Indirect Costs at Berkeley: A Primer

A Research Support Policy Committee appointed by Executive Vice Chancellor Paul Gray in 2002 has reviewed current Berkeley campus indirect cost policies, examined the actual costs of research administration, and proposed a new policy designed to insure that research support is appropriately coupled to levels of research activity in campus units. As background to clarify the implications of the proposed policy, the committee provides in this primer a detailed explanation of how indirect costs are defined, how indirect cost rate is calculated, how recovered indirect costs are distributed by the UC system and, on the UCB campus, and what the UCB campus spends on research from all sources.

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I. An Introduction To Indirect Costs
(Facilities and Administrative Costs)

This background material is intended to provide a common understanding of indirect cost policy to faculty and staff at UCB. In preparation of this document we have drawn extensively (with permission) upon 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. For clarity we have used a similar format of frequently asked questions.

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.

II. Frequently Asked Questions About Indirect Costs

1. What, specifically, is the distinction between direct and indirect costs?

A restaurant provides an illustrative example of the difference between direct and indirect costs: restaurants establish their prices to customers by first calculating their direct costs for producing or purchasing the food they serve. Next they calculate their indirect costs such as rent, utilities and accounting services – and then they charge their customers a mark-up on direct costs to cover these indirect costs. If businesses did not add the mark-up into the price of their products, they would not make enough to pay the rent, utility bills, or their accountant's wages, and would go out of business.

A research university must operate on similar basic principles. The university must charge a mark-up on direct research costs in order to pay for indirect research costs. This mark up is called the indirect or facilities and administration (F&A) cost rate. Otherwise the institution could not afford to support the research of its faculty.

OMB Circular A-21 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 probably cost more than the electricity itself.

Attributing an appropriate indirect 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 indirect costs for research space.

2. What is the history of the indirect cost concept and the role of Circular A-21?

Today, federally funded research is a fact of life at all major American research universities. 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 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 research.

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 the costs to the institution of supporting this research (now designated indirect or F&A costs) was addressed. It became apparent that university-based research infrastructure could expand and successfully support more research only if the indirect costs incurred in connection with these Navy contracts (beyond the obvious direct costs of research) were reimbursed. ONR thus formally acknowledged the legitimacy of establishing differential indirect cost elements. Despite ONR's formal acknowledgment of these indirect cost principles, the practice initially was to provide a flat-rate reimbursement for indirect costs.

After World War II, discussions of indirect cost rates continued between the universities and the federal government. In 1958, a formal and extensive set of guidelines for determining indirect 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 indirect costs, but restricted recovery of indirect costs by setting an upper limit of 8%. Today this is still the mandatory rate for most National Institutes of Health (NIH) training grants. In 1958, the general rate for NIH was fixed by law at 15 %, then raised to 20 % in 1963. In 1966, the government removed the indirect cost ceiling and established the policy that *universities should be fully reimbursed for the indirect costs incurred in conducting federally funded research projects*. However, in 1991, a change to 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.

Recent studies by Rand Corporation and by the Council on Government Relations have found that *the actual indirect costs of supporting research at research universities substantially exceeds that reimbursed by A-21 policies*, due primarily to the application of caps on administrative costs at levels below that of expenses actually incurred. Thus all research universities, including UCB, are subsidizing research from sources other than indirect cost reimbursement by sponsors.

3. Why are indirect costs critical to the University's ability to support research?

It is common for faculty members to feel that when they successfully compete for a grant, the indirect cost component of that grant is like a gift or boon that they are bringing to the University and thereby donating to the institution. From the institution's point of view, the faculty member's grant proposal specifically addresses only the direct cost elements of that research program, while the actual costs of providing the necessary facilities, services, and infrastructure to make it possible for the PI to conduct this research must be provided by the university, and thus need to be reimbursed by the indirect costs paid by the federal agency or other sponsor. Thus the sponsor's direct cost commitment to the faculty member must be supplemented by an indirect cost component in order to pay for that investigator's appropriate share of the institutional costs of supporting campus research.

An illustrative analogy at UC is the reimbursement of expenses for business use of a faculty member's personal automobile. If a faculty member uses her personal vehicle for UC business, she can file a form and be reimbursed for the indirect costs associated with the use of her car. This reimbursement presupposes that the faculty member is maintaining her car at her own expense and the charge rate estimates the expected overhead for this specific use. The university makes no demands as to how the faculty member should spend the actual reimbursement. The faculty member does not have to set aside the money in a separate fund that can be used only for auto-related expenses. It is assumed that she is maintaining the car at her own expense, so she is free to spend the reimbursement as she wishes.

Likewise, when the federal government or any other sponsor reimburses the university for the indirect costs of the research they are sponsoring, the sponsors are recognizing that certain costs are incurred by the university in providing the facilities, infrastructure and services necessary for the PI to conduct the research. The sponsors do not stipulate that the money must be spent on research or any other particular university function. The indirect cost recovery is a reimbursement for funds already expended to support research. Universities are under no obligation to spend indirect cost recovery on the research function, although they typically do spend the bulk of overhead funds on research-related items.

The formal rate of reimbursement of indirect costs is negotiated between the institution and the sponsor, on the basis of detailed principles outlined in Circular A-21. From the sponsor's and the institution's point of view, the indirect cost component is distinct from the direct cost award, and it aspires simply to reimburse the institution for the real cost to the University of a specific research project. Thus, from the perspective of the university administration, indirect cost recovery is a reimbursement—a reimbursement for expenses already incurred in support of research.

These contrasting perceptions can be cause for misunderstanding. From the faculty member's perspective, he or she is contributing significant indirect cost dollars to the University, whereas from

the administration's perspective, the University is simply being appropriately reimbursed for the added indirect costs generated by the execution of the research project. This opportunity for misunderstanding is significantly enhanced by the tendency of faculty to underestimate the nature and actual costs of essential support services and to overestimate the actual indirect cost recovery generated by their research grants. For example, since the negotiated indirect cost rate at Berkeley is 52%, many faculty believe that their grants are actually bringing in to the university 52% of their direct costs. In fact, that 52% is applied to Modified Total Direct Costs which excludes many items such as equipment, student stipends, and subcontracts over $25,000 (explained in detail below). Thus the actual overhead generated from all grants on the Berkeley campus is < 30% of their combined direct costs. As several recent studies have shown, the recovered indirect costs do not fully cover the actual indirect costs of supporting the research in any research university, including Berkeley.

This complex situation is made even more confusing by the tendency of many funding agencies to try to enhance the level of direct costs they can disburse by pressuring investigators and universities to waive or reduce appropriate indirect costs due the institution. When a federal agency receives its appropriation from Congress, there is usually no distinction between direct and indirect costs. The agency merely receives a total budget to carry out its program. Whatever funds the agency has to pay out for indirect costs are clearly unavailable to award as direct costs. Thus, a fundamental tradeoff is made at the agency level between direct and indirect costs. This tradeoff is thus an issue of legitimate concern to faculty considering the long-term funding prospects for their disciplines. Some faculty are, therefore, persuaded that reducing the indirect costs paid to the university would make more direct cost money available for their research programs. That tactic might work in the short term, if the "savings" were used to help fund a larger number of grants, or grants in larger amounts, as opposed to being shifted to other government programs. However, in the longer term, if the University continues to lose revenue in this way, it will be forced to cut services and staff, inadequately maintain research space, and trim other research support expenses, so that any initial advantage is likely to be eventually outweighed by the consequent compromise of the quality of research support at the University.

In reality, the University subsidizes many proposals for which the indirect cost rates are arbitrarily restricted by the federal, state, or other agency sponsoring the research. In light of this, the University must strive continually to reduce administrative costs by enhancing the efficiency of research support and this strategy cannot suffice indefinitely – at some point the effectiveness of research support declines. This failure of sponsoring agencies to reimburse full indirect costs is a acknowledged and growing problem afflicting all research universities in the US.

4. How is the indirect 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 indirect cost rate for sponsored research. First, all indirect 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. Table 1. illustrates the components of Berkeley's most recently negotiated indirect cost rate:

Table 1. Berkeley Sponsored Research Rate Components

July 1, 2003 through June 30, 2006	*% of Direct Costs* On-campus	*% of Direct Costs* Off-campus
Facilities		
Building Depreciation	6.7	
Building Interest	2.6	
Equipment	4.0	
Operation & Maintenance	11.2	
Libraries	1.5	
Facilities Total	26.0	
Administration		
General Administration	5.3	5.3
Departmental Administration	18.1	18.1
Deans' & Department Offices	14.5	14.5
Faculty Administrative Allowance	3.6	3.6
Sponsored Projects Administration	2.6	2.6
Administration Total	26.0	26.0
Total Rate	**52.0**	**26.0**

5. How does Circular A-21 define the indirect cost components?

Circular A-21 spells out in considerable detail the data that must be collected for calculating the indirect cost rate. The financial basis for the indirect 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 indirect costs for the latter category capped 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, 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 indirect 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. In addition, expenses in the offices of the Chancellor, the Executive Vice Chancellor & Provost, and the Vice Chancellor for Research 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 which 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 Berkeley allocates all of all student services administration costs to instruction.

Once all indirect costs attributable to research are identified and calculated for a fiscal year, the sum becomes the numerator in the indirect 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 indirect cost rate. A component rate is calculated for each of the nine cost pools. Once the indirect 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 indirect 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 indirect cost rate and charging indirect costs to individual grants.

Table 2: The F&A (indirect) cost rate formula

Proposed F&A cost rate =	TFAC / 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 rental, training stipends, tuition, and the portion of each subcontract in excess of $25,000.

*Note: Prior to FY82-83, a single indirect 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 for Berkeley that subawards to other institutions do not generate overhead on amounts in excess of $25,000. Berkeley faculty are often successful in obtaining large multi-institutional grants with subawards to other institutions, subawards comprising nearly 20% of Berkeley's sponsored research expenditures. Since subawards do generate considerable workload for Sponsored Projects and for administrative units, this campus cost is not recognized by the current overhead rate formula. However, for most individual research projects, MTDC represents simply the direct costs less any equipment costs. The threshold cost for equipment was raised from $500 to $1,500 in FY1997 to keep pace with rising equipment costs; in FY2007 the threshold will be raised to $5000 for indirect cost calculations. Thus indirect costs are now claimed on "equipment" purchased for less than $1500; after July 2006, indirect costs will be charged on items purchased for less than $5000. Equipment purchased for over $1500 is treated as a capital good and must be inventoried and depreciated.

6. What do indirect cost charges to grants actually reimburse the university for?

Table 3 shows the variety of activities that are allowable components for calculating the University's overall indirect cost rate. At a university, many research-related costs must also be charged to indirect costs. While central administrative expenses may be the component of indirect 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 but often taken for granted and not recognized as a component of indirect 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 indirect cost reimbursements to cover a portion of the costs of the University's library system.

Table 3: 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 indirect costs. Table 4 lists new or revised federal regulations that have come into effect just since 1988. 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 associated post 9/11 regulatory and documentation requirements have created another sharp increase in workload and university costs. Most of these costs are in capped administrative pools. Since indirect cost recovery has not kept pace with these new requirements, they are in effect unfunded mandates.

Table 4: Federal Rules/Regulations since 1988 affecting work load and costs of research support

Americans with disabilities act (1990)	Hazardous waste disposal (1988/90)
Anti-kickback act (1988)	Heath Insurance Portability and Accountability Act (2002)
Anti-lobbying rules (1990/92/95)	Human subjects training for NIH PIs (2000)
Certifying accuracy of indirect costs (1991)	Medical and infectious waste (1988/90)
Circular A-21 revisions (1991/93/96/98)	Misconduct in science (1989)
Circular A-110 revisions (1993/97)	Non-delinquency of federal debt (1989)
Circular A-133 revision (1997)	NEA clause on obscenity (1990)
Clean air standards (1988/90)	PHS policy on instruction in responsible conduct of research (2000)
Clean water standards (1988/90)	Procurement integrity (1990)
Conflict of interest (1995)	Radioactive waste disposal (1988/90)
Cost accounting standards (1995)	Right-to-know laws (1988/90)
Debarment and suspension (1989)	Select Agent Regulations (2002)
Drug free workplace (1989)	Small business subcontracting plan (1990)
Drug free workforce (1989)	Y2K requirements (1999)
Drug free schools and campuses act (1990)	

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

Much of the public discussion of indirect 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

Berkeley, 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 5 provides the redefined list of "unallowables" – i.e. costs that cannot be included in the calculation of the indirect cost rate.

Table 5. Representative "Unallowables" for calculating overall indirect 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 indirect cost pools to research, and the University must certify that they have indeed been excluded in the calculation of their indirect 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 indirect 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 indirect cost rate.

8. Why do indirect cost rates vary so much between universities?

Table 6: Indirect cost rates of 15 high-volume research universities: (on-campus research percent rates, FY 2000

Johns Hopkins	64.0
Harvard	64.0
MIT	63.5
Stanford	56.4
U of Illinois	53.0
UCLA	53.0
U Michigan	52.0
U Washington	52.0
U Arizona	51.5
UC San Diego	51.5
UC Berkeley	50.4
U Utah	49.5
UC San Francisco	47.5
UNC Chapel Hill	44.5
U Wisconsin	44.0

Table 6 compares the indirect cost rates at 15 major research universities in FY 2000. There are a number of factors that give rise to differences in indirect cost rates at different universities. UC's indirect 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 indirect 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 indirect costs and how they are defined. For example, at some universities equipment maintenance costs may generally be considered as indirect 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 indirect 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 indirect costs. However, it can be argued that institutions which arbitrarily limit themselves to indirect 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.

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

Table 7: Percentage comparison of F&A cost components, FY2000

Institution	Cognizant agency	Bldgs Interest & Equip	Oper & Maint	Library	Total Facilities	Total Admin	FY2000 Rate
Johns Hopkins	HHS	17.3	19.7	2.0	39.0	25.0	64.0
MIT	ONR	15.2	21.9	4.4	41.4	22.1	63.5
USC	HHS	13.3	22.0	2.2	37.5	26.0	63.5
Stanford	ONR	13.0	13.2	4.2	30.4	26.0	56.4
UCLA	HHS	13.0	12.5	1.5	27.0	26.0	53.0
U Michigan	HHS	8.0	16.0	2.0	26.0	26.0	52.0
U Washington	HHS	12.0	12.5	1.5	26.0	26.0	52.0
U Arizona	HHS	12.6	11.9	2.0	26.5	25.0	51.5
U Chicago	HHS	7.0	16.0	2.0	25.0	26.0	51.0
UT Austin	HHS	10.0	16.5	1.0	27.5	22.5	50.0
U Minnesota	HHS	10.3	14.0	1.2	25.5	24.0	49.5
U Utah	HHS	9.0	11.5	1.5	22.0	26.0	48.0
UC San Francisco	HHS	8.7	11.1	1.7	21.5	26.0	47.5
UNC Chapel Hill	HHS	5.0	11.5	2.0	18.5	26.0	44.5
U Wisconsin	HHS	5.6	11.6	1.8	19.0	25.0	44.0
UC Berkeley	**HHS**	**9.9**	**13.0**	**1.5**	**24.4**	**26.0**	**50.4**

Clearly, values for some cost pools differ widely. For example, total facilities costs range from 18.5 percentage points at the University of North Carolina, Chapel Hill to 39 and 41 percentage points respectively at Johns Hopkins University and MIT. The data reveal that one of the main reasons for the difference is in the Buildings and Improvements, Interest, and Equipment cost pools. For these cost pools, North Carolina's rate is 5 percentage points compared to 17 for Johns Hopkins. The rate at North Carolina is low for several reasons. First, the University's research facilities are relatively older, which means the original costs for construction were lower. In addition, North Carolina utilizes a two percent use allowance instead of full depreciation. Given the low construction costs of older buildings, this two percent allowance does not generate much in the way of indirect costs for this pool (for institutions with old facilities, even two percent may be greater than depreciation). Most significantly, without debt financing for buildings, the University has no interest expense to include in this cost group. By contrast, Johns Hopkins has newer, debt-financed research buildings which are depreciated in the cost study. The Hopkins rate includes about eight percentage points for interest alone.

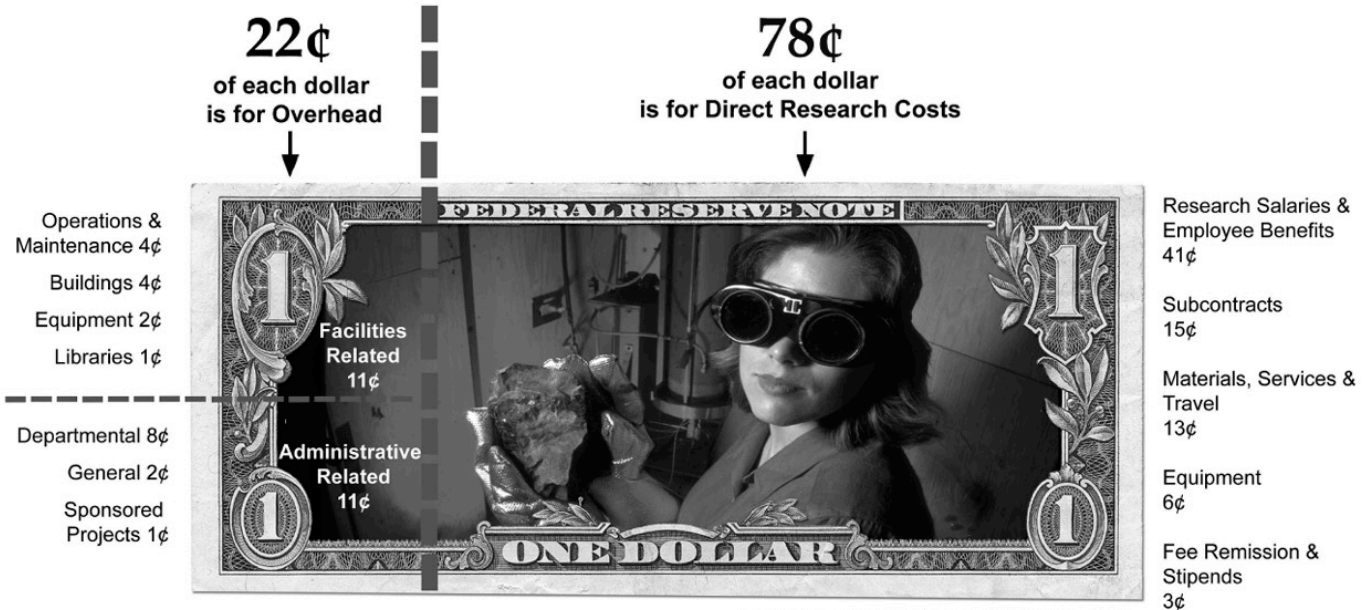
Prior to 1991, it was often argued that growing administrative costs were a major reason for substantial increases in indirect cost rates. While this argument had little validity before, it is now entirely without merit. The 1991 revisions to Circular A-21 placed a 26 percent cap on administrative costs (general administration, departmental administration, sponsored projects administration, and student services administration). Table 7 indicates that the current ranges are 22 percent to 26 percent, with 13 of the 15 research universities within a percent or two of 26 percent. Since 2000 most universities have exceeded the 26% cap.

The library column of Table 7 also shows substantial variation among universities. All but three universities received two percentage points or less, while MIT and Stanford each received more than four percentage points. Part of this difference can be attributed to Stanford and MIT's cognizant agency, the Office of Naval Research (ONR), which tends to allow higher reimbursement for the library cost pool. But part of this can also be attributed to economies of scale. At institutions such as Stanford and MIT, which have relatively smaller undergraduate populations but very large research programs, the majority of the costs of their extensive library holdings and library activity are attributed to the research enterprise. At the University of California, with large undergraduate enrollments (with the exception of UC San Francisco), there are economies of scale that makes the effective cost of sustaining the research portion of the library's activities somewhat lower.

Figures 1 and 2 below compare the distributional breakdowns of $ one federal grant dollar (includes both direct and indirect costs) at UCB and MIT. At Berkeley a substantially larger component of the federal dollars coming to the campus go to direct costs.

Figure 1

The Federal Research Dollar on the Berkeley Campus

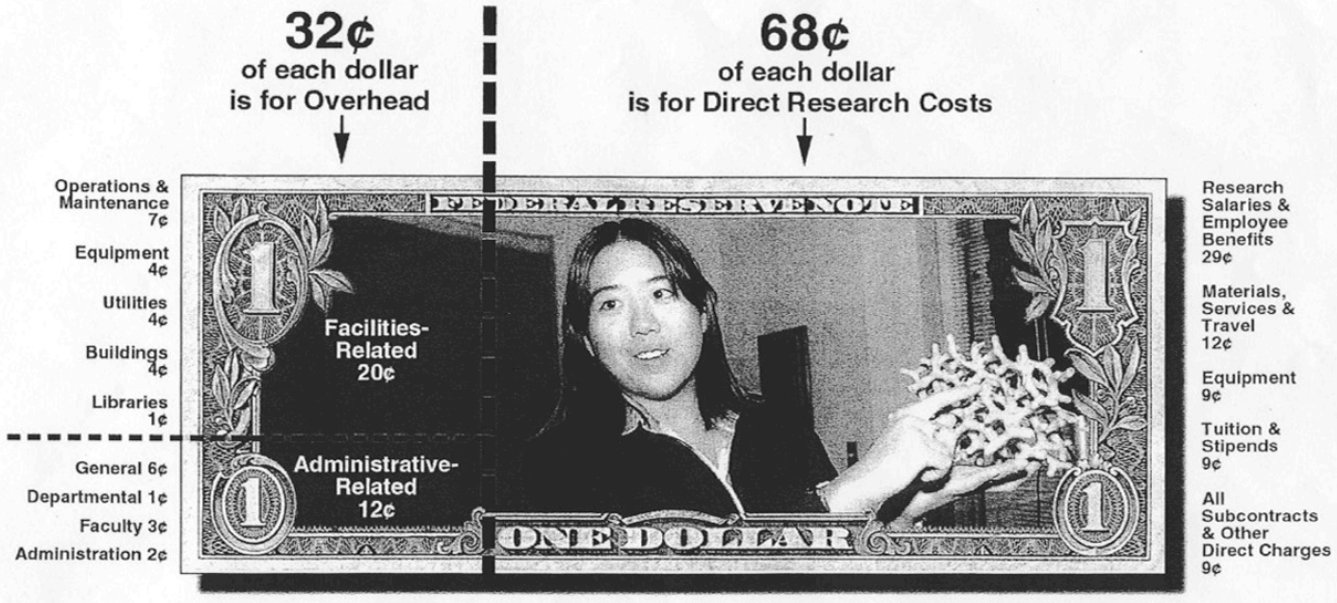


Source: Office of Financial & Managment Analysis, 2004

Image: Dawnika Blatter, Graduent Student of Geology and Physics, holds a piece of Mexican volcanic rock. She will put a sample of it into the "bomb", a furnance inside of a steel-encased container, which mimics the temperatures and pressures of deep earth magma chambers where rock melts into a molten mass. She hopes to determine how big a role water and carbon dioxide have played in the formation of lavas in Mexico.

Figure 2

The Federal Research Dollar on the MIT Campus



Source: *Office of Sponsored Research, FY99*
Chart: *MIT, July 2000*

Image: *Vanessa Chan, a recent PhD graduate in materials science and engineering, holds a model of the double gyroid, a structure she helped develop. Chan and other MIT researchers have shown how two materials can self-assemble into this unique shape. Subjecting the materials to a one-step, room-temperature oxidation process converts them into nanoporous or nanorelief ceramic films with a myriad of potential applications such as selective membranes, next-generation catalysts and photonic materials.*

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

Table 8: Typical research grant subtotals

Summer salary - faculty (one summer month)	$8,000
Post-doctoral research associate (12 months, 100%)	$40,000
Graduate student research assistant (12 months, 50%)	$20,000
Subtotal: Salaries	$68,000
Employee benefits	$10,000
Subtotal: salaries and benefits	$78,000
Supplies and services	$3,600
Publications	$1,500
Travel	$1,500
Subtotal: Modifed total direct costs (MTDC)	$84,600
F&A (indirect) cost (52% of MTDC)	$43,990
Subtotal: MTDC plus indirect costs	$128,590
Equipment	$3,410
Graduate operating fee (tuition and fees)	$8,000
Total Award	$140,000

Table 8 outlines the budget for a typical research project in the sciences. It assumes the current UC Berkeley on-campus indirect cost rate of 52 percent. 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 which forms the basis for calculating the grant's indirect costs. Multiplying the project's MTDC by the institution's indirect rate for that year yields the grant's indirect cost amount. The indirect 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 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 as large as $5 million or more. Moreover, it is clear that each grant will use different resources and therefore have a different indirect cost impact within the institution.

11. Why are indirect 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 indirect 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 the humanities typically receive smaller grants. They sometimes wonder what the indirect costs are paying for. Anyone receiving an NEH summer research salary of $5,000 in FY 2000 would generate an additional 52 percent in federal funds, or $2,600 for indirect costs. They may feel that they don't 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 and the cost of grant accounting and administration). Implicit in the accepted procedures for determining indirect costs is the notion of averaging. It has been a principle with the federal government that there should be a single indirect cost rate for each institution's on-campus research (although there are special rates when they are appropriate, such as the UC Berkeley Space Sciences Laboratory and the UC Davis Primate Center, where the federal government provided funds for the buildings they occupy). 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 net recovery of indirect 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. For example, under these average rates, an individual researcher has no incentive to save electricity by turning off lights in his laboratory, since his efforts to save resources will have no effect on his costs. This situation is similar to an apartment dweller in a large building where electrical costs are included in the rent. In both cases, the researcher and the apartment dweller suffer no penalty for being wasteful and gain no individual benefit for being frugal.

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 indirect 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. If one takes into account the broad range of variability over time and over various research activities, the averaging approach seems the best of more imperfect alternatives.

12. How are indirect cost reimbursements related to University expenditures?

Given that the University does not recover all its indirect 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 indirect 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 indirect cost payment of roughly $30,000 but it would not be practical to restrict expenditure of the $30,000 solely to the indirect costs incurred by that specific grant in that particular year. 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, indirect 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 indirect cost rate are real expenses that have been paid for by the institution from the total pool of available fund sources.

13. How are recovered indirect costs distributed in the UC system?

At the University of California, indirect cost recovery procedures differ according to the source of funding. A different set of policies governs indirect 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 indirect 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 indirect cost policy has grown more complicated over time, and correspondingly more difficult to understand.

Distribution of Federal Recovered Indirect Costs by UC: The procedures for distributing recovered indirect costs generated by federal grants is summarized in Table 9.

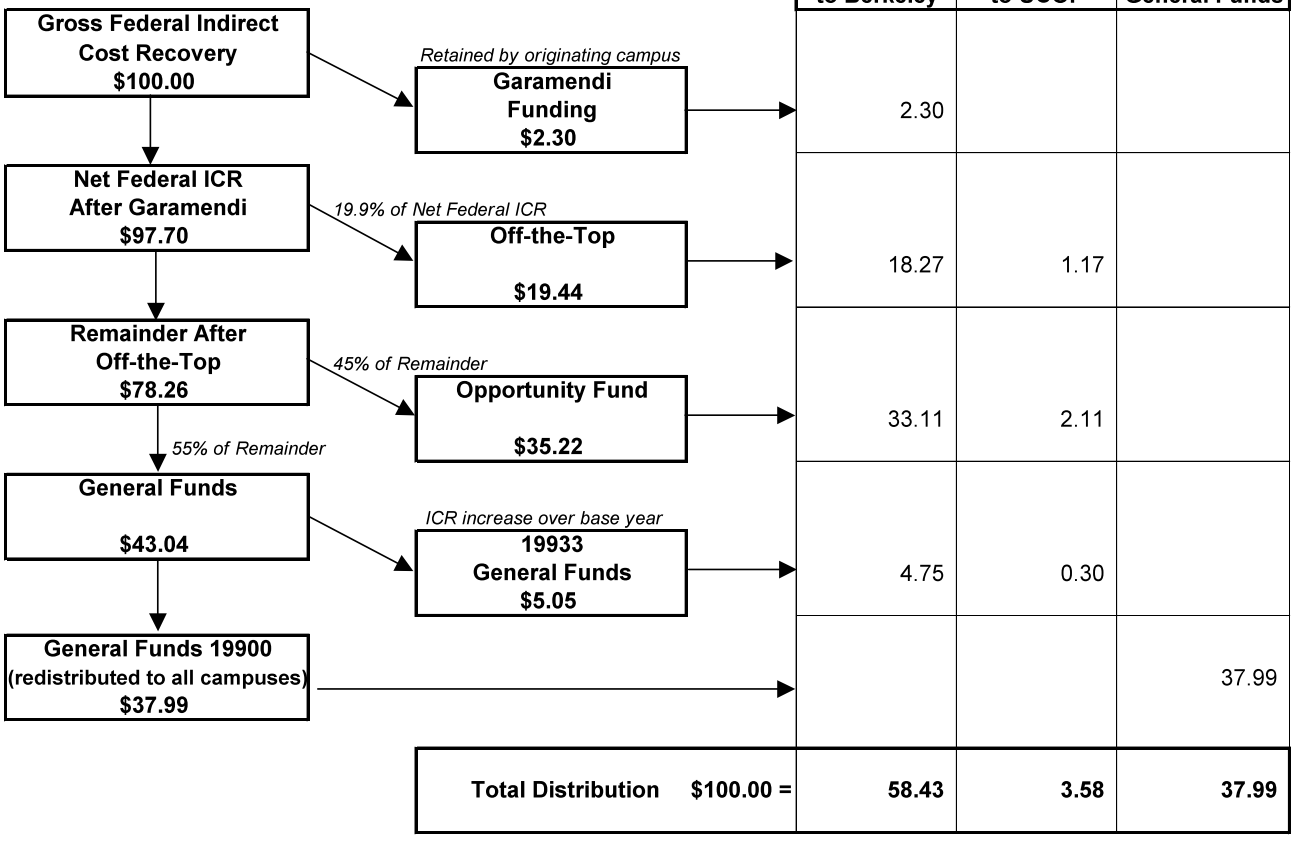
Table 9 UC Berkeley – Federal Indirect Cost Recovery 2002-03

All indirect costs recovered by the Berkeley 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 overhead recovery as follows:

- Garamendi Funds – each campus retains 100% of the reimbursement received for "Garamendi" funded research buildings to finance and maintain the building. For Berkeley, this amount is approximately 2.3% of indirect costs.
- 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 Berkeley 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 indirect cost recovery over the base year of 1999-2000 is designated by fund number 19933. 94% of these 19933 funds are returned to the originating campus.

The Distribution of $100 Federal Indirect Cost Recovery to UC Berkeley



	Allocated to Berkeley	6% Allocated to UCOP	(1) UCOP 19900 General Funds
Garamendi Funding $2.30	2.30		
Off-the-Top $19.44	18.27	1.17	
Opportunity Fund $35.22	33.11	2.11	
19933 General Funds $5.05	4.75	0.30	
General Funds 19900 (redistributed to all campuses) $37.99			37.99
Total Distribution $100.00 =	**58.43**	**3.58**	**37.99**

(1) Redistributed to all UC campuses by UCOP

Explanation of terms in Figure 9:

Garamendi funds: In 1990, legislation authored by then state Senator John Garamendi authorized the use of indirect 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 indirect cost recovery that results from new research, conducted in or as a result of the new facility, to finance and maintain the facility, including utilities. 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 indirect 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 indirect 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. The Berkeley campus has one Garamendi funded building, the Space Sciences Laboratory Silver Laboratory Addition.

Off-the-Top Overhead Fund – After Garamendi, 19.9 % of the remaining funds are taken off the top of the indirect cost reimbursement for expenses related to the administration of federal contract and grant activity, and for costs disallowed by the federal government. The 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 indirect 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 indirect cost recovery (which is equivalent to 44 % of the total after Garamendi) 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, indirect cost recovery on state agency agreements, portions of net patent income, and a portion of the DOE Lab management fee. Up until FY2000, the indirect cost recovery funds were combined with state general funds and classified as fund number 19900 general funds. The indirect cost recovery component of the state general fund, thus, was not tracked separately, and any distinction between indirect cost and other sources of general funds was completely lost. After FY2000, a unique fund number, 19933, was created to track the indirect cost recovery component of the general fund. FY2000 was established as the base year: all indirect cost recovery up to the FY2000 amount is still "thrown into the pot" and designated as 19900 general fund money. However, the amount of indirect 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.

Distribution of recovered state indirect costs by UC: Indirect 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 indirect 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 indirect costs from private gifts and grants and local government: UC recovers indirect costs from private businesses and business groups, foundations and charities. This money includes indirect 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 universitywide programs like the National Partnership in Advanced Computational Infrastructure (NPACI) the Industry University Cooperative Research Program/Bio STAR, and the reserve for development activities and capital outlay projects allocation. Most of the indirect 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. A small portion of the Education Fund is distributed as needed to the campuses for development and other purposes.

Table 10: BERKELEY- Overhead recovery and allocations

Overhead recovery generated

	1999-00	2000-01	2001-02	2002-03	2003-04
Gross federal overhead	45,215,608	47,395,161	51,802,603	54,376,344	61,607,955
Less: Garamendi funding	(940,595)	(1,133,942)	(1,206,065)	(1,190,951)	(1,315,074)
Net federal overhead	44,275,013	46,261,219	50,596,538	53,185,393	60,292,881
Total private overhead	11,306,000	11,792,000	13,162,631	13,993,082	13,537,000
Total State overhead	2,016,000	2,433,000	2,774,317	2,575,407	2,845,083
Total overhead recovery	58,537,608	61,620,161	67,739,551	70,944,833	77,990,038

Overhead fund allocations to campus*

	1999-00	2000-01	2001-02	2002-03	2003-04
Off-the-Top Fund allocation (.94 x .199 of fed ovh)	8,281,609	8,654,000	9,465,000	9,938,000	11,278,386
Opportunity Fund allocation (.94 x .36 of fed ovh)	15,001,391	15,674,065	17,143,065	18,000,065	20,428,615
Educational Fund block allocation	6,973,277	7,203,000	8,443,000	9,158,000	8,702,000
UC General Fund allocation (19933)	1,043,000	822,502	2,618,349	3,665,753	6,633,667
Total OTT, Oppy, UCGF, EdF allocations to Berkeley	31,299,277	32,353,567	37,669,414	40,761,818	47,042,668

*For OTT, Oppy and Ed Funds includes permanent allocations plus "true-up" allocations based on final overhead recovery

14. How are recovered indirect costs distributed at the UCB campus level?

Indirect cost recovery is a reimbursement for expenditures already made. Although OMB Circular A-21 contains strict rules on what type of costs can be reimbursed, it is silent about how the reimbursement must be spent. When the federal government or any other funder reimburses the university for indirect costs of doing research, the funders do not stipulate that the money must be spent on research or any other particular university function. Universities are under no obligation to spend indirect cost recovery on the research function, although they typically do spend the bulk of the money on research-related items.

Indirect cost recovery is less restricted in its uses than many other sources of campus funds, including 19900 general funds. Because of its unrestricted nature, indirect cost recovery is critical to financing capital projects (the building of new research facilities). The 19900 general funds are restricted to operating expenses, and can't be used to fund new buildings and other infrastructure. To efficiently allocate indirect cost recovery for capital projects, a large portion of these funds are allocated at a very high level – by the Chancellors or Executive Vice Chancellor – during the budget process. Since most capital projects are planned and budgeted at the level of Chancellors or Vice Chancellors, some of the "capital-friendly" indirect cost recovery must be allocated at that level. Some portion of indirect cost recovery is usually allocated to deans and departments for start-up funds, matching funds for new grants and other purposes. Different UC campuses have different policies governing how indirect cost recovery is distributed.

Table 11 shows how recovered indirect cost funds were spent on the Berkeley campus in the 2002-2003 academic year:

Table 11: Berkeley- Uses of Indirect Cost Recovery Funds*
Fiscal Year 2001-02

	Permanent	Temporary	Total
INSTRUCTION AND ACADEMIC SUPPORT			
Faculty Housing Program		1,000,000	1,000,000
Support to Academic Departments	703,937	83,570	787,507
Library	750,000		750,000
Employee Benefits	72,500		72,500
	1,526,437	1,083,570	2,610,007
RESEARCH SUPPORT			
Support to Organized Research Units	1,041,776	1,097,033	2,138,809
Academic Senate	876,874	200,000	1,076,874
Faculty Start-Up		1,075,000	1,075,000
Engineering ORU Budget Augmentation		1,000,000	1,000,000
NAGPRA Inventory		330,000	330,000
Sponsored Projects Office Augmentation		75,000	75,000
Employee Benefits	155,000		155,000
	2,073,650	3,777,033	5,850,683
STUDENT SUPPORT			
Graduate Fellowships		1,507,789	1,507,789
STUDENT SERVICES			
Various Student Services Programs in L&S and Student Affairs	560,026		560,026
Professional Development Program	362,810		362,810
Asst VP Undergrad Ed Operations	228,573		228,573
Athletic Study Center	102,862		102,862
Center for Educational Outreach	160,911		160,911
Employee Benefits	100,000		100,000
	1,515,182		1,515,182
PUBLIC SERVICE			
Lawrence Hall of Science	945,200		945,200
MAINTENANCE AND OPERATION OF PLANT			
Richmond Field Station Environmental Remediation		1,973,000	1,973,000
Campus Infrastructure Loan Repayments		(216,160)	(216,160)
Facilities Services Operations	171,103		171,103
Surge Projects		153,000	153,000
Employee Benefits	67,000		67,000
	171,103	1,909,840	2,080,943
INSTITUTIONAL SUPPORT			
IntraCampus Communication System (ICCS)		2,450,000	2,450,000
Central Computing Facility (SRB1)		2,272,000	2,272,000
Development Office	2,091,690		2,091,690
Accounting Services (Extramural Funds Acctg)	1,314,064		1,314,064
Berkeley Administrative Initiatives	1,286,495		1,286,495
Sponsored Projects Office	1,089,202		1,089,202
Network Communication Infrastructure		790,000	790,000
Audit and Advisory Services	778,705		778,705
Environment, Health and Safety	743,307		743,307
IDMS to DB2 Conversion		500,000	500,000
Graduate Division Dean	476,742		476,742
VC Research Office	474,606		474,606
Information Systems & Technology	461,964		461,964
Faculty Equity Office	380,608		380,608
Human Resources Office	369,889		369,889
CalNet		200,000	200,000
Business Resumption Planning		190,000	190,000
Workstation Support Services	161,559		161,559
Committee Protect Human Subjects	128,390		128,390
Financial & Management Analysis	113,840		113,840
Computing Operations & Info Systems	74,390		74,390
Controller's Office	40,149		40,149
BAS Budget & Financial Planning	28,277		28,277
Employee Benefits	615,300		615,300
	10,629,177	6,402,000	17,031,177
Total	16,860,749	14,680,232	31,540,981

*"Off-the-Top," Opportunity and Educational Funds derived from overhead recovery and income from investments.

15. What is the total annual expenditure for research by the UCB campus from all available sources (02-03)?

An detailed estimate of all research-related expenditures at UC Berkeley for the 2001-2002 year is provided in Table 12. The footnotes to the Table provide the rationale for how the indicated figures have been estimated. As reported for most research universities, the Berkeley campus spends substantially more of its resources for research than it receives each year in the form of indirect cost recovery.

Table 12: 03/12/04- Campus support for faculty research at Berkeley

FY 2001-02 Financial Data

Facilities and Administrative (Overhead) Costs [1]

	Total Allowable Campus Costs	*% Allocated to Research* [2]	*Costs Allocated to Research*
Facilities			
Building Bond Interest	14,771,636	27.9%	4,124,241
Equipment Purchases [3]	14,595,822	32.1%	4,685,259
Operation & Maintenance			
Campus Utilities (electricity, water, gas)	21,753,850	30.7%	6,680,607
PPCS Administration	2,469,971	24.5%	606,131
Building Maintenance	14,625,596	24.5%	3,589,121
Grounds Maintenance	2,155,998	24.5%	529,082
Janitorial Services	11,032,290	24.5%	2,707,324
Campus Police	8,752,258	20.2%	1,764,455
Facilities Planning (Capital Projects)	1,601,385	20.2%	322,839
Environment, Health, Safety	3,209,167	25.4%	813,524
Radiation Safety	675,024	60.7%	409,537
Hazardous Materials Management	1,170,591	57.8%	676,602
Department Paid O&M	6,596,175	9.4%	622,679
Chemistry Facilities	1,120,741	55.3%	619,321
Richmond Field Station Facilities and Utilities	2,133,483	54.2%	1,156,561
Libraries	37,207,699	5.9%	2,191,533
Subtotal facilities costs	143,871,686	21.9%	31,498,817
Administrative			
General Administration e.g., HR,	63,041,176	22.1%	13,925,796
Departmental Administration (deans,	71,372,878	37.6%	26,800,516
Sponsored Projects Administration, e.g.,	5,289,863	84.1%	4,449,833
Subtotal administrative costs	139,703,917	34.7%	45,176,144
Facilities and administrative costs	283,575,603	27.0%	76,674,961

University-funded research support expenditures

	Expenditures	
Committee on Research grants	2,002,912	[4]
Office of Laboratory Animal Care (campus funds, less recharges)	2,188,000	[5]
California Institutes for Science and Innovation		
CITRIS	304,812	[6]
QB3	208,631	[6]
Campus direct support expenditures	4,704,355	

Other campus research support commitments

	Commitments	
Chancellor's and EVCP's commitments for faculty recruitment, startup and retention *(Excluding salary enhancements)*	11,959,618	[7]
Vice Chancellor-Research grant matching commitments *(Half year allocation for year 1)*	500,000	[8]
Chancellor's overhead distribution to units, awards to major overhead generators	2,505,193	[9]
Campus research support commitments	14,964,811	

Major capital commitments from Chancellor's discretionary funds [10]

	Commitments
Barker Hall	2,632,000
Hearst Memorial Mining Building	6,500,000
ICCS/Computer Center	4,797,000
Stanley Hall Replacement	2,238,000
Major campus discretionary funds capital commitments for research facilities	16,167,000

Total listed research support costs and commitments	**112,511,127**
Gross campus overhead recovery	**67,739,920**
Net overhead funds returned to Berkeley from UCOP	**35,051,000**

Notes

1 Cost groupings (excluding depreciation) and allocation percentages from 3/2001 UCB Facilities & Administrative Rate Proposal. Dollars updated to FY 2001-02. Major building commitments are shown below.

2 Allocation bases vary. Operation and Maintenance costs are allocated to research on the basis of space used for research as a proportion of total space benefiting from the specific service provided. Library costs are allocated to research on the basis of campus professional FTE paid from research funds as a percentage of all campus student, faculty, staff FTE and outside library users. Administrative costs are allocated based on expenditures for research as a proportion of total expenditures overseen.

3 Total FY02 equipment purchases from central campus funds. (Federal F&A rate proposals use depreciation rather than current expenditures to allocate equipment costs.)

4 FY02 financial query on management project codes

5 FY02 Financial Statements, Schedule 1-B

6 FY02 financial query on organization and fund codes

7 Excludes faculty effort and other departmental support not charged to sponsored projects. Unlike some research institutions, Berkeley does not ask faculty to contribute to their salaries from research grants during the academic year. Data source: Campus Budget Office (MKK).

8 Office of the Vice Chancellor - Research

9 Financial and Management Analysis Office

10 Campus Budget Office (BW)