BIOMEDICAL RESEARCH

NIH propose cost benefit rules in grant reforms

■ Research per dollar yardstick
■ Total new grants limited to 5,750 per year

Washington

In the face of pressure from Congress and their own grant recipients to stretch research dollars, the US National Institutes of Health (NIH) have unveiled plans to change the rules dramatically in federally funded biomedical research.

On their way out are some archaic funding traditions — such as the quaint practice of 'approving' almost all applications regardless of whether they are actually funded or not — and some more modern rituals, such as the increasingly common tendency to chop a set percentage off all grants when money gets tight. In their place, NIH will introduce more case-by-case analysis of applications, based on their costs and some measure of the research per dollar they are likely to produce, and some strict limits on grant growth.

Draft copies of the plan were distributed to science policy-makers last week, and a two-day hearing on the reorganization will be held at NIH starting on 17 December.

According to the plan, NIH propose to:

■ Begin considering the costs of each proposal, rather than its scientific merit alone. Specifically, 'indirect costs' — the overhead percentage each university takes off the top of its researchers' grants — will for the first time be considered in selecting grants for approval.

■ Restrict the growth of a grant so that it increases no faster than the actual cost of research, as determined by the Biomedical Research and Development Price Index. Between 1980 and 1989, the average cost of an NIH project grant increased 16 per cent more than the index, according to NIH statistics.

■ Adjust individual awards to maintain the total number of new grants at 5,750 a year. With a grant length of four years, that should allow for a total pool of 23,000 NIH grant recipients.

■ Abandon the practice of 'approving' 95 per cent of applications, while less than a quarter of those are actually funded. Instead, NIH plan to adopt a system where all potentially fundable applications receive a score as well as a percentile ranking. Generally, there would be a cut-off level based on the current availability of funds, and those grants with rankings above that level would be funded. But because NIH intend increasingly to consider the costs of proposals, more grants will be funded 'out of order' of their research quality ranking.

■ Make four years the average grant length. In recent years, it has lengthened to 4·3 years, with no end in sight, as researchers complained that shorter periods forced them to spend too much time writing grant applications and not enough time doing research. But longer grant periods have also meant that fewer new grants have been available in recent years, a situation that panicked the research community.

■ Stop 'downward negotiations' — the process of imposing across-the-board reductions in grants when NIH run out of money. Future cuts will be on a case-by-case basis, with the specific methods decided by each institute.

Many of the changes are intended chiefly to placate Congress. Pointing out that the cost of biomedical research has been rising faster than virtually all other economic indicators, Congress this year told NIH to regain control of the grant process by imposing a strict set of new financial constraints. The 1991 appropriations bill required NIH to report back with a plan this month.

Among the most controversial aspects of the new plan are the emphasis on indirect costs, and the case-by-case cuts when NIH find themselves overextended.

While 'downward negotiations' were the bane of many NIH-funded researchers, they were at least equally applied. Although NIH have not decided exactly how to replace the process, they are committed to discriminating between those that can safely take a large cut and those that cannot. Ideally, that will spread the cuts around as painlessly as possible. But it may also spread a good deal of confusion. "The scientific community may begin to look at downward negotiation as the good old days. At least they understood how it worked", says John Diggs, NIH deputy director for extramural research, who put the plan together.

University officials are likely to be especially concerned by the threatened reduction in the amount they can recover from their researchers' grants. Indirect costs, which pay for university construction, maintenance and incidentals, have increased by nearly 25 per cent over inflation in the past decade, nearly three times the rise in the cost of the research itself. The implication that universities are getting fat on research grants prompted Congress specifically to target indirect costs for scrutiny. Although NIH have not decided exactly how to take relative indirect cost rates into consideration when comparing applications, some discrimination appears inevitable. Because they tend to have higher cost rates (up to 80 per cent in some cases), "private institutions are going to have a real problem", notes Diggs. Universities on the coasts, where prices are high, and in climates that require considerable heating or cooling, are also likely to find themselves at a disadvantage, he says.

Another worry is the predetermined size of the research pool. Although Congress set the target of 5,750 new grants a year to placate researchers who feared that real numbers might dip far lower, NIH officials are concerned that such a target may prove restrictive. "The fear is that we will reach a plateau beyond which it will be difficult to grow", says Diggs. In the past decade, the total number of awards has increased just 12 per cent, while the number of applications has more than doubled. **Christopher Anderson**

Biologists lash back

Washington

Biologists clashed with the Washington science establishment last week, rejecting the findings of a two-year study carried out by the National Academy of Science's Institute of Medicine (IOM).

The IOM study suggest that, in the absence of real future growth in the budget of the National Institutes of Health (NIH), some money should be shifted from research to training grants (see *Nature* 347, 413; 4 October 1990). Thomas Edgington, president of the Federation of American Societies for Experimental Biology (FASEB), claimed this would cost the research community some 2,000 grants over the next ten years.

Training more biologists will only make the funding problem worse Edgington said. He cited a Princeton University report* that projects a surplus of some 1,700 biology PhD recipients a year by 2000. He also quoted a study from the *Chronicle of Higher Education* (28 March 1990), showing that while university faculty had increased by 6 per cent between 1975 and 1985, academic support personnel had increased by over 61 per cent in the same period — a decade in which the university overhead percentage of research grants also rocketed, he noted.

The IOM promptly released a statement defending its report and accusing FASEB of manipulating the numbers. Only 1,000 grants — out of the total in a decade of nearly 60,000 — would be affected, IOM said.

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* *Prospects for Faculty in the Arts and Sciences* (Princeton University Press, 1989).