Policy Forum

Subsidizing Research: Role of the University

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THE LATEST FLARE-UP IN THE EVER-SIMMERING CONTROversy over indirect cost reimbursement began with a notice in the *Federal Register* on 12 February that the Office of Management and Budget (OMB) intended to revise Circular A-21 to cap allowable recovery for the costs of administering university research. Predictably, cries of alarm and outrage arose from university administrations and their advocates, and they were countered by other voices, including some from their own faculties.

If there were nothing more at stake in a rules change than a few million dollars per university, or a small percentage of the National Institutes of Health budget, the indirect cost issue could not possibly generate so much steam. In fact, more is at stake, and understanding what it is can help place this issue in its proper context, that of education and science policy.

As an analogy we can think of the subject of indirect costs as the academic equivalent of the income tax. Like the income tax, it is for most people a crashing bore; however, a small number of professionals find indirect costs endlessly fascinating. Yet another group is convinced some perfect system will be fair to all and will lay all controversy to rest. No two members of the latter group agree on what that system might be. Finally, like the income tax, the rules that govern indirect cost recovery are desperately important to a great many people and institutions. They are also elaborate, detailed, technical, and ambiguous. In both cases, the auditing of returns by the government is likely to be incomplete, leaving room for suspicion that somebody is getting away with something.

In neither case do all of the above characteristics account for the fervor with which battles over change and reform are fought. To explain that phenomenon, we must see both the Internal Revenue code and Circular A-21 for what they are at their most fundamental level; namely, a set of rules that tell us who, at any given moment, is subsidizing whom.

Throughout history, hardly any form of intellectual work, including science, has been able to sustain itself financially without some kind of subsidy for the worker. Until the end of the 18th century, subsidies were typically provided by wealthy patrons to individuals they favored. This system, however, could not compete with the more powerful forms of social organization, government, and industrial concerns that developed in the 19th century. The great American philanthropists of the late 19th century were creators of institutions, such as libraries, museums, and universities, far more than they were patrons of individuals. As a result, and because of the imperatives of modern science itself, institutions have become an inextricable part of the fabric of science. With minor exceptions, modern science is hardly conceivable outside the walls of an

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The Case for a Return To Fixed Indirect Costs

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THE CURRENT TURMOIL ABOUT INDIRECT COST LEVELS FOR National Institutes of Health (NIH) research grants must be settled so that over the years the maximum research will be accomplished for the funds expended. I contend that this goal can best be reached by a return to fixed indirect costs for NIH research grants. This return is necessary to resolve a short-term funding crisis and to achieve a better long-term program. My perceptions are based on my many years as a principal investigator, on my experience as founder and director of a molecular biology institute, and on my current service with public affairs committees of professional societies.

Because of the present funding crisis, research highly recommended by peer groups is not being funded. As a result, needed research accomplishments are lost, trained scientists are underutilized, and many of our best students are discouraged from seeking science careers. The increase in indirect costs is a prominent factor in the decreased support of high-priority research grants. Over the past two decades, indirect costs have risen from an average of 20.5% to about 47% of direct costs on research grants, and for some institutions the rate is near 100%. Both direct and indirect costs come from the same total appropriations. The recent Office of Management and Budget proposal to move toward a lowered and fixed indirect cost deserves strong support from the research community, *provided that* the funds saved are used to support direct costs of biomedical research.

Yielding to the increasing pressure for full reimbursement of all research costs has been a prominent factor in shrinking the funds available for investigators. The case for full reimbursement overlooks the responsibility of universities to uncover new knowledge. Universities should help provide the resources necessary for basic research initiated by their faculty and supported by federal grants. If the cost burden of the proposed research appears too great, universities and research laboratories are free to decline research grants or to ask researchers to decrease their funding requests.

A policy of full reimbursement of research costs has led to the wasteful task of attempting to define and justify all costs. This task requires a plethora of administrators, accountants, and regulators. Their support and the regulations they develop take funds and time away from investigators. For example, what has been the value of the time and effort reports for faculty and postdoctoral fellows, and how is research helped by employing people to monitor these requirements?

A short-range move to fixed indirect costs that are lower than present average indirect costs could provide much-needed funds for direct research costs. However, in the long range, the level of

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institution, usually a university, but also national laboratories and industrial concerns.

The great contemporary patron of science is, of course, the government. On a scale that dwarfs the contributions of the Medicis, Rockefellers, and Carnegies combined, the government subsidizes the conduct of science. But who is the recipient of the subsidy? The primary mechanism for the support of research is the investigator-initiated proposal that leads to the award of a grant or contract. From the investigator's perspective, the relationship is between him and his patron; that is also the view of the agency program officer.

Thus, to two parties of the transaction, it appears to be a classical act of patronage. In fact, the legal relationship is between the agency with the funds and the institution that employs the investigator. The institution makes the research possible. Not only does it provide a structure for the management of large sums of money, it gives individual investigators a group of colleagues who are essential to intellectual inquiry. In the case of a university, it also provides students as helpers and fresh minds and supplies a set of operating values to protect the research from constraining forces, including the whim of the governmental patron.

Just as there would be no science worth talking about without a steady flow of first-class people to do science, so there would be no modern science without strong, mediating institutions to house and nurture its performance. Accepting these two facts makes it impossible to hold false notions about the proper public policy governing the distribution of subsidies for scientific inquiry. It is no more intellectually respectable to argue that every dollar used to pay the cost of running an institution is a diversion from research than it is to argue that every dollar spent on running an institution ought to be attributable in some fraction to research and recoverable as overhead. The proper view is one that acknowledges the government as the main patron of scientific inquiry and that sees the researchers engaged in a system consisting of investigators and their institutions, a system that can only suffer if one temporarily profits at the expense of the other.

This view suggests a process for dealing with controversy, as well as a stance toward the issues in dispute. Representatives of all of the parties involved in the issues must be at the table when rules for the distribution of subsidies are discussed. Rules derived from a process that is viewed as illegitimate will not survive. One hopes that OMB learned that lesson from the intense reaction to its 12 February directive. The lesson teaches that university administrations, the investigator community, and the government must join in discussions if an agreement is to be legitimate. The role assumed by the National Academy of Sciences' Government-University-Industry Research Roundtable in the negotiations after the OMB demarche is exactly what is required.

Universities and their faculties are not adversaries, each trying to take money that belongs to the other. Rather, they are recipients of patronage, in the historic sense of that term, and their common and wholly legitimate goal should be to persuade their patron not to undermine the value of its patronage by misguided economizing.

indirect costs could be adjusted upward if our nation's financial priorities are reshaped and if careful consideration justifies such change.

There are other consequences of the present indirect cost funding procedures. The present variability of indirect cost rates means that research judged to be of equal quality costs much more in federal dollars to fund at some institutions than at others. Each grant approved with a high indirect cost rate inordinately decreases the possibility of other research grants being funded. Institutions should be rewarded, not penalized, for keeping their indirect costs low.

The uneven growth of indirect costs has had important but little-recognized effects on the scientific establishment. The present system favors the rich getting richer and leads to faculty-recruiting inducements based on anticipated indirect cost returns. Nationwide distribution of scientists and scientific research has been distorted. Legislators from states that do not have leading research institutions should be proponents of a fixed indirect cost rate.

Some research resources may need to be supported by other federal programs. One such need is for buildings and support facilities. A return to separately funded and peer-reviewed federal construction programs is appropriate. Some research laboratories supported modestly by foundations or other private resources might find it difficult to continue operation without other support sources. For these laboratories, a phase-in period for reduced indirect costs is warranted. But, if they are to be federally supported laboratories, other separate peer-reviewed programs should be devised for their support.

The position of university administrations in favor of the present indirect cost policies has been capably and powerfully presented over the past several years. The views of principal investigators have had no such voice. I sympathize with the continued funding needs of universities and research institutions, but meeting these needs by abuse of the research grant system is unwarranted.

Investigators usually pay insufficient attention to funding policies, but this may change. An analogy may illustrate my point. A few years ago, the California legislature welcomed the influx of tax dollars arising from inflated real estate values. The failure to correct the abuse led to the adoption of "Proposition 13" by the voters. If the abuse of indirect costs is not corrected, a similar uprising will come from principal investigators. But more importantly, investigators need the cooperation and support of university administrators. Administrators should have more concern for the faculty of their own and other institutions whose research is not being funded. Their concern for these faculty members should be expressed as strongly as the call for retention of the present indirect cost policy. This would do much to promote cooperative discussion between investigators and administrators about their common interest in achieving indirect cost savings.

In brief summary, the present indirect cost system is not working. It needs to be fixed.