two positions at NASA could be named as early as this week, Beckwith believes, although "early March" is more likely. While the president and his aides are not giving out names, everyone else in the space community is speculating about who has made it to the president's short list. The "four As" are among those most often mentioned: James Abrahamson, the onetime Air Force general who ran the Strategic Defense Initiative Office and is now an executive at the Hughes Aircraft Corp.; Norman Augustine, chief executive of Martin Marietta and chairman of the special advisory panel that last year urged NASA to make science its first priority; Edward "Pete" Aldridge, chief executive at the Aerospace Corp. and a former Air Force general who warned of the shuttle's flaws before the Challenger accident; and Joseph Allen, a former astronaut who became president of a boat-rocking young company in Houston, Texas, called Space Industries, Inc. Most of these candidates were unreachable last week, although Allen, after a tentative "no comment," disclosed that he has not been contacted about the top NASA position.

A more specific rumor that fluttered through NASA headquarters last week, says a contractor who spends a lot of time there, is that the new team will include Abrahamson in the top position and Michael Griffin, currently director of NASA's Office of Exploration, as number two. Griffin and Abrahamson both belong to the school that advocates developing "cheaper, quicker" methods of reaching space, and both have worked closely with Quayle's staff. Griffin moved to his current position at NASA last August, at the White House's insistence; he was not Truly's candidate for the job.

It may be hard to persuade industry candidates to take the assignment, says Jerry Grey, science adviser to the American Institute of Aeronautics and Astronautics. "They really need somebody," Grey says, "but it's a thankless job" that brings "vituperative criticism" and would require a major pay cut for most executives. But whoever the president's final choice turns out to be, the nominee is likely to be someone who will have more sympathy for the shakeup effort led by Vice President Quayle and his National Space Council.

It is no secret that Quayle and his space group have clashed with Truly in the past year over where NASA should be headed. Quayle and the council staff have been pressing NASA to innovate and develop smaller, cheaper space vehicles. But Truly dug in his heels on a number of issues and insisted that NASA should take care of old business first—which for Truly meant getting the shuttle running smoothly and building solid support for the space station.

NASA and the White House clashed in 1990 on whether or not to prolong the life of the shuttle program by building a sixth orbiter. Truly "went to the mat" in favor of the purchase, and lost a "bitter fight," says Logsdon. Truly also seemed to "lack enthusiasm" for the President's Space Exploration Initiative, a plan to send humans to the moon and Mars. And he gave indifferent support to other projects favored by Quayle, such as the national aerospace plane and the proposed development of a new rocket system to carry cargo cheaply into space, called "the national launch system." In the end, says Logsdon, the president "became convinced that he was not going to be able to get the kind of [space] program he wanted as long as Truly was there."

And then there was the matter of style. According to John Pike, policy analyst at the Federation of American Scientists, Truly was "doing the inside job himself...running the agency on a day-to-day basis," rather than representing its broader interests to Congress and the public. Representative Brown agrees. Truly seemed to "get himself too much involved in the details of NASA management when his strength was really meant to be in NASA's external relations," says Brown. "He may have spread himself too thin." The fact that Truly himself did the work of a deputy administrator may have made it harder to recruit a true deputy, some observers say.

In the end, says Logsdon, Truly is "a guy of very high integrity who has a particular view of NASA, and when he found that his bosses didn't share that view, he fought his bosses." The "right thing to do when you find yourself in that position," Logsdon says, "is to leave." Had Truly done that earlier, Logsdon thinks, he might have spared himself last week's ordeal. But now NASA as well as Truly may be in for an ordeal. At least, that's what Truly himself seemed to indicate last week as he announced his departure to agency employees. Over NASA's in-house TV network he gave a gloomy forecast: "In the Navy, when you're entering very tough situations and rough seas, there's a saying called 'steady as she goes.' That's what I'd like to impart to you today." ■ ELIOT MARSHALL

# Stanford Faculty Tackles Overhead

The last time Stanford faculty spoke out in large numbers on the issue of indirect research costs, they lambasted their administrators for driving Stanford's overhead rate through the roof (*Science*, 20 April 1990, p. 292). Now they are up in arms again—but this time over rates so low they say they may threaten the entire research enterprise. "The government seems determined to seriously damage a large fraction of research universities," warns Arthur Bienenstock, director of the Stanford Synchrotron Radiation Laboratory. Bienenstock and his colleagues are banding together, trying to head off the rate decreases before it's too late.

The faculty were shocked last year when, hard on the heels of several rough hearings held by Congressman John Dingell (D–MI)—hearings that ultimately forced Stanford president Donald Kennedy to resign—the Office of Naval Research (ONR) cancelled agreements that had set reimbursal rates for such things as buildings, equipment, and library operations. That brought Stanford's indirect cost rate from 74% to 55%. Many who had spoken out thought 74% was too high and worried that it would continue to rise under big-spending administrators, but few thought the university could sustain itself with a rate much below, say, 65%. But worse news was to follow, jolting faculty members into action. At hearings held last month by Dingell, Defense Contract Audit Agency (DCAA) director Fred Newton suggested that the agreements be revoked retroactively back to 1981 (*Science*, 7 February, p. 679). That would drop the rate for that decade to an anorexic 37% or less and require Stanford to pay back hundreds of millions of dollars to the government.

"This swinging of the pendulum will destroy research," says Haresh Shah, chairman of civil engineering at Stanford. Bienenstock, Shah, and a handful of other senior science faculty and department chairmen have held a series of impassioned meetings over the past few weeks to determine how to ward off these dire actions. The problem, says biology chairman Robert Simoni, is that "whatever we do, we will be accused of acting in self-interest." Which is why plans for sending a delegation to Washington were scrapped—the group didn't want to worsen the situation inadvertently by appearing to go over the heads of the government negotiators. Instead, they settled on a letter campaign to the press. Shah, Bienenstock, and materials science chairman William Nix tried to rally colleagues in a letter that appeared this week in the *Campus Report*: "Just as we protested indirect cost rate increases," they wrote, "we should speak out against attempts to impose arbitrary, low rates, and the refusal to enter into fair negotiations."

What has made these faculty members change from their anti-Administration stance of 2 years ago? After all, some admit that they welcomed Dingell's investigators when they first arrived on campus in 1990. "A lot of faculty felt that finally the university would have to listen" and curb the climbing rates, Shah recalls. But that welcome quickly cooled. "As time went on," says Shah, "the [government] people became zealots, rather than really trying to solve the problem."

Shah maintains that some of the flashiest disclosures—revelations of money spent on fruitwood commodes, $2,000 floral arrangements, and cedar closets for the president's house—dealt with an insignificant percentage of the indirect costs, but nonetheless created an image of widespread fraud that would later serve as an excuse to hack away at overhead rates. "We are delighted they caught those dumb things," says Shah. "But to [then] say that everything we do is wrong is crazy."

Moreover, Stanford faculty who were part of the original revolt say they saw no signs of corruption and were reacting only to overambitious spending. "The university should have been more frugal in what it spent," says electrical engineer Anthony Siegman, "but what it spent was honestly spent."

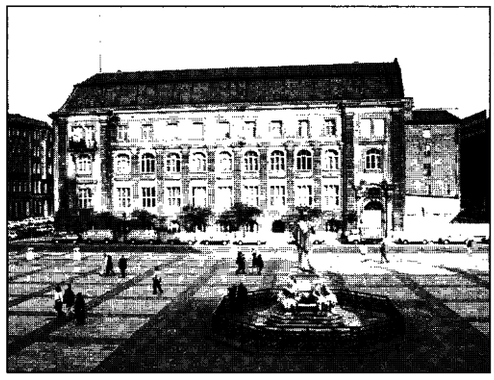
They also take strong issue with the reason given by the DCAA for cancelling the agreements—that Stanford's cost-studies don't support them. Stanford completed the studies in good faith, says Bienenstock, and if the government questioned them, it didn't have to sign the agreements. But government representatives did sign, and "a contract is a contract," he insists. Further, Stanford shouldn't be punished, its faculty say, just because DCAA didn't audit Stanford for a decade. Revoking 10 years of contracts retroactively with no room for renegotiation is not only "punitive," says Bienenstock, but will devastate research at Stanford. More disturbing yet, he says, it suggests a government trend away from providing adequate support for university research.

DCAA declined to comment on the rationale for the Stanford cuts, but it is apparent that Stanford's faculty aren't the only ones who think things have gone too far. "Mr. Dingell...has unleashed forces that threaten to do unspeakable damage to the nation's leading universities," warned an editorial in the 9 February *New York Times*. Bienenstock, for one, is heartened by such defenses, hoping they will help turn the tide of public opinion. "This country has a way of turning around. It goes through these periods, and then it realizes its fundamental values and needs," he says. "Research universities are an important national resource." ■ MARCIA BARINAGA

# Berlin Academicians Refuse to Go

*Berlin*—Since it was founded in 1700 by mathematician-philosopher Gottfried Wilhelm Leibniz, inventor of differential and integral calculus, the Academy of Sciences in Berlin has survived two centuries of the Prussian kings, 12 years of Hitler, and 40 years of communism. But it's not entirely clear that it will survive the unification of East and West Germany.

By the time the two Germanys signed the reunification treaty in 1990, they had already agreed on how to tackle the reorganization of East Germany's network of 60-odd scientific research institutes. But they left unresolved precisely what to do with the academy itself. Located in what was East Berlin, it has served as a distinguished honor society for more than 250 years, and currently has about 200 members, most from the former East Germany. It also boasts some priceless nonhuman assets: an enormous turn-of-the-century building right at the center of old Berlin, a superb library of 350,000 volumes, a magnificent archive of the work of Leibniz, von Humboldt, and other famous German scientists, and the historical legacy of a 292-year descent from Leibniz.



ULLSTEIN-MANFRED KLÖCKNER

**Leibniz' legacy.** *The Academy of Sciences building.*

The new Berlin senator for science and research, lawyer Manfred Erhardt, has essentially proposed taking over the academy's assets but not its members. He wants it to be the home of a new academy set up in collaboration with the surrounding state of Brandenburg. "I want a new beginning. I do not want to get anybody foisted on me," Erhardt told *Science*, explaining his unwillingness to inherit scientists from the communist era.

So far, his plan seems to be to ignore the academicians in the hope they will go away and form their own private society. Erhardt's office sends back letters from the academy unopened. Pay for the five academy administrative staff has been terminated without notice. And in public, Erhardt refers to Horst Klinkmann, the academy's president and a medical professor from the University of Rostock in Mecklenberg, as the "ex-president." But Erhardt has not actually dismissed the 200 academicians. On that issue he passes the buck back to Klinkmann—it's his job to get rid of them, he says.

Klinkmann is having nothing to do with it. "The idea that a Mecklenburg country doctor shall disband the academy, which a universal genius, Leibniz, founded—that's just ridiculous," he says. He points out that the learned society includes several Nobel laureates and distinguished foreign members (among them Manfred Eigen, Ilya Prigogine, Victor Weisskopf, and Julius Axelrod), that steps have already been taken to get rid of communist appointees, and that more than 30 of the academy's own long-term research projects have won approval from the German Science Council—helping persuade the academy that it is far from dead. Indeed, such is the faith in the academy that most of its administrative staff are continuing to work without pay while Klinkmann gets ready to fight in court.

The law is on Klinkmann's side according to Hans-Peter Schneider, a law professor at the University of Hannover and one of the leading experts on constitutional law in Germany. He points out that the reunification treaty states: "How the learned society of the Academy of Sciences of the German Democratic Republic is to be continued, shall be ruled by state legislation." Schneider contends the wording does not allow for the "abolish-and-rebuild" approach that Erhardt supports.

Barring a political solution—which looks improbable even though the Berlin parliament plans hearings on the problem next month—Schneider's views are likely to be tested in court. That should ensure that the stalemate lasts at least another couple of years. ■ RICHARD SIETMANN

*Richard Sietmann is a free-lance science writer based in Berlin.*