Letters

Research Costs

In his article "Government policies and the cost of doing research" (1 Feb., p. 480), Donald Kennedy points out how building-related costs have been the strongest factor driving up the indirect cost rate at Stanford (now 69 percent) over the past decade and a half. He indicates that this rise has occurred to a large degree because the federal government stopped financing research facilities. Universities have acquired buildings and equipment from private sources and then have put depreciation and use allowances for these capital items into the federal indirect cost pool.

He also states that, because facility-related indirect costs are fixed, they must be spread over a relatively smaller number of direct cost dollars if federal contract and grant volumes decrease. This further tends to increase the institutional indirect cost rate.

Despite Kennedy's putting a good face on these practices in the name of Big Science, I think they are and have been wrong on several grounds:

1) If private sources donate equipment or funds for research buildings to universities, why should the federal government have to pay depreciation and use allowances on these items through indirect costs? Operational expenses for such facilities are fair, but the capital expense recovery does not seem appropriate. The federal government, through its income tax provisions, has already "paid" for such donations to a significant extent through business-accelerated depreciation, business-expense treatment, and charitable deductions. If a university borrows money or uses its general funds to purchase such capital goods, then federal recovery makes sense. But if the source is a specific research donation, the university is taking advantage of the government. If Big Science requires business and charitable organizations to help share in the expenses, then these costs should not be thrown back on the federal government through the indirect cost pools.

2) If total federal research dollar awards at a university decrease, the facility-related indirect costs should, in general, also decrease. Indirect costs are real costs of research that cannot be specifically or easily identified with the particular projects. However, when a university simply redistributes its research facility–related costs to whatever federal research projects exist at a particular time, this suggests "fiddling" to maximize indirect cost recovery even though it may be in accord with current federal regulations. This would mean that, the more direct costs go down, the more indirect costs go up.

3) For two decades the academic community and research universities have paid a terrible price in increasing federal regulation and audit scrutiny because the government was trying to stop disproportionate rises of indirect costs in relation to direct costs. Burdensome effort reporting requirements were instituted and have wasted time and resources of faculty and administrators. Millions upon millions of dollars in federal research expenditures have been disallowed by auditors and repaid by universities, and the drumbeat of adverse publicity has hurt the reputations of our finest institutions. The professorial outcry against federal bureaucratic intrusion has in turn tarnished the federal regulatory and granting agencies (*1*). One would hope that a lesson has been learned on both sides. More workable approaches, such as fixed rates for the "departmental administration" category of indirect costs at universities, are being tried along with relief of some of the more onerous effort reporting requirements. However, if university administrations continue to use every loophole to maximize indirect cost recovery come what may, then what will probably come is more bureaucratic intrusion or perhaps fixed rates for all indirect cost categories, despite the best arguments of university spokespersons on the need for more federal support of the university research enterprise.

4) Kennedy rightly criticizes those few universities using the political process to obtain federal funds for research facilities without the scientific review process. But how different is it if a university obtains great quantities of privately donated equipment that then is paid for by the federal government through depreciation and use allowances in the indirect cost pool? These costs did not go through the federal scientific review process either. Indirect cost negotiation is the province of federal accountants who have no expertise to judge scientific merit. Some observers say that if indirect costs are capped through fixed rates there will be more placement of facility-related costs in the proposal budgets of investigators. I would have more confidence in scientific review panels' assessing the reasonableness of such costs on a project basis than outside accounts reviewing indirect cost data.

5) Perhaps the worst effect of the disproportionate rise of indirect costs is the corresponding reduction of direct cost dollars available for investigator projects. Except for defense-related work, the federal pool of money for academic research has not been growing beyond inflation in recent years, and for the next few years of the Reagan Administration it is likely to decrease. The odds of getting a grant funded at the National Institutes of Health have seriously declined over the years and will no doubt get worse. Kennedy acknowledges this deep and divisive problem but gives the impression that recovering indirect costs is more important to the university, pointing out how it is the second largest source of income at Stanford.

Opposing the NIH proposal to reduce full indirect cost payments on its awards, Kennedy concludes by stating, "What is not acceptable is an arbitrary action on one piece of the government that attempts to divide the academic community." I hope he would also agree that it is not acceptable for one part of universities (administrations) to engage in arbitrary actions that divide the academic community.

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Notes

1. For an unminced historical review, see S. Lang, "A history of bureaucratic encroachment," in *Comments on Circular A-21* (Society of Research Administrators, Santa Monica, Calif., 1984).

Kennedy presents one view of the economic problems now facing American science. His view may, however, be construed as self-serving, as Stanford University is one of the major recipients of indirect cost reimbursements in the country. It is true that the three problems he lists are controversial and a source of continuing debate within the

scientific community at the level of the federal government, the universities, and laboratory investigators; but there are certainly other interpretations of their causes and consequences.

Many university laboratories have generally not updated their scientific instrumentation in the last two decades. The reason, however, is not lack of research funds, but rather the expansion of the scientific manpower pool; that is, the overproduction of Ph.D.'s and M.D.'s by the academic institutions and the natural tendency to employ as many investigators as possible at the expense of replacing existing equipment with more recent models.

The purported breakdown of the "peer review" system is highly exaggerated. Large scientific projects, such as particle accelerators, manned spaceflight centers, and national research laboratories, have always been awarded on a political rather than a scientific basis. The problem is one of visibility and economic influence, not erosion of the peer review system per se. Individual grant applications are still peer reviewed.

Kennedy writes that full reimbursement of all indirect costs is essential for the maintenance of a healthy academic research environment, despite some contrary opinions from officials of the National Institutes of Health and from university scientists. As someone who spent almost 9 years administrating grants and contracts for NIH, I view indirect costs somewhat differently. If there is a problem, it stems primarily from the lack of controls on indirect costs. Expenses allocated to indirect costs by a research institution must be legitimate ones incurred in the conduct of research, such as for energy to heat a laboratory building, journals for the library, or the physical security of facilities. However, there are no external controls over the level of expenditures for such items purchased or provided by the institution similar to the controls imposed by the peer review process on expenditures requested in research grant applications. The financial auditors who review indirect costs make no value judgments about the necessity for particular items; consequently, the situation becomes one in which the university administrators set their own indirect cost rate by the arbitrary level of their expenditures. The government then provides full reimbursement for these indirect costs. This is somewhat analogous to the fox guarding the chicken coop, but it is a fiscal problem only in the sense that all resources are finite.

If there is a problem in the support of American science at present, its basis will be found in the oversupply of scientists, not in obsolete equipment, erosion of the peer review system, or escalating indirect costs.

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Sessions' first point (reiterated in his fourth) is that the government should not permit use charges or depreciation on donated equipment or buildings because the donors have already received tax credits or deductions for making the donation. At present it is the government's policy to pay the full cost of research; that is why it allows depreciation and use charges on facilities and equipment. The charitable deduction and other tax incentives for giving serve the broader social purpose of strengthening such institutions. Sessions' statement about these two purposes is confused: he says that, if the university uses general funds to purchase equipment, then it is all right to recover through indirect costs; but it somehow becomes wrong if the equipment was given specifically for that purpose—even though donors have received tax benefits in both cases.

Sessions' second point must contain the assumption that all research costs are variable; in fact, some are fixed. The latter cannot be reduced as project volume decreases, and it is these that change the rate, when they are spread over a reduced volume of activity.

As to his third point: it is the sad truth that government regulatory requirements are burdensome. That is why my institution and others have forgone some indirect cost recovery in return for cost-saving reductions in such requirements. I think we have no disagreement here.

Last, Sessions argues that we need more support of research. In my article, I emphasized that university leadership must recognize this as a first priority, and I gave an account of our successful efforts to accomplish exactly that in the 1985 budget. I have worked overtime, as have other university presidents and many investigators, to see to it that the costs of research get favorable treatment in the federal budget process. I did so because I believe that *all* research costs serve a legitimate public purpose. To charge me with contributing to the division between investigators and administrators, instead of trying to mitigate it by analysis, is just not a fair reading of what I wrote, *or* of what I've done.

I disagree with Nelson's statement that "university administrators set their own indirect cost rate by the arbitrary level of their expenditures." The main burden of my analysis, in fact, was that those costs most vulnerable to arbitrary "setting" have been the more slowly rising component of indirect cost. Neither can I agree with his remarkable hypothesis that the reason we haven't updated scientific instrumentation is that there are too many scientists! But as to his charge that my view "may, however, be construed as self-serving . . ."—that, alas, I cannot help.

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Federal Project Funding

As reported in Constance Holden's briefing (News and Comment, 8 Mar., p. 1183), the National Science Board included the University of Connecticut in a list of institutions it accused in a recent report of bypassing a merit-based peer review process in obtaining federal project funding. I believe the National Science Board was in error in this judgment.

The University of Connecticut Health Center was designated as one of two sites nationally for a research and training center for pediatric rehabilitation. However, the University of Connecticut made no approach whatsoever to Congress for this designation, nor was anyone from the university involved in either the language or the process of the supplemental appropriation which provided funding for this topic in the budget of the National Institute for Handicapped Research (NIHR).

The supplemental appropriation legislation did not divert funding from existing research and training programs. All funds awarded to the university under this program have been in accordance with project plans approved by NIHR. Any renewal funding will continue to be peer reviewed by NIHR.

I am a strong advocate of merit-based peer review for any and all higher education projects seeking federal funding, and I am chagrined by the misinterpretation in the National Science Board's report, which, in my view, unfairly impugns the credibility of the University of Connecticut's position on this issue.

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