. In essence, the State has been a partner with the University in funding these new and renovated facilities that support graduate teaching and associated research activities.

To support one of WSU's strategic initiatives (Facilities for the Best Undergraduate Experience and World Class Research, Graduate Education and the Arts) the University requested the following capital amounts for 2003-2005 capital projects; 1) Johnson Hall Addition – Plant Biosciences \$35,200,000, 2) Education Addition 'Cleveland' \$11,160,000, 3) Biotechnology/Life Sciences Facility \$6,500,000, 4) Biomedical Facility design cost \$250,000, 5) Campus Infrastructure \$23,000,000, etc. As shown above, the University and State's commitment to our strategic initiatives remains the focus of our new funding requests.

Compared to its capital and salary expenditures at the University, the State provides small amounts for direct research funding. Total unrestricted State funding for research amounts to about \$23 million per year, most of which is associated with the Agricultural Research Center and several Advanced Technology Initiatives.

17. How important is F&A cost reimbursement to the University?

Chart V shows growth of both direct and F&A cost at Washington State University during the last twelve years. F&A cost reimbursement is the primary source of infrastructure support for WSU 's extensive graduate education and research programs. The F&A cost reimbursements pay for a wide range of support services and administrative activities. They make it possible for the institution to operate a first-rate library system for research and scholarship; they also allow us to service, maintain, and renew our research facilities, the lifeblood of the University. Recently, some of this money has been reinvested to build the research enterprise. Without the F&A cost reimbursements, our research and graduate teaching enterprise would be only a shadow of its present size and quality. Indeed, without the growth in F&A recoveries, WSU would have been faced with very painful budget cuts in the late 1980's

and early 1990's, and recent budget cuts would have been much worse than those experienced.

Anyone who has submitted grant proposals during the last ten years is aware that the on-campus research F&A cost rate has remained at approximately 45 percent from 1982 through 2002. While the rate has been constant, the amount of F&A cost reimbursement has increased from \$8 million in 1990 to \$15.3 million in 2002, primarily because of the increase in grant and contract awards and a concerted effort to recover as much of the real cost of research as possible. F&A cost reimbursement made up 22 percent of DOF (Local Designated Operating Fund) revenue in FY 2002. Other significant DOF revenue sources were self-sustaining local funds with 54 percent of the total, administration fees and investment income with 17 percent of the total, and engineering fees with seven percent of the total. It should be noted that investment income could vary considerably from year to year based on the performance of the University's investment portfolio. If investment income were to decline sharply, the percentage of the total fund provided by the other revenue sources would increase proportionately. Even considering the other DOF revenue sources, by far the biggest contributor to the increase in the fund revenue has been the increase in F&A reimbursement.

18. How are F&A reimbursements allocated?

Most grants and contracts pay the university facilities and administrative cost recovery (F&A) fees. These payments are meant to reimburse the university for costs associated with use of the physical facilities and other university support that are not billed directly to the grant or contract. F&A funds are an important revenue source for the university. It is necessary and usual to combine them with other revenues, such as state appropriations, for general university support.

At WSU, F&A revenue contributes to the permanent budget level (PBL) for the following: graduate assistantships, grants-in-aid, libraries, utilities, facilities maintenance, environmental health services, sponsored project finance, payroll, accounting, purchasing, radiation safety, grant and research development, and equipment matching.

WSU returns some F&A revenue to the units that generate it. This is to reimburse these units for their own facilities and administrative costs and to stimulate further research. Prior to FY 2000, allocations to academic units were based on estimated future F&A revenue for the fiscal year. The allocations to units were proportional to the actual revenue they collected during the previous year ending in April. The calculation and distribution method were hard to understand,

so beginning in FY 2000 the following simpler method was adopted.

Allocations of both domestic and international F&A revenue to units are distributed according to the following policy that has been approved by the Budget Council. F&A allocations to units are made quarterly based on actual F&A amounts collected the previous quarter. Each area is allocated 23 percent of gross F&A revenue collected, with 65 percent of the allocation (15 percent of F&A revenue collected) going to the department, and 35 percent of the allocation (8 percent of F&A revenue collected) going to the dean. The department is responsible to make some of the F&A revenue allocation available to the principal investigator to assist with grant administration, travel, student assistants or other expenses. In addition, departments and deans are responsible to provide administrative support to centers, since they do not receive F&A allocations directly.

For projects at urban campuses, the allocation for academic support is different depending upon whether or not there is participation by an academic department. For projects with academic unit affiliation, the allocation of 23 percent of F&A collections is split equally between the urban campus and academic dean. For projects without academic department involvement, the entire allocation of 23 percent of F&A collections goes to the chancellor. In addition to the allocation for academic support, urban campuses receive 38 percent of gross F&A collections as an allocation for physical plant and campus support. Libraries receive an allocation of seven percent of forecasted gross F&A revenue collections, with an allocation at the start of the year based upon budgeted F&A revenue and a supplemental allocation near the end of the fiscal year based upon the forecast of actual year-end revenue.

19. How are F&A cost reimbursements related to University expenditures?

University budget policies have, in general, allocated F&A cost reimbursements to the support of research in a manner consistent with the pattern of expenditures in the University's audited F&A cost studies and rates. Given that WSU does not recover all its F&A costs, the effective rate is less than the audited rates, other University funds must be used to help pay for these activities.

Although the F&A cost processes identify the costs incurred in supporting the research program (as outlined earlier in this document), the actual budgeting process cannot allocate funds efficiently on a simple item-for-item basis. For example, a \$100,000 federal research grant may generate an F&A cost payment of roughly \$28,000 (see Chart IV), but it would not be practical to restrict expenditure of the \$28,000 solely

to the F&A costs incurred by that specific grant in that particular year. (The roof may not need to be repaired that year.) It may help to recall the definition of F&A costs as "those that are incurred for common or joint objectives, and therefore cannot be identified readily and specifically..."

In general, a much more macroscopic approach is called for when dealing with expenditures. When the University develops its budget for a particular biennium, it starts with an estimate of the total revenues available for that biennium, including State funding, tuition, F&A cost reimbursement, interest and investment income, and so on. Arrayed against this projected total income figure is the wide range of anticipated expenses that must be funded. Some expenses are relatively predictable, such as salaries, but other categories cannot be pinned down as easily in advance. Utility costs, self-insurance costs, regulatory compliance costs, responses to competitive salary offers, special matching requirements for major equipment proposals, as well as many other costs that cannot be accurately predicted.

Just as in any budgeting process, prudent judgments must be made to try to match total projected income with total projected expenses, including planned improvements and new programs. In this process, efforts are made to relate the projected F&A cost of research and training to the estimated F&A cost reimbursements. In practice, all the previously mentioned funding sources are combined to support the total budget identified in the University's policy-based and priority-driven budget process. The expenses identified in the cost study used to justify the F&A cost rate are real expenses that have been paid for by the institution from the total pool of available fund sources.

Conclusion

It is hoped that this account of the nature and present management of F&A costs will be of value to the University community. While the subject is of immediate relevance for those who propose and are awarded research grants, it is important that members of the faculty, staff, and student body recognize that funding for a proportion of the University's programs is derived from F&A cost reimbursements.

The purpose of this overview is to promote a broader understanding of these issues. An ongoing goal is to address responsibly any questions and misunderstandings regarding F&A costs and to elicit carefully reasoned suggestions for improving our present practices

to enhance the environment for teaching, research and scholarship at WSU. An increasingly important and parallel objective is to clarify this complex subject for the constituents, on whose support and advocacy we depend. As pressure on federal budgets mounts and efforts are made to adjust federal funding patterns, an informed and united academic constituency will be necessary to sustain reasonable funding levels for research and for higher education more generally.

James Petersen Vice Provost for Research Barry Johnston Director Business Services/

Acknowledgments

Special thanks go to the staff of the University of Washington. Much of what is presented here is a result of their efforts to produce and share their primer from which much of the preceding information was garnered.

This study has benefited from the numerous suggestions and financial information provided by the Office of Sponsored Programs Services, the Office of General Accounting, the Office of Grant and Research Development, and the Office of the Provost. The Business Services/Controllers Office and the Office of Research thank all those who helped make this primer possible.

Sources

Office of Management and Budget, OMB *Circular A-21*, 'Cost Principles for Educational Institutions,' Washington, D.C., February 26, 1979.

American Council on Education, The Council on Government Relations of NACUBO. 'Direct and Indirect Costs at Colleges and Universities,' Washington, D.C., 1981.

University of California at Los Angeles, Office of Contract and Grant Administration, Contract & Grants Newsletter 89-91, 'Indirect Costs', Los Angeles, July 1981.

Cornell University, Office of the Vice President for Research and Advanced Studies, 'Accounting for the Full Cost of Research: A Study of Indirect Costs,' Prepared by Rebecca Vallely and James Zuiches, Ithaca, 1987.

The Council on Governmental Relations, 'Indirect Cost Rates at Research Universities: What Accounts for the Differences,' Washington, D.C., November 1987.

Stanford University, '1986-87 Decanal Indirect Cost Study,' Prepared by Rick Biedenweg and Dana Shelley, Palo Alto, 1988.

Association of American Universities, AAU Ad Hoc Committee on Indirect Costs to the Executive Committee of the Association of American Universities, 'Indirect Costs Associated with Federal Support of Research on University Campuses: Some Suggestions for Change,' Los Angeles, September 1988 (commonly known as the Pings Report).

The Council on Governmental Relations, COGR Meeting Report, Executive Summary, 'Indirect Costs Associated with Federal Support of Research on University Campuses: Some Suggestion for Change,' A summary of the AAU report, reviewed by COGR, Washington, D.C., October 1990.

Office of Management and Budget, 'OMB Proposes New Policies to Curb University Abuses of Indirect Cost Rates,' An announcement of Director Richard Darman's proposals, Washington, D.C., April 22, 1991.

National Science Foundation, Office of the Inspector General, 'Federally Sponsored Research: How Indirect Costs Are Charged By Educational and Other Research Institutions,' Washington, D.C., September 1991.

Office of Management and Budget, 'Final Cost Principles for Educational Institutions,' Volume 56, No. 192, Washington, D.C., October 3, 1991.

University of California at Los Angeles, 'The Indirect Costs of Research: New Challenges for Administrators and Faculty,' Report prepared by Albert Barber, Special Assistant to the Chancellor, Los Angeles, November 10, 1991.

Association of American Universities, 'Memorandum: Supporting Material for NIH December 11 Hearing on Indirect Costs,' Washington, D.C., November 25, 1991.

Office of Management and Budget, 'OMB *Circular A-21*, "Revised Transmittal Memorandum 5,"' Washington D.C., July 15, 1993.

University of Washington, Office of Research, 'A Primer on Indirect Costs,' Seattle, May 1996

Office of Management and Budget, 'Final Revision and Recompilation of OMB *Circular A-21*,' Washington D.C., May 8, 1996.

National Science Foundation, Division of Science Resources, 'Survey of Research and Development Expenditures at Universities and Colleges,' Fiscal Year 1998.

Office of Management and Budget, 'OMB Circular A-21, Revised,' Washington D.C., October 27, 1998.

Science and Technology Policy Institute, 'Paying for University Research Facilities and Administration,' Prepared by Charles A. Goldman and T. Williams with David M. Adamson, Kathy Rosenblatt, July 2000.