GAO Report Documents Rising Indirect Costs

Though indirect costs now account for 30 percent of NIH grants, little will happen until OSTP considers the issue

A recent General Accounting Office (GAO) report* documents the sharp rise in indirect costs associated with National Institutes of Health (NIH) grants. These costs, which are paid as grant overhead to institutions to cover maintenance, administrators' salaries, and other operating expenses, have increased to about 30 percent of all NIH extramural grant expenditures. The report presents several modest proposals for getting better information about and control over what has proved to be a slippery problem—even for those determined to come to grips with it.

The impact of the GAO report might have been greater had it been completed 18 months earlier, when this issue was vigorously being raised. Instead, the report has been issued in the wake of the 1985 budget which, unlike earlier proposals, contained no provision for reducing indirect costs. Now, despite some saber rattling on Capitol Hill and the likely implementation of several of GAO's more limited proposals, the ball has been passed into the president's Office of Science and Technology Policy (OSTP), which will take a more global look at problems underlying the issue.

Undertaken at the request of Senator William Proxmire (D–Wisc.) and Senator Paula Hawkins (R–Fla.), the GAO report includes some striking figures showing how much indirect costs have been rising. During the 10-year period beginning in 1972, for example, their bite of the health research dollar grew from 21 to 30 percent, on average, and by 1982 accounted for $690 million of the $2.3 billion spent by NIH for extramural research. Proxmire cites such figures as "proof positive" that federal oversight of NIH's practices is not adequate.

NIH director James B. Wyngaarden has, however, been steadfastly seeking to restrain the rise of indirect costs, but has met consistently with stiff opposition from university administrators and from Congress (*Science*, 2 September 1983, p. 929). Last year, in order to make more money available for new and competing grants, he proposed that NIH should pay only 90 percent of indirect costs in fiscal year 1984. But the proposal was rejected by Congress, and the Administration subsequently omitted the idea from this year's budget.

The GAO report criticizes how the Department of Health and Human Services (HHS) enforces current policies. Too few audits are being conducted to determine whether indirect cost claims are valid, the report asserts. For example, the HHS Office of Audit issued only 50 indirect cost audit reports during a 5½-year period ending 30 April 1983, involving 47 of some 700 annual NIH grantees. GAO studied 40 of those audits in detail and noted that negotiators used them to disallow almost $58 million of aggregate indirect costs. Although HHS is not planning to conduct audits routinely, it will try to conduct audits when negotiators request them and plans to draw on nonfederal auditors to conduct institution-wide audits.

Another problem identified in the report is sudden jumps in an institution's indirect cost rate. Although each institution receiving an NIH grant negotiates its rate, on some occasions changes are made without adequately documented justification, the report says. HHS inspector general Richard Kusserow says that negotiators will begin documenting such matters more fully, thereby complying with one of the specific GAO recommendations.

GAO's strongest recommendation—and one that university representatives object to most strenuously—is that the Office of Management and Budget should revise current practices and establish fixed allowances for indirect costs. Those allowances might vary from one institution to the next, but they would not be allowed to fluctuate much from year to year. (Independently, several major universities, including Yale and the University of California, have agreed to fixed allowances for indirect costs. However, the idea is far from being universally accepted.)

Wyngaarden also recommends "capping" departmental and general administration costs, which are difficult to audit. However, he concedes that there may be "legitimate points being raised" by university administrators who have argued that escalating indirect costs result partly from complying with federal regulations.

Organizations representing university administrators view the final GAO report as oversimplifying this issue, and say that earlier drafts offered a fairer picture. "HHS is not doing a good job auditing," says an official from the Association of American Universities, but, "In my opinion, the conclusion [to fix indirect cost rates] does not follow from the report."

Whether university administrators can accept the proposal for a fixed cost rate or will reach some other accommodation now has become a matter for OSTP to settle. In February, HHS Secretary Margaret Heckler requested OSTP to consider the question of indirect costs. That issue will be part of a broader look at "the health of American universities," according to Bernadine Bulkley, a recently appointed deputy OSTP director. The informal plan, which is expected to take shape in the next month or two, is to

Indirect cost rates of some leading NIH grant recipients. GAO surveyed 82 of the approximately 200 institutions (from four regions) that received in 1982 more than $3 million per year in federal grant support. FY, fiscal year.

NIH grantee	FY 1982		Indirect cost as percent of total
	Total cost*	Indirect cost*	
Harvard University	55,606	22,912	41
University of Pennsylvania	52,009	18,477	36
Johns Hopkins University	51,317	16,234	32
Yale University	50,619	17,635	35
Duke University	34,351	10,823	31
University of North Carolina	26,242	6,963	26
University of Alabama in Birmingham	24,386	6,160	25
Vanderbilt University	23,328	7,868	33
Boston University	18,698	6,863	36
University of Pittsburgh	17,135	5,279	31

*Thousands of dollars. Data from GAO/HRD-84-3.

**Assuring Reasonableness of Rising Indirect Costs on NIH Research Grants—A Difficult Problem.* (GAO/HRD-84-3, General Accounting Office, Washington, D.C., 1984).

thrash out "the most palatable options." There "has to be incentive within the university" to control such costs, she says. Just what those incentives might be, no one seems willing to say. Nonetheless, whatever measures are eventually deemed acceptable will need to be implemented uniformly throughout federal granting agencies, she believes.

Meanwhile, although the GAO's report will force HHS negotiators to keep better records of indirect cost rate changes, the pressure to do anything major to curb their growth is off. The scolding implicit in the report—as well as a requirement, enacted last year by Congress, that indirect costs be stipulated in NIH grant award notifications to researchers—could, however, act as a subtle curb on indirect cost growth.

—JEFFREY L. FOX

The Procrastinator's Power Source

The fuel cell beckons in the 1990's not just with cleanness and efficiency but as a way to put off coal and nuclear investments

The fuel cell is an admirable invention. It is an electric power generator that is perfectly clean and quiet, has no rotating parts at its core, and promises to be more efficient than any other fossil fuel plant on the market. It can produce electricity without contributing to acid rain and might make it possible to defer construction of new coal and nuclear plants for this century.

The manufacturers say it could become commercially viable by 1990, for large-scale models are expected to cost no more than coal or gas plants: $1200 to $1600 per kilowatt of installed cogeneration (heat and electric) power, or $850 per kilowatt for electric power only.

But the fuel cell has a couple of nagging problems, both of which seem to have an impact on image and morale. One is that the biggest demonstration plant, a trend setter built for Consolidated Edison of New York, has run afoul of a series of nuisance breakdowns and is now at least a year late for start-up. The other annoying fact of life for fuel cell builders is that their single biggest bankroller, the Department of Energy (DOE) keeps saying it intends to cut back its finances. This amounts to a nagging threat only, not a real one, because it has never been carried out.

DOE's objections are mainly ideological. The department views the first generation fuel cell (containing phosphoric acid) as an extremely efficient device for burning fossil and synthetic fuels but also as an overfed baby. For several years DOE has argued that the idea should leave the federal nest. It is time for private industry to pay for the "commercialization" of fuel cells, DOE says, and time for the government to withdraw its subsidy.

But the industry sees things differently, and Congress follows the industry's lead on this matter, not DOE's. This year, once again, the fuel cell program will be boosted to three times the size DOE would like, from DOE's budget request of $13.7 million to around $40 million. The House Science and Technology Committee marked up the new budget in April. One DOE staffer said afterwards, "The lobbyists, that is, the manufacturers, got essentially what they asked for. I don't know of anyone who thinks you should spend more than $40 million a year on fuel cells."

For several reasons, DOE's attempts to cut funds have failed 5 years running. The program is a flyspeck on DOE's $4 billion civilian budget, and it has some influential congressional backers from Pennsylvania and Connecticut, where the manufacturers—Westinghouse and the United Technologies Corporation (UTC)—are headquartered. Perhaps most important for its survival is its glittering promise. If the sponsors are correct, the fuel cell could become a glossy new electric technology in the 1990's, having an appeal like that of the nuclear reactor in the 1960's.

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The fuel cell has much to recommend it. Because its chief wastes are clean water and carbon dioxide, it is an environmental dream. It is quiet, unlike combustion or steam generators. However, as Westinghouse project manager Donald Newby points out, the plant does look something like a small refinery, and in urban settings it will have to be housed in sheds for camouflage. But it is the only system (other than solar panels) one can imagine building in a city today. Aside from cleanness, the important selling points are the speed with which it can be installed and its tremendous efficiency. The fuel cell is more productive than any other fossil system, even when running at low power. Conventional rotor systems lose efficiency as they lose speed. The heart of the fuel cell has no moving parts. It converts hydrogen and oxygen by an electrochemical process to electricity and water.

Westinghouse predicts that in the 1990's it will be able to install a 7.5 megawatt (MW) fuel cell plant and have it running within 2 years of an order, and additions will be available in 7.5 MW modules. This means that utilities that wish to expand by buying fuel cells will be able to avoid committing themselves to the enormous, decade-long construction projects that are wrecking their finances today. (These big plants come in sizes about 100 times larger than the Westinghouse fuel cell.) The new technology allows for less construction time, more flexibility, and greater control over cash flow. As one advocate says, it allows an electric utility to opt for a "strategic delay." Because of a deep uncertainty about the future, many utilities see this stalling option as a good thing, even if expensive.

There is another kind of generator that permits delay: the gas or diesel combustion turbine. Utilities are buying many of them at the moment, for the same reasons they may later want fuel cells. Turbines will remain cheaper to install than fuel cells by at least $600 per kilowatt.

According to Newby of Westinghouse, the fuel cell will have two clear advantages over the turbine in the 1990's. First, it will be available for purchase in smaller "bites"—7.5 MW each from Westinghouse and 11 MW each from UTC—as opposed to large