

Indirect Directions



Which cost is allowable?

Stanford University has learned all too well that you have to worry about the expenses you charge the government these days. To guard against future yacht or beer-bash bills, Stanford faculty who have government grants are now required to sit through a short course on what they can and cannot charge the federal government. And just in case the content goes by too fast, the course provides handy take-home crib sheets that any college professor should be able to follow.

Tists in the Hood

Isaac B. Horton III is something of a rarity: a black organic chemist. Also, he's tired of the distinction. So Horton, a market manager with the Rohm and Haas Co. in Philadelphia, has come up with a creative approach to the problem of getting more blacks into science: a TV series combining rap music and teenage dramas to tell stories about African-Americans who have contributed to science and technology.

During the Congressional Black Caucus convention 2 weeks ago, Horton and corporate backers appeared on Capitol Hill to talk up the series, called "The Science Factory," that he is now developing.

Horton explained that anti-intellectual peer pressures, the perception of scientists as weirdos, and the idea that science is not very profitable all conspire to prevent young blacks from seeing science as a way out of the ghetto. "These kids don't watch public television," said Horton. So his proposed first step toward changing science's image in the inner city—as he told members of Congress, community leaders, and others willing to listen—harnesses

primetime network television and "urban black vernacular, and that means rap." Horton himself has already composed a rap song called "The Tist."

The R.W. Johnson Pharmaceutical Research Institute buys the argument and has pledged to see the project off the ground, though at this point it will not make public how many dollars it is willing to commit. The institute's vice president, John McGuire, says he believes the series "will have national impact." He acknowledged that the company stands to gain public relations brownie points from the venture—but in view of the anticipated shortages of scientific manpower, "this is not philanthropy; it's survival."

New Awards

President Bush is looking for young scientists and engineers to become role models for U.S. children. So last week he announced a new Presidential Faculty Fellows Program, which will provide some encouragement to

Money for Brains

Johns Hopkins neuroscientist Solomon Snyder has captured the richest prize in American science—the \$331,000 second annual Bower Award in science, which is administered by the Franklin Institute in Philadelphia. Cited for opening new doors in the understanding of drug addiction and the effects of drugs on the brain, Snyder played a key role in the discovery of opiate receptors as well as of enkephalins, the brain's endogenous opiates. A second Bower Award, for business leadership (no money is attached to that one), went to former Xerox chief David Kearns, who is now deputy secretary of the Department of Education. The awards are the result of a \$7.5-million bequest by Philadelphia chemical manufacturer Henry Bower.



Solomon Snyder

up to 30 young faculty members each year by giving them 5-year grants worth \$100,000 annually. The idea is to reward young scientists active in science and engineering education.

The National Science Foundation (NSF) will administer the program, with final selections to be made by the White House. Each university may nominate

up to two faculty members who have held their positions for less than 4 years. Unlike the NSF's 6-year-old Presidential Young Investigators Program—which awards participants \$25,000 a year and an additional \$37,500 if they get matching funds from industry—the Faculty Fellows will receive all their money with no strings attached.

Rating University R&D

Every year university officials, as well as local governments and higher education associations, eagerly await the National Science Foundation's (NSF) annual rankings of R&D expenditures at the country's 100 biggest research universities. But researchers at the University of Arizona's Center for Higher Education are trying to put the annual rite in perspective: It's a one-dimensional measure of a multidimensional situation, they argue. "Although R&D expenditures measures institutional ability to raise research money, it does not assess research activity in any broad sense," say Randall H.

Groth, Kenneth G. Brown, and Larry L. Leslie in a paper now seeking a publisher.

The three researchers aren't just speaking off the cuff. They have spent the past 5 years refining an alternative system, called a Research Activity Index (RAI). The RAI derives a single score for each institution from 11 weighted variables. These include total Ph.D.s awarded; R&D expenditures from federal, local government, industrial, and institutional sources; equipment expenditures; numbers of graduate and postdoctoral students in science and engineering; and an index of library size.

The results produce a ranking that sometimes varies quite a bit from that produced by the NSF. Harvard, for example, was in 5th place in the NSF's scheme in 1987 (the latest year for which the analysis has been performed), but only 14th according to the RAI—reflecting the fact that Harvard gets relatively less money than the average university from nonfederal sources. Texas A&M, in contrast, is ranked 7th—as opposed to 14th by the NSF. Center director Leslie says factors such as the addition of graduate students or more equipment expenditures could jack up rankings.

University R&D activity, 1987*
Two Alternate Rankings for Top 10 Institutions

NSF	U. of Arizona's RAI
1. U. Wisconsin-Madison	MIT
2. Cornell University	U. Wisconsin-Madison
3. Stanford University	Cornell University
4. U. California-Berkeley	Stanford University
5. Harvard University	U. Michigan
6. MIT	U. Minnesota
7. U. Illinois-Urbana	Texas A&M University
8. U. Minnesota	U. California-Los Angeles
9. U. Michigan	U. Illinois-Urbana
10. U. California-Los Angeles	U. Washington

*This was the latest year for which figures are available when the analysis was performed; the RAI is now being updated.