

An Introduction to Indirect Costs at UC Santa Barbara

Extramurally funded research at research universities in the U.S. is conducted under the accounting principle of total cost recovery, including indirect costs. These indirect costs capture the share of the facilities and administrative costs that are attributable to the research. In this document, we review the principles, policy, and practice of indirect cost recovery at UC Santa Barbara.

The reimbursement of indirect costs resulting from federally-funded research is governed by the Office of Management and Budget (OMB) Circular A-21, entitled "Cost Principles for Educational Institutions". The May 1996 revision of OMB Circular A-21 replaced the term "indirect costs" with the term "facilities and administrative costs" (F&A costs). In this document, the terms "indirect costs", "overhead", and "F&A costs" are used interchangeably.

Acknowledgments

This document is not an original document, and in fact several variations of it are used at various research universities. I have adapted this version from one developed by Dr. Charles Louis at UC Riverside. The UCR document was in turn adapted from one developed by a UC Berkeley committee chaired by Dr. Beth Burnside, VC Research. Indeed, the process of producing the UCSB document went well beyond the usual meaning of adaptation, since whole sections are copied directly from the earlier documents, with permission of the authors. We graciously thank them for making this material available for use at UCSB. They used as a source a draft primer describing UC indirect cost policy developed at the UC Office of the President. The UC primer was in turn based (with permission) on a primer written by Alvin Kwiram, the former Vice Provost for Research at the University of Washington. My understanding of these issues has also benefited a great deal from discussions with several senior research officers from the University of California campuses and other universities.

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Vice Chancellor for Research
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1. Context

The principle of total cost recovery for extramurally funded research, including recovery of indirect costs, is essential to the successful operation of American research universities. Each university charges indirect costs to the funding agency to cover the expenses of research administration and the depreciation, maintenance, and operation of buildings and major equipment. Because these costs cannot be attributed to individual research grants, the government recognizes the need to account for these costs in the aggregate and distribute them by formula to all extramural funds.

This document is intended to provide a common understanding of indirect cost principles and policy to faculty and staff at UCSB.

2. What are indirect costs?

In every institution carrying out research, a significant fraction of the costs, typically 40%, are incurred in providing the necessary physical infrastructure and administrative support. For the cost of research to be fully covered by a grant from an external agency, these indirect costs must be charged to that grant.

The concepts of direct and indirect costs apply in almost any business. At a restaurant, for example, the direct costs cover the groceries and the wages of the people who prepare the food and serve it. The indirect costs include rent, utilities, insurance, and accounting services. The charge for a meal covers direct costs, indirect costs, and profit.

The principle of total cost recovery for research is generally considered to be one of the central reasons for the success of American research universities over the last fifty years. It has allowed the universities to build the sustainable infrastructure needed for efficient operation of research. European and Asian university systems have recognized the importance of total cost recovery fairly recently and are moving to the American model, although the change in accounting procedures is a difficult one to make.

The mechanism for accounting the indirect cost of research is the facilities and administration (F&A) cost rate. The separation of direct from indirect costs is codified in OMB Circular A-21, which provides the following definition of direct costs: "those costs that can be identified specifically with a particular sponsored project... relatively easily with a high degree of accuracy." By contrast, indirect costs are defined as "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." Indirect costs are those involving resources used collectively by different individuals and groups, making it difficult to assess precisely which users should pay what share.

Those direct costs easily identified with and assigned to a specific research project are paid by its direct grant funding. In most cases it is easy to make this distinction. For example, if an investigator has to buy a chemical for a specific experiment, then that clearly is a direct cost. On the other hand, an investigator's use of electrical power, water, and other utilities, or the services of the purchasing and accounting offices, are not normally charged directly because it is not practical to account for this investigator's use of these services individually. For example, installing individual meters to monitor usage levels of electricity, and carrying out the associated accounting and billing functions, would cost more than the electricity itself.

Attributing an appropriate F&A cost amount to an individual investigator for the use of research space for grant-related activities would 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. For example, each faculty member may have several grants, which may use common space differentially. An obvious example of this problem would be the difficulty of appropriately attributing a cost for the repair of a

section of the roof (which may last 20 to 30 years) to a specific grant. A space survey to identify the percent of campus space used for research is a much more sensible and cost-effective mechanism for the university to recover F&A costs for research space.

3. Background: the history of federal support for research

In November 1944 President Roosevelt wrote a letter to Vannevar Bush, the Director of the wartime Office of Scientific Research and Development, asking how the potential of research could be applied to society's nonmilitary needs after the war. The report that Vannevar Bush wrote in response, "Science – the Endless Frontier," served as the primary blueprint for the federal support of science through the rest of the century. The American research university evolved over the next twenty years in response to the rapidly increasing demand for higher education and the even more rapid expansion in federal support for nondefense R&D. This massive national investment in science and technology led not only to great scientific discoveries but also to new industries, to improved medical care, and, when coupled with the American economic system, to leadership in a growing global economy.

Very early in this buildup of federal support for research, the issue of the indirect costs to the institution of supporting this research was addressed. It became apparent that university-based research infrastructure could expand and successfully support more research only if the indirect costs were reimbursed. The Office of Naval Research (ONR) was first to recognize this need and to provide such reimbursement. 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 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 8%. In 1958, the general rate for NIH was fixed by law at 15 %, and then raised to 20 % in 1963. 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 federally funded research projects**. However, in 1991, a change to OMB Circular A-21 was implemented which limited recovery for administrative costs to 26% – even if actual costs exceeded the 26% cap. The guidelines in Circular A-21 provided a mechanism for universities to receive reimbursement for their costs, but the guidelines also imposed new compliance and reporting standards, requiring detailed documentation.

4. Does the university make a net profit on extramurally supported research?

No. It is widely understood that the primary support for research from the university's core budget comes in the form of salaries for faculty doing the research. It is less well known that the university provides about 25% of the actual cost of facilities and administrative support for extramurally funded research, over and above what it collects in indirect cost return. Of course there are several good reasons for a university to invest in its own research program. Research benefiting society is one of the university's primary missions. In addition, a university's reputation is based partly on the excellence of its research, and the opportunity to participate in high-quality research can attract some of the best students.

The definitive study about F&A costs is "Paying for University Research Facilities and Administration," written by Charles A. Goldman and T. Williams of the RAND Science and Technology Policy Institute and funded by the Federal office of Science and Technology Policy. The authors report that **the actual F&A costs of supporting research at research universities substantially exceeds that reimbursed by A-21 policies**. Thus all research universities, including UCSB, are subsidizing research from sources other than F&A cost reimbursement by sponsors.

The formal rate of reimbursement of F&A costs is negotiated between the institution and the federal government, starting with the principles of OMB circular A-21. At UCSB, as at most universities, the indirect cost recovery rate represents about 75% of what would be needed to recover fully the allowable indirect costs. This rate is lower than needed for full cost recovery because universities traditionally agree to a lower rate, and the government expects it.

The current negotiated F&A cost rate at UC Santa Barbara is 51.5% of modified total direct costs, a number that does not include many items funded by a typical grant, such as equipment and graduate student fees. In addition, the F&A cost rate is applied only to the first \$25,000 of subcontracts, which generally undercompensates for the additional costs associated with managing those subcontracts, particularly for a multi-year contract. Taking these effects into account, the actual F&A generated from all grants on the UC Santa Barbara campus is about 23% of their combined direct costs, and therefore about 18% of the total grant award.

In principle, the state could provide support for the research base of the university in their annual appropriation. But as a matter of policy, California and other states do not provide such support. The state educational appropriation represents about 25% of the core university budget. (This appropriation dropped by about 28% in real terms from 2002 to 2005, which led to large tuition increases and budget cuts.) This appropriation is explicitly directed to the educational mission of the university. It provides research support indirectly, primarily through the research effort of faculty researchers, who are paid from university funds. But state funds are not intended to provide major support for the facilities and administrative functions associated with research.

5. The administration of F&A funds within the university

A faculty member's grant proposal specifically details only the direct cost elements of the research project. It is assumed that the necessary facilities, services, and infrastructure to make it possible for the investigator to conduct this research will be provided by the university. The sponsor's direct cost commitment to the faculty member must be supplemented by an F&A cost component in order to pay for that investigator's appropriate share of the institutional costs of supporting campus research.

The sponsors do not stipulate that the money be accounted separately so that its use can be tracked. For one thing, much of the F&A cost recovery is a reimbursement for funds already expended to support research. Renovation of laboratory space, or even construction of a new roof, might provide research facilities over a 30-year lifetime. Universities are not expected to track F&A cost recovery on the research function, since to do so would drive up administrative costs dramatically.

6. When does the University waive the charge for indirect costs?

The University waives the charge for indirect costs very rarely, and only under a few specific circumstances.

Program managers at funding agencies often try to enhance the size of the research program they manage by encouraging investigators and universities to waive or reduce appropriate F&A costs due the institution. The managers are operating under pressure to maximize their research portfolio under severe cost constraints. Whatever funds the agency has to pay out for F&A costs are clearly unavailable to award as direct costs, and a given program does better if it can ride for free on the infrastructure paid for by other programs.

If indirect costs were waived often, however, the university would be forced to cut the administrative staff who support research below the point of efficient operation and to allow the research offices and facilities to age without renewal. Moreover, each agency trusts the university to give it an equitable indirect cost rate so that it is not doing more than its share. Although each research project would benefit if it could make use of facilities and administrative personnel paid for by other projects, there is no justification for creating a class of projects that receive such special treatment.

In reality, the university does subsidize certain proposals for which the F&A cost rates are restricted by the agency sponsoring the research. This occurs most often for state-supported agencies and some non-profit foundations, for which separate agreements are reached for lower F&A rates. This failure of such sponsoring agencies to reimburse full F&A costs is a widely acknowledged problem afflicting all research universities in the US. For the state agencies, this practice emanates from the misunderstanding that the university's budget already includes support for these activities.

Because some agencies do not pay the standard F&A rate, and because the standard rate is well below the true cost of administering the research, the university must strive continually to reduce administrative costs. Much of this is done by increasing the efficiency of research support, but this strategy only goes so far. One result of the shortfall is a backlog of projects needed to maintain and upgrade the physical infrastructure for research at UCSB. Another result can be a delay in response time of administrative staff, especially during periods of peak activity. After years of budget cuts, UCSB is giving high priority to improving the research infrastructure and increasing the strength of the administrative support to the levels appropriate for the size and quality of the research program.

For most research done off-campus, the research facility is not provided by the campus. In these cases, the off-campus indirect cost rate is used, which covers administrative costs only. In a few cases, a lower F&A rate is officially negotiated for a grant because of special circumstances. Usually this occurs because some administrative personnel are funded directly on the grant, with the explicit approval of the agency, and the F&A rate is lowered to reflect the reduced level of administrative workload.

7. F&A cost rates at various research universities

**Table 1: F&A cost rates of 18 high-volume research universities:
(on-campus research percent rates, FY 2008)**

Harvard	71.0
MIT	67.0
Yale	65.0
Johns Hopkins	64.0
Cornell	59.0
Stanford	58.0
U Washington	56.0
U of Illinois	55.0
UCLA	54.5
UC San Diego	54.5
Chicago	53.5
UC Davis	52.0
UC Berkeley	52.0
UC Santa Barbara	51.5
U Maryland	50.0
UC Riverside	50.0
U Minnesota	49.5
U Wisconsin	47.0

Table 1 compares the F&A cost rates at 15 major research universities in FY 2008.

There are a number of factors that give rise to differences in F&A cost rates at different universities. UC's F&A cost recovery rate is similar to most public universities. Private universities tend to have higher rates, sometimes much higher. Federal laboratories and for-profit firms tend to have even higher rates. A 1996 study cited by the federal Office of Science and Technology Policy found that F&A costs at seven universities averaged 31 percent of total research costs, compared to 33 percent and 36 percent of total research costs at the federal laboratories and for-profit firms, respectively.

A major factor in these differences arises in the Buildings and Improvements cost pools. 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. Institutions that have used debt to finance the construction of research facilities will have higher interest costs in their direct cost rate.

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 equipment maintenance costs may generally be considered as F&A costs, while at others, they may be a direct charge to the grant. As a result, a given university may show higher direct costs and lower F&A costs than comparable costs at another university, 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. 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 among institutions that should be recognized by the government in the award of F&A costs. However, it can be argued that institutions which arbitrarily limit themselves to F&A cost rates below their actual costs are undermining research support on their own campuses while allowing granting agencies to underwrite disproportionately more services and newer facilities at competing institutions with relatively higher rates.

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

Table 2: Typical research grant subtotals

Summer salary - faculty (one summer month)	\$8,000
Post-doctoral scholar (12 months, 100%)	\$40,000
Graduate student researcher (12 months, 50%)	\$20,000
<hr/> Subtotal: Salaries	<hr/> \$68,000
Employee benefits	\$10,000
<hr/> Subtotal: salaries and benefits	<hr/> \$78,000
Supplies and services	\$3,600
Publications	\$1,500
Travel	\$1,500
<hr/> Subtotal: Modified total direct costs (MTDC)	<hr/> \$84,600
F&A (indirect) cost (51.5% of MTDC)	\$43,569
<hr/> Subtotal: MTDC plus F&A costs	<hr/> \$128,169
Equipment	\$5,410
Graduate tuition and fees	\$8,000
<hr/> Total Award	<hr/> \$141,579

Table 2 outlines the budget for a typical research project in the sciences. It assumes the current UCSB on-campus F&A cost rate of 51.5 percent, which results in the F&A cost being 31% of the total award. Salaries and benefits often constitute 70 percent or more of the project budget. The supplies and services component is often 10 percent or less of the total. These budgeted items are then added together to determine the Modified Total Direct Costs of the grant, a sum that 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 involves various items of equipment that might be needed to carry out the research but which are excluded from the MTDC calculation. If graduate students are supported, graduate tuition and fee remission is also excluded from the MTDC calculation. Although the chart represents a typical project, the character of projects varies enormously across the institution. Some grants can be as small as \$500 and some can be exceed \$5 million. Moreover, it is

clear that each grant will use different resources and therefore have a different F&A cost impact within the institution.

9. Why are F&A costs charged to all grants?

A proposal seeking funds for a fairly small project, and the subsequent award, may require as much administrative work to process as a grant with a million dollar budget. Since a number of F&A cost elements that support a grant represent fixed costs, it is sometimes argued that smaller projects should pay higher rates. Such a variable rate structure would be quite cumbersome to apply, and inconsistent with the government's Circular A-21 guidelines. Researchers in many disciplines receive smaller grants, and naturally wonder what their F&A costs are buying. Anyone receiving a summer research salary of \$5,000 would generate an additional 51.5 percent in federal funds, or \$2,650 for F&A costs. They don't need laboratory space and expensive equipment and feel that they should be assessed at a lower 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 and the cost of grant accounting and administration). Implicit in the accepted procedures for determining F&A costs is the notion of averaging. The federal government maintains the principle that a single F&A cost rate should be used for each institution's on-campus research (although there are special rates when they are appropriate). Every grant is different and places unique demands on the institution's resources. Virtually all grants recover less than actual costs, however, because of the negotiated rate is less than the actual average expenditure.

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 researcher 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 participants.

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

Given that the University does not recover all its F&A costs, (the effective rate is less than the actual costs), other University funds must be used to help pay for research-related activities. Although the F&A cost process identifies the costs incurred in supporting the research program 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 \$30,000 but it would not be practical to restrict expenditure of the \$30,000 solely to the F&A costs incurred by that specific grant in that particular year. Most of the facilities costs are associated with depreciating a capital asset that will eventually need renovation or replacement. In general, a much more macroscopic approach is called for when dealing with expenditures.

When the University develops its budget for a particular year, it starts with an estimate of the total revenues available for that year, including State funding, tuition, F&A cost reimbursement, interest and investment income, and so on. All these funding sources are combined to support the total budget identified in the University's policy-based and priority-driven budget process. 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, and many other costs cannot be accurately predicted. 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.

11. How are recovered F&A costs distributed in the UC system?

At the University of California, F&A cost recovery procedures differ according to the source of funding. A different set of policies governs F&A cost recovery from each of three distinct sources – the federal government, state government, and private sources (including businesses, foundations and charities). UC policies that govern F&A cost recovery are the result of negotiations over many years among the campuses, UCOP, state government and the federal government. The policies have been altered over the years in response to changes in OMB Circular A-21, requests from campus administrators, and demands from the state legislature. Accordingly UC's F&A cost policy has grown more complicated over time, and correspondingly more difficult to understand.

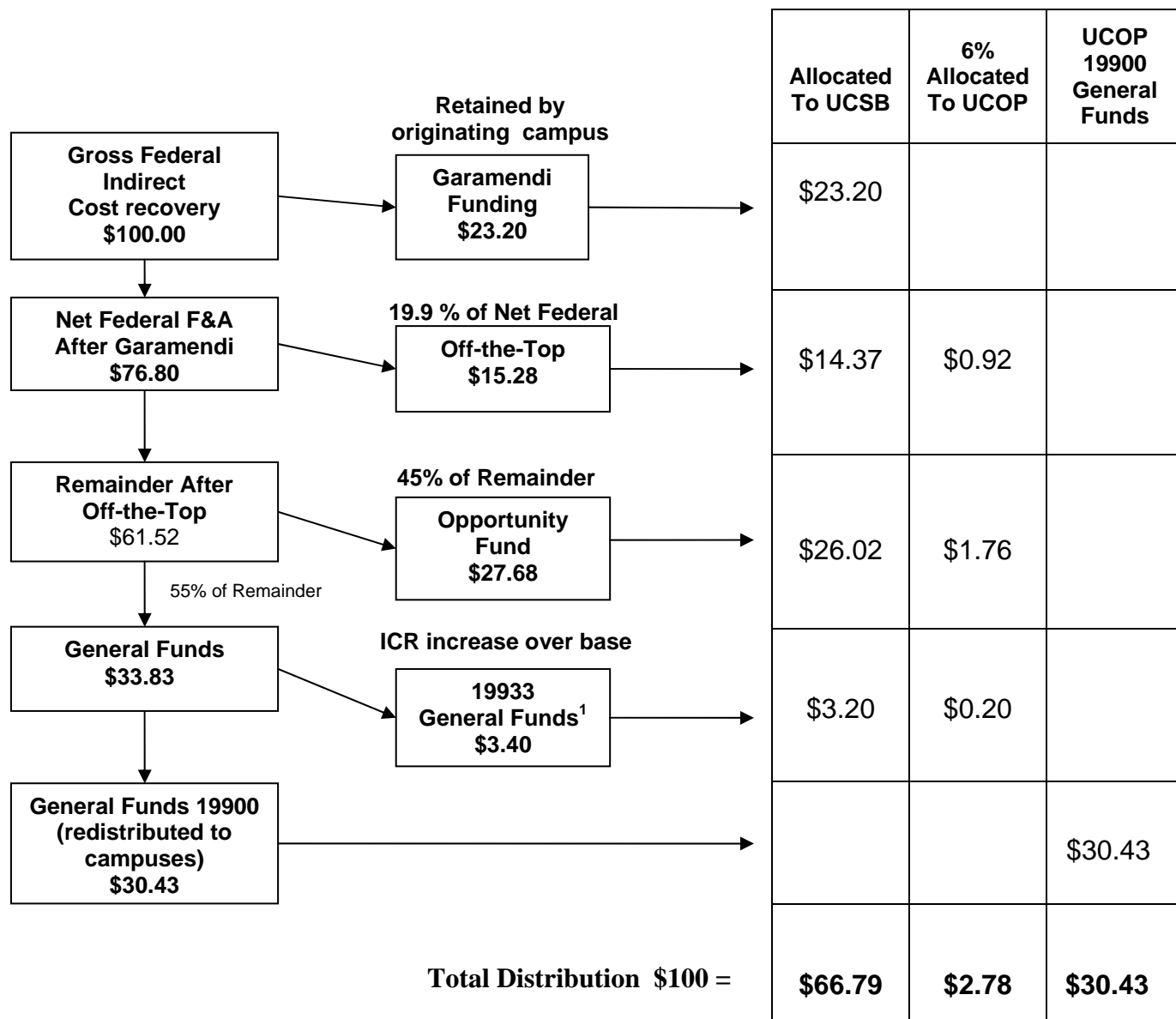
Distribution of Federal Recovered F&A Costs by UC:

All F&A costs recovered by the UCSB campus are transferred to the Office of the President to be returned to the campus in a prescribed formula in the following year. By agreement with the State, the Office of the President allocates federal F&A recovery as follows:

- Garamendi Funds – each campus retains 100% of the reimbursement received for “Garamendi” funded research buildings to finance and maintain the building.
- Off-the-Top Fund – After Garamendi, 19.9% of the remaining funds are taken off the top to cover the costs of administering the research program. The UCOP takes 6% of this money for funding federal contracts and grants costs at UCOP.
- The remaining 80.1% is divided between the UC General Fund (55%), which is used by the UCOP to help support the operating budget of all campuses including general funds in support of research, and the Opportunity Fund (45%), which is returned to the UCSB campus to fund high priority needs at the Chancellor's discretion. The UCOP takes 6% of the Opportunity Fund for funding UCOP and systemwide programs

UC General Funds are combined with state general funds and are classified as fund number 19900. Beginning in 2000-01, any F&A cost recovery over the base year of 2000-2001 is designated by fund number 19933. 94% of these 19933 funds are returned to the originating campus.

Table 3. How \$100 of Federal F&A Recovery generated by UC Santa Barbara is distributed



¹UCSB Federal F&A Base Year FY01 = \$7,131,155 (based on FY 1999-2000 data).

Explanation of terms in Table 3:

Garamendi funds: In 1990, legislation authored by then State Senator John Garamendi authorized the use of F&A cost reimbursements for the acquisition, construction, renovation, equipping, and maintenance of certain research facilities, related infrastructure, and financing of these projects. Under the provisions of the legislation, the University is authorized to use up to 100 % of the F&A cost recovery that results from new research, conducted in or as a result of the new facility, to finance and maintain the facility. Each campus retains 100 % of

the reimbursement received for projects that meet the conditions of this legislation. This funding is not a fixed proportion of the F&A cost recovery. It varies from year to year, and from campus to campus, depending upon the number of projects being funded. Under this legislation the UC campuses can issue, with state approval, “Garamendi bonds” for construction and maintenance of research facilities. The campuses can then use F&A cost recovery as a dedicated revenue source to repay interest and principal on the bonds. This funding mechanism allows the campuses greater flexibility in conceiving, designing and funding research-related capital projects.

UCSB has a larger fraction of its ICR funds dedicated to paying off Garamendi bonds than any other campus within the University of California. Whereas 9% of the gross ICR goes is applied to Garamendi bonds across the UC, that number is 23% at UCSB.

Off-the-Top Overhead Fund – After Garamendi, 19.9 % of the remaining funds are taken off the top of the F&A cost reimbursement for expenses related to the administration of federal contract and grant activity, and for costs disallowed by the federal government. Of the 19.9%, UC Office of the President takes 6% of this money for funding federal contracts and grants costs at UCOP; the remaining 94 % is distributed to the campuses on the basis of the amount generated.

University Opportunity Fund – After Garamendi and the off-the-top fund, 45 % of the remaining balance (which is equivalent to 36 % of the total) is designated for the University Opportunity Fund. The Opportunity Funds are directed to the campuses on the basis of how much F&A cost recovery each campus generates. Chancellors have discretion as to the allocation of these funds on each campus. The UC Office of the President takes 6% of this money for funding UCOP and systemwide programs.

University General Fund Income – After Garamendi and the off-the-top fund are taken off, the final 55 % of federal F&A cost recovery (which is equivalent to 44 % of the total) is combined with other funds, collectively called University General Fund Income (UC General Funds), and is used to support the university’s budget needs. Other sources of university general funds include nonresident tuition, student application fees, F&A cost recovery on state agency agreements, portions of net patent income, and a portion of the DOE Lab management fee. Up until FY2000, the F&A cost recovery funds were combined with state general funds and classified as fund number 19900 general funds. The F&A cost recovery component of the state general fund, thus, was not tracked separately, and any distinction between F&A cost and other sources of general funds was completely lost. After FY2000, a unique fund number, 19933, was created to track the F&A cost recovery component of the general fund. FY2000 was established as the base year: all F&A cost recovery up to the FY2000 amount is still “thrown into the pot” and designated as 19900 general fund money. However, the amount of F&A cost recovery over and above this base amount is now designated by fund number 19933 and 94% of it (after an adjustment for inflation) is returned to the originating campus. The Office of the President retains six percent of the 19933 funding.

The net F&A funds available to allocation for administration of research on campus depends on the total federal research awards and the amount removed off-the-top. For comparison, table 4 shows the net federal F&A funds in 2005-6 by campus. This corresponds to the description “Net F&A after Garamendi” in Table 3. The funds available at UCSB from this source correspond to about 18% that at UCSD, for example, and about 35% that at UCD.

Table 4. Net Federal F&A funds returned to UC campuses in 2005-6 (\$ millions)

Campus	UCSB	UCB	UCD	UCI	UCLA	UCR	UCSD	UCSF	UCSC
Net ICR	18	59	51	42	119	12	102	111	13

Distribution of recovered state F&A costs by UC: F&A cost recovery from state research contract and grants is considered 19900 general funds. Again, the distinction between this revenue and any other 19900 state revenue is lost once it is designated as state general funds, and no effort is made to return the money to the generating campuses in proportion to how it was earned. Proposals have been discussed to identify the F&A cost recovery on state awards in the general fund, and to return a portion of the recovery to the originating campuses. To date, none of these proposals have been enacted.

Distribution of recovered F&A costs from private gifts and grants and local government: UC recovers F&A costs from private businesses and business groups, foundations and charities. This money includes F&A cost recovery from clinical trials at the medical schools. All of this clinical trial income is retained by the originating campus. The remaining money is combined with income from the Short Term Investment Pool (STIP) and becomes the *Educational Fund*. The Regents established this fund in 1964. It is designated to be used for the special needs of the university's educational programs. UCOP uses the Education Fund for university wide programs like the National Partnership in Advanced Computational Infrastructure (NPACI) the Industry University Cooperative Research Program/Discovery Program, and the reserve for development activities and capital outlay projects allocation. A small portion of the Education Fund is distributed as needed to the campuses for development and other purposes. Most of the F&A cost recovery that is generated in the Education Fund over an inflation-adjusted level retained by UCOP is returned to the originating campuses in proportion to how it was earned. In FY04, the total such F&A received by the UCSB campus was \$2.48M of which \$0.64M was retained for system-wide programs and \$1.84M (75%) was allocated to the campus.

12. For those interested: details about how the F&A cost rate is calculated

A formalized process developed by the Federal government (consistent with generally accepted accounting principles and presented in OMB 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 formal cost pools defined by Circular A-21: buildings and improvements, interest, equipment, operations and maintenance, library, general administration, departmental administration, sponsored projects administration and student services administration. 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. Finally a rate is negotiated with the cognizant federal agency (DHHS for UCSB) that is substantially less than the actual calculated. Table 5 illustrates the components of UC Santa Barbara's negotiated F&A cost rate.

Table 5. UC Santa Barbara Sponsored Research Rate Components

July 1, 2007 through June 30, 2008

% of Direct Costs

	<u>On-campus</u>	<u>Off-campus</u>
<u>Facilities</u>		
Building Depreciation	6.4	
Building Interest	5.4	
Equipment	3.4	
Operation & Maintenance	8.7	
Libraries	1.6	
Facilities Total	25.5	
<u>Administration</u>		
General Administration	5.7	5.7
Departmental Administration	16.7	16.7
Sponsored Program Admin	3.0	3.0
Student Services Admin	0.6	0.6
Administration Total	26.0	26.0
Total Rate	51.5	26.0

OMB 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 a previous year's activity. The cost pools are classified within two broad categories, Facilities and Administration, with the F&A costs for the latter category capped unilaterally by the government at 26 percent.

Facilities:

- *The Depreciation cost pool* is calculated year by year on a straight-line basis. Based on an extensive "space utilization study" carried out by the University, an estimate is made of the fraction of building use which can be attributed to the research effort, and the depreciation of this component is calculated. The building cost pool also allows for the cost of land improvements such as sidewalks, exterior lighting, and landscaping.
- *The Interest cost pool* includes interest on debt associated with research-related 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 research-related equipment not purchased with federal funds. 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.
- *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 sponsored activities.

- *The Library cost pool* recovers centralized library costs including branch 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.

Administration:

- *The General Administration cost pool* includes expenses for general executive and administrative offices, which provide services to all activities of the University. This category includes personnel, payroll, purchasing services, financial management, and a variety of other central administrative functions. 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 is limited to a fixed allowance of 3.6 percent of modified total direct costs (MTDC) for the administrative effort of faculty and other professional personnel. These fixed allowances are less than actual costs for all research universities. 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, telephone, and other services which are paid from general operating budgets.
- *The Sponsored Projects Administration cost pool* recovers the cost of organizational units established primarily to administer and support the research or training effort regardless of the funding source. This includes contracts and grants offices and extramural funds management.
- *The Student Services Administration cost pool* provides for student services. This includes a portion of the costs of graduate student counseling, health services, the admissions office and similar activities. However, current practice at UCSB allocates all of student services administration costs to instruction.

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 Table 2. 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. 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 the Western Region (in San Francisco) make their own evaluation of the materials submitted and seek to negotiate downward some of the costs included in the pools. As shown in Table 2, The TFAC 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.

Table 6. The F&A (indirect) cost rate formula

Proposed F&A cost rate =	$\frac{\text{TFAC}}{\text{MTDC}}$
TFAC = Total F&A (indirect) Costs	Total amount of the specific F&A cost pools assigned to organized and sponsored research
MTDC Modified Total Direct Costs :	Directs salaries and wages plus all other direct costs minus the following: Equipment, renovation costs, patient care off-campus building stipends, rental, training tuition remission, and the portion of each subcontract in excess of \$25,000.

*Note: Prior to FY82-83, a single F&A cost recovery rate was calculated for research at all UC campuses. Starting in FY82-83, a separate rate was negotiated for each campus. The campus rate applies for all awards unless an exception has been approved. On a given campus, the rate applies regardless of the size of the grant or the department of the principal investigator.

It is significant that subawards to other institutions do not generate F&A on amounts in excess of \$25,000. UCSB receives a number of large multi-institutional grants with subawards to other institutions. Indeed, several federal agencies have realized that they could reduce their administrative costs by distributing more of their funds through multi-institutional grants, effectively contracting with a university to take on additional administrative work. Since subawards do generate considerable workload for the Sponsored Projects Office and for administrative units, this campus cost is undercompensated significantly by the current F&A rate formula.

For most individual research projects, MTDC represents simply the direct costs less any equipment costs. The threshold cost for equipment was raised to \$5000 on July 1st, 2006 for all sponsored awards. Thus F&A costs are now claimed on "equipment" purchased for less than \$5000.

Table 7 shows the variety of activities that are allowable components for calculating the University's overall F&A cost rate. At a university, many research-related costs must also be charged to F&A costs. 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 a substantial fraction of them.

The library is a good example of a major resource necessary for research that is not widely 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.

Table 7. Representative resources allowed as F&A costs

Advertising costs (for personnel)	Grant and contract services
Affirmative action monitoring	Human subjects review
Animal care review	Library services
Bond interest	Maintenance/operations
Building depreciation	Payroll office
Central administration	Personnel office
College administration	Purchasing office
Communications costs	Risk management
Computer facilities and services	Security (campus police)
Custodial services	Selected publications
Departmental administration	Selected subscriptions
Environmental health and safety	Seminar costs
General accounting	Transportation costs
Grant and contract accounting	Utilities

The increasing number and complexity of requirements imposed by the federal government to ensure compliance with various regulations also contribute to F&A costs. They require the University to institute new or expanded monitoring activities, to submit certifications, and, in general, to handle a great deal more paperwork with each new mandate. Most recently the requirements of the Patriot Act and other regulatory and documentation requirements have created a sharp increase in workload and university costs. Most of these costs are in capped administrative pools. Since F&A cost recovery has not kept pace with these new requirements, they are in effect unfunded mandates.

Much of the public discussion of F&A costs in the early 90's focused on the 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. After the mid 90's, it was no longer a question of whether an expenditure had been allowed by Circular A-21, but whether it is 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, including UCSB, 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. Table 8 provides the redefined list of "unallowables" – i.e. costs that cannot be included in the calculation of the F&A cost rate.

Table 8. Representative "unallowable items" for calculating overall F&A cost rate

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 indeed been excluded in the calculation of their F&A cost rate. The difficulty in identifying these unallowable costs can best be illustrated by the following example: Although a university rigorously excludes all costs associated with centralized fund-raising by eliminating all fund-raising expenditures in accounts included in F&A cost pools, similar costs in departments, schools and colleges are commingled and can not be identified readily and specifically as fund raising. The university must rely on careful identification of fund-raising costs by administrative staff in academic units for exclusion from the Departmental Administration cost pool for the purposes of calculating and negotiating the campus F&A cost rate.