Stanford Erupts Over Indirect Costs

A soaring indirect cost rate—so high that it may be curtailing research—has pushed Stanford's science faculty to the brink of open revolt

RESEARCHERS AT PRIVATE UNIVERSITIES grumble endlessly about overhead charges levied against their grants. Usually the grumbling just simmers below the surface. But last fall, the faculty of Stanford University erupted in revolt over the issue. In a flurry of letters and emotional meetings, they deluged the administration with bitter complaints that a bloated bureaucracy and campus-wide building fever was burdening them with costs that would strangle their research. The tinder for the explosion was the news that Stanford's overhead—already among the highest in the nation at 74%—would rise to 84% by 1993.

Part of the problem arises from what even Stanford president Donald Kennedy acknowledges as a "time warp": an ambitious building campaign planned in the early 1980s based on assumptions that the university's income from research grants would rise more than it has in the past decade.

Administrators blame the shortfall in grant income on a tightening of government funds. But some researchers say it has been brought about by Stanford itself—through its drive for newer and better facilities and more prestige, they say, Stanford has begun to cannibalize its own scientific enterprise. By skimming a high rate of overhead off grants, the university may have begun to make it harder for its own researchers to get funded.

"It's the classic rock and the hard place," says John Hughes, Stanford's assistant provost for planning and management. Electrical engineering professor William Spicer agrees: "We have to have buildings, but we also have to have the ability to go out and compete successfully to get research money, or the buildings won't be of any use." Chemist James Collman, whose department is in line for new space, says many of his colleagues are willing to do without. "Unless you can find a way to build the buildings and not increase the overhead, just don't build the buildings," he urges the administration. "We'll have buildings and nobody to work in them."

Complaints like these have already had an impact. Stanford is now slashing its building program and has announced plans to trim administrative costs in an effort to cap its overhead. But the faculty is far from mollified because even these measures will not prevent Stanford's overhead from rising to the highest of any university.

Overhead charges, also known as indirect costs, are a university's way of recovering the indirect expenses of research, such as the costs of utilities, libraries, building maintenance, administrative support, parking, and roads. The government guidelines allow universities to practice "full cost recovery," which means that theoretically a university can recover nearly all the money it has spent in support of research. Allowable charges include a portion of the expense of running the president's and provost's offices, and even some of the cost of maintaining tennis courts and swimming pools used by research staff. New buildings and equipment, including those built and purchased with earmarked gift money, can be depreciated, and the depreciation charged to indirect costs.

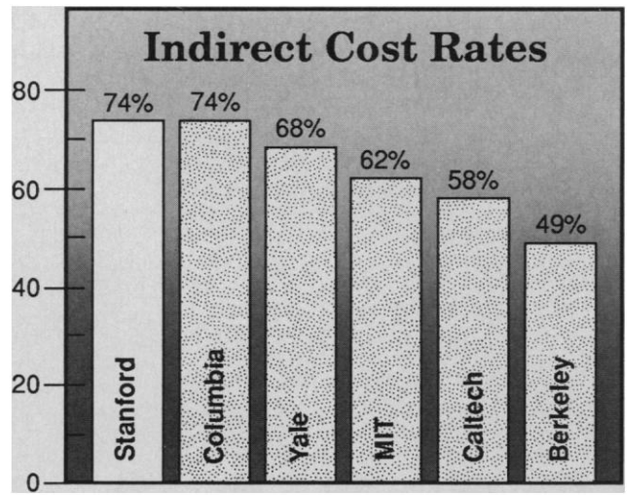
Public universities, whose buildings are state-subsidized, have little incentive to do the detailed reporting necessary for full cost recovery, since any money recovered would flow into state and not university coffers. But most private universities aim to recover what they are entitled to. University accountants comb the guidelines for every expense that can be legally counted as an indirect cost of research. The indirect cost rate is then determined by taking the university's estimated expenses and dividing them by the projected research income. The rate is then charged to all research grants. Stanford's rate of 74% means that, if a Stanford professor submits a grant with a budget —including employee benefits—of $100,000, the funding agency must spend $174,000 to fund that grant. The same grant would cost the government $158,000 at Caltech, or $149,000 at the University of California at Berkeley.

Last fall, when Stanford faculty heard the ominous news that they could expect the number to rise to $184,000, they knew they were in trouble; that's when the revolt began. Chemist Collman urged his colleagues to write letters to the provost, president, and campus newspaper. Dozens did. The letter-writing campaign led to what Collman describes as "a very heavily attended and somewhat hostile" open meeting of the academic senate's committee on research. After that, engineer Spicer picked up the baton, organizing the first of a series of lunches with the president and provost where faculty aired their gripes.

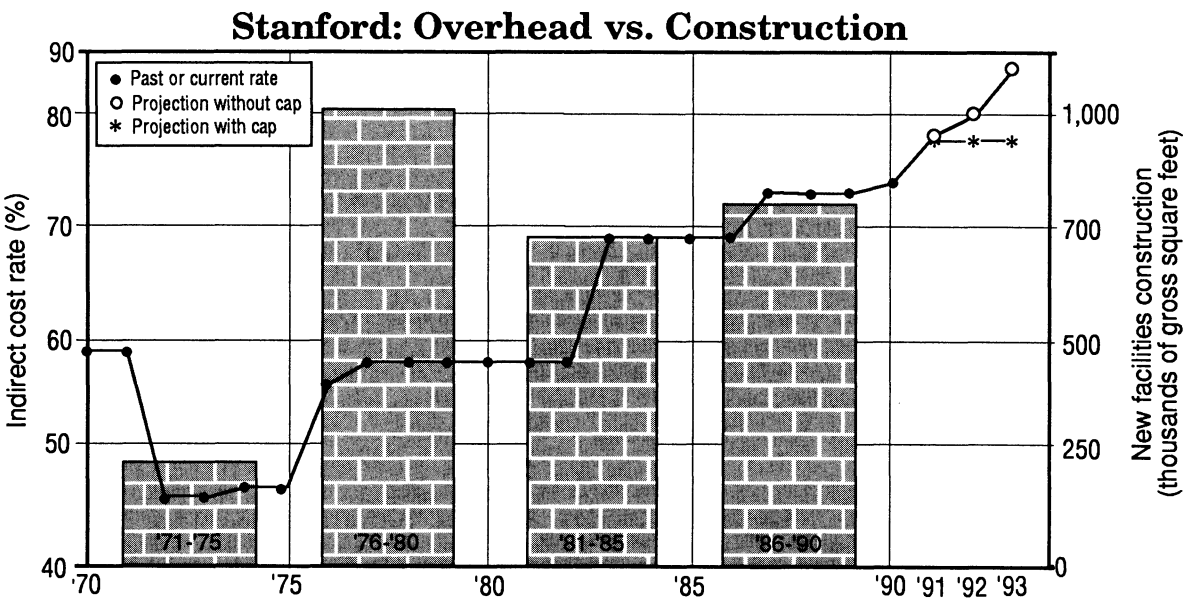
Faculty who get their support from the National Science Foundation are among the most vocal complainants. "NSF looks at the total amount requested," says biology professor Charles Yanofsky. "If you're at a place with high indirect costs, you're just out of luck." Yanofsky, who has had NSF funding for 33 years, said his most recent NSF grant, now in its third year, gave him a flat annual rate of $165,000 for direct plus indirect costs. "It's been a disaster," he says, as increasing indirect costs consume a larger chunk of his fixed funding each year.

"Predatory," is the word Spicer uses to describe Stanford's overhead rate, which he says is visibly hurting productivity. "The operating unit is a graduate student," he says, and the same amount of money supports "noticeably fewer" graduate students at Stanford than elsewhere.

Because funding agencies are under pres-



sure to get the most research for their money, Spicer says, they are likely to pass over Stanford if they see better value elsewhere: "If they have two equal proposals from here and Berkeley, I can see why they would fund Berkeley."



Researchers with support from the National Institutes of Health have traditionally been shielded from concern over indirect costs, because NIH study sections considered only direct costs when selecting grants to fund. But that policy changed in 1987, and NIH now requires grant applicants to report their indirect cost rates. "My colleagues on the study section are saying 'why the hell does Stanford charge 74%?' " says psychiatry professor Roland Ciaranello. "I've seen people say, 'I don't care how good this grant is—I'm not going to award this amount of money so that Stanford can do what it damn well pleases.' So they cut the direct budget as a means of cutting the indirect. The poor guy who wrote the grant doesn't have any control over that."

Ciaranello claims to see both sides of the issue—as chairman of the medical school's budget committee since 1985, he says he understands the necessity of indirect cost recovery. But as an NIH grantee, he feels the pinch that high indirect costs pass on to the researcher. He says he recently submitted a program project grant to NIH with a first-year direct cost budget of $780,000, which was brought to $1,357,000 when Stanford added in its 74%. "They [the NIH] said, 'we're going to give you $850,000, direct plus indirect'," he says, resulting in a 38% cut of his direct budget. "They're forcing investigators to fight it out with their institutions," he concludes.

Disgruntled Stanford scientists say the university believes its faculty are good enough to find more funds to make up for the bite taken out by indirect costs. "Stanford is telling you, 'You're a faculty member who can get a grant, so go get another grant if you need more money'," says Yanofsky. "It's probably no longer true. It has reached the point where the dollars are in short enough supply that Stanford faculty can't just go out and get grants at will."

Stanford reached its position among the indirect cost leaders (along with Columbia University at 74% and Harvard Medical School at 77%) largely due to its active building program. "We recognized early that our science facilities had a finite life, and we have been busy replacing them," says provost James Rosse. "That has had a big impact on our indirect cost rate."

There is no question that many Stanford science facilities are barely adequate. Furthermore, growth into any available space has caused some departments to be scattered haphazardly about the campus. Information sciences, for example, is spread among seven far-flung locations.

In the early 1980s, in an effort to consolidate departments into modern facilities, Stanford began plans for Near West Campus, a $250-million building project devoted entirely to science. As originally planned, Near West would have provided 800,000 square feet of space to replace about 400,000 square feet in buildings that were to come down. The first Near West building, which will house biologists, is now under construction, and several others were scheduled to begin construction this year.

But Near West was planned on the basis of rose-tinted estimates of the size of the grant base on which indirect costs could be charged; and that grant base has not grown as fast as expected. A university-sponsored study of indirect costs released in 1988 warned that Near West would send overhead soaring by 13 points in 10 years.

When they heard the price to be extracted from their grants, many faculty—including some who stood to benefit from Near West—cried out that they can't afford it. "It was an absolutely magnificent plan," says Spicer, "but it could be justified only if money were no object."

Stanford's apparently insatiable appetite for new buildings—recent years have seen the construction of the Center for Integrated Systems, the Keck Science Building, and the Beckman Center for Molecular and Genetic Medicine, to name just a few—is viewed by many faculty members as something close to a scam. "Stanford gets gifts to build a building, then the research essentially buys it back," Spicer complains. "The fact that they can depreciate all of these things, and bring in a lot of money, I think has been a stimulus to go out and build the buildings," grumbles Collman. In a letter to the campus newspaper, applied physics professor Sebastian Doniach called the depreciation scheme "money laundering," because it converts earmarked money to general funds.

Provost Rosse disputes this impression. "We're not overwhelmingly successful in raising money for buildings," he says. Less than a third of the $34 million for the new biology building came from gifts, he told *Science*. The rest will come from debt that represents a real expense to the university. Rosse also says the view that indirect costs represent a money-making scheme is incorrect. "It's not income for the institution, it is recovery of costs that we have spent or are spending." Researchers tend to underestimate the burden they place on facilities, Rosse says. In support of that point, he cites the 1988 indirect costs study, which claimed that, contrary to common opinion, more of the university's general funds money goes to support research than is recovered from grants through indirect costs.

Another factor that breeds higher indirect costs—and faculty resentment—is the growth of bureaucracy. Rosse acknowledges that in the last decade the university's staff increased by 23% while faculty was growing by only 5%. But, he says, some of that

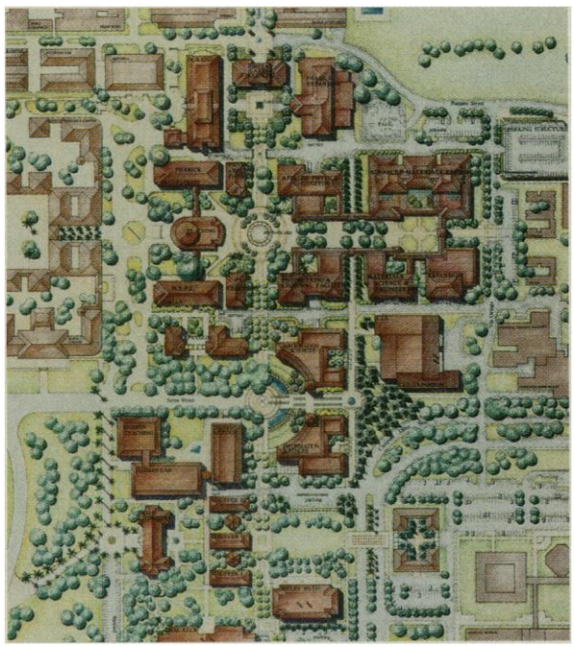
growth was necessary because of increased demands on the university in areas such as health and safety. The legal offices have also been burdened by community activism targeted against animal and hazardous research. "You can't say that the growth of the staff is just bloat," Rosse says, "although I'm not about to say there isn't some bloat in it."

Angry faculty, however, don't see that they're getting much more out of the growing ranks of bean counters and pencil pushers. "The staff has increased enormously, and somehow it seems a lot harder to get things done, not easier," says Spicer. He tells the story of the struggle he recently had to retain a highly skilled machinist, who had been laid off because the space he worked in was needed for another use. "My group has supported 70% of his work for 16 years, and no one thought it important enough to contact me." Spicer says he called the human resources office but got little help. "We have this bureaucracy, but I can find no sign that they are being told from above that they have to worry about the functioning of the university," he says. "That this thing could happen is symptomatic of the problem."

Geology department chairman Gordon Brown complains that a fat bureaucracy has sent building maintenance costs through the roof. "The people who come in to fix plumbing, paint a wall, or change light bulbs charge an arm and a leg," he says. Biology chairman Robert Simoni agrees: "Everyone wants the best quality possible, but there are other times when you just need a plug. And it doesn't have to be a gold-plated plug."

Provost Rosse is sympathetic to the faculty frustrations. "We recognized some time ago that we are spending more on services and getting less than we want," he says. "I can add to the horror stories myself—anybody can."

Indeed, far from dismissing the problem both Rosse and Stanford president Kennedy are adamant that action must be taken. "Plainly we are going to have to control indirect costs," Kennedy told *Science*. "The question was not whether, but when," Rosse adds. "We no longer think we can continue to compete with other institutions without taking drastic action."



So near and yet so—expensive. *Near West Campus, shown in an early plan, was initially a $250-million project devoted entirely to science. A university-sponsored study estimated that completion of Near West would raise Stanford's overhead 13 points in 10 years.*

But debate continues over what action is drastic enough. After the January meetings with faculty, Kennedy and Rosse announced a plan to cut $22 million from Stanford's operating budget of $388 million in the next 18 months, through what Kennedy calls "draconian efforts" to streamline the bureaucracy, and "intelligent building deferral." The indirect cost rate will rise next year to 78%, but will be capped there, with a university promise to eventually try to lower it. The university hopes to trim costs enough to continue practicing full cost recovery, but Kennedy says that if those efforts fall short, Stanford will subsidize research rather than raise the overhead rate.

As part of the austerity program, the Near West construction will be slowed and cut back to $190 million. The advanced materials building, scheduled to go up next, will be cut in size by half, with provisions in the design for additions to be made later.

Kennedy and Rosse promise to slash away at administration as well, with plans to cut the budgets of some offices, including human resources, legal counsel, and the offices of the president and provost, by up to 30%. Rosse says the administrative budget cuts dovetail with a new program to investigate and reduce inefficiencies in the bureaucracy. "We knew we were going to have to reorganize the enterprise, so cutting costs didn't just lead to continued bloat and lack of service," he says. As a result, Stanford may discontinue some services that can be more economically obtained off campus.

But some faculty don't think this agenda goes far enough. "Capping at 78% is gratuitous," says Ciaranello, angered that the school is allowing rates to rise from the already problematic 74%. "That makes no sense at all." But Kennedy says it is too late for a cap at 74%, because the expenses driving the rise to 78% have already been incurred.

What else can Stanford do, the administration might ask. Some faculty would like to eliminate building depreciation altogether, even if it means abandoning full cost recovery. They point to Columbia and Massachusetts Institute of Technology, which do not depreciate buildings, but instead collect a use fee of 2% of the building's original cost. MIT can afford that strategy, according to its vice president for financial operations, James Culliton, because it has few new buildings, having focused more on renovations, an approach which may account in part for its relatively low 62% overhead rate. In addition, MIT has been very conservative, Culliton says, in predicting the growth of its research grant base, generally underestimating, rather than overestimating, its actual growth.

Caltech, on the other hand, has a policy of not incurring debt for a research building. Hence it doesn't begin construction until all the money for the building is in hand from donations—another policy many Stanford faculty are now calling for. But Caltech does depreciate new buildings. Its low indirect costs (58%) are probably due to its tradition of minimal administration and the fact that it hasn't built much lately, says Earl Freise, Caltech's director of sponsored research.

Stanford may be the building leader, but it is not alone in the indirect cost squeeze, nor in its struggles to hold those costs down. Six years ago Columbia's overhead hit 74%, prompting it to do what Stanford is now being forced to do: cap the rate and subsidize costs it can't recover at the lower figure. But the capping of rates that have already shot up into the 70s may not appease granting agencies that are increasingly intolerant of high indirect costs. If Stanford and other universities don't self-impose a lowering of their rates, psychiatrist Ciaranello warns, they might find themselves facing a government-imposed cap, as he says has already been discussed at the National Institute of Mental Health. "If they [the government] cap it, it won't be a thoughtful, reasoned, rational action," he warns. "Some congressman, or somebody at [the Office of Management and Budget], will say 'starve the bastards at 50%.' That would kill the university. That's nowhere near what the real costs are." ■ MARCIA BARINAGA