NIH research grants

Battle on indirect costs continues

Washington

A PROPOSAL by the National Institutes of Health (NIH) to slice \$72 million next year from the amount they pay to universities as reimbursement for the "indirect costs" generated by federally sponsored research has touched off an acrimonious argument between NIH and the major research universities.

Indignant complaints about the proposal dominated discussion last week at a private meeting of the Association of American Universities (AAU), which represents the 50 leading universities in the United States. One participant, Stanford's president Donald Kennedy, called the proposal "a unilateral abrogation of enduring understandings" which was likely to destroy the hitherto close relations between the universities, NIH and the biomedical investigators who receive NIH funds.

The federal government and the universities have been squabbling for years about the mechanism for paying the indirect costs — such as rent, heat and administration — which universities incur as a result of carrying out federally funded research. But the latest proposal from NIH, which has been forwarded to the appropriations committees of the House of Representatives and the Senate to form part of their 1984 budget deliberations, appears to have shifted the debate into a higher gear.

In a report to the committees, NIH complain that indirect costs have been consuming an ever-greater fraction of the total funds available for grants; in 1982, for example, indirect costs accounted for 30 per cent of the funds awarded for research project grants by the Public Health Service compared with about 20 per cent in 1972.

The report describes this rate of increase as "disproportionate" and proposes a number of ways in which indirect costs could be contained. One method, apparently favoured by the institutes, is to freeze the percentage of research money that universities could claim for indirect cost reimbursement at a level equivalent to the average level applied to each institution over the past decade.

Both the proposal and the manner in which it has been brought to Congress have

infuriated AAU. Donald Kennedy told fellow presidents at last week's meeting that NIH had postponed consultation with the universities as long as possible and then issued an invitation to a meeting at three days notice, on the eve of NIH's budget reauthorization hearings in Congress. Especially because those able to attend the meeting had failed to persuade NIH to change their mind, Kennedy said that it is "misleading — indeed disingenuous" for NIH to suggest that their proposals stem from consultation with the universities.

More worrying, from AAU's point of view, is NIH's belief that the rise in the indirect cost fraction of their university research spending is somehow disproportionate. The universities argue that they spend real dollars on indirect research costs and are reimbursed only after going through exhaustive federal accounting procedures. There are, AAU claimed in a recent letter to NIH, "perfectly good explanations" for the increases in indirect cost rates.

One reason, the letter says, is that the nature of biomedical research has changed, with more equipment sharing, larger and more complex research teams and therefore more pooled costs attributable to indirect costs. In addition, direct costs have not kept pace with the cost of conducting research while many items in the indirect cost category, such as energy, have risen faster than the general rate of inflation. Meanwhile, universities have become more efficient in identifying indirect costs attributable to research.

According to AAU, the NIH scheme for containing rising indirect costs would unfairly penalize some universities. Dr Kennedy argues that some state universities claim lower indirect cost reimbursements because they cannot keep the money themselves but send it on to the state government. Such universities have therefore had little incentive to justify realistic overhead rates. The NIH policy, therefore, would be hardest on those universities (mainly private) that had kept careful track of indirect costs and done the accounting necessary to allocate them.

The universities intend to ensure that NIH's proposal is stopped in Congress, as was a proposal last year to impose a 10 per cent across-the-board cut. But for NIH, the arguments for pressing ahead with their attack on indirect costs are compelling. The institutes are already having to pare many 1984 programmes to find the money Congress wants so that the number of investigator-initiated research grants can be kept at 5,000, not reduced to 3,700 as proposed by the President in January. Indirect costs offer a relatively painless way of squeezing out a portion of the extra \$140 million needed for this purpose.

Peter David

US accelerators

Time to choose a giant

Baltimore

EVEN as particle physicists were last week taking up positions for the impending skirmish over the choice of the next large accelerator project at the American Physical Society meeting here, they were being dressed down by White House science adviser George Keyworth. Using unusually sharp language, Keyworth complained that "during the years American physicists have squandered on a pork-barrel squabble, the Europeans have moved boldly ahead".

There are now four large accelerator projects under consideration, and a meeting of the High Energy Physics Advisory Panel (HEPAP) has been arranged for June to recommend one of them to the Department of Energy. Keyworth urged last week that the time had come to choose "the best tools", not to dissipate resources by parcelling them out in response to "popular demand" and that the physics community should commit itself to the best proposal "and stick with it".

In a thinly veiled reference to Brookhaven's foundering ISABELLE project (now renamed CBA), on which the Department of Energy has already spent

The "desertron"

Chicago

THE "desertron", proposed last summer by Leon Lederman and Robert Wilson, would use relatively weak 2.5 tesla superconducting magnets in an enormous 150-km-circumference ring. At 3.5 tesla, the magnets could use stable and easily-machined iron cores to shape the field, rather than the coils themselves as in the more powerful 4.5 tesla Fermilab magnets.

Wilson argued at a meeting last summer that the lower cost of the magnets would more than offset the cost of the extra real estate, especially if the accelerator were built in the desert. The simpler magnets would also require less maintenance, permitting them to be buried permanently in narrow pipes where they could be maintained and aligned by robots.

At a meeting attended by 40 accelerator physicists last month at Cornell University, some of Wilson's assumptions were questioned. The group looked into two other designs for obtaining a 20-TeV-per-beam collider, one using 5 tesla magnets and the other 8 tesla, and concluded that they could be competitive economically with Wilson's original "desertron". Both would use smaller rings than the desertron.

"The cost uncertainties are large enough that all three designs are in the running", said James Bjorken of Fermilab. "These studies are still very preliminary."

Larry Arbeiter

Correspondent's coup

DR Robert Walgate, European Correspondent of *Nature* since 1980 and one of the journal's staff for the past five years, has been awarded one of this year's three Glaxo fellowships for science writing awarded by the British Association of Science Writers. The award, which is worth £1,000, is for Walgate's 20-page "Science in France" contribution to *Nature* published in May last year. □

Candidates for the US "accelerator of the 90s"

Accelerator	Institute	Collisions	Energy	Comments
CESR II	Cornell	e ⁺ /e ⁻	100 GeV	Would compete with LEP at higher luminosity
CBA (ISABELLE)	Brookhaven	p/p	800 GeV	To achieve very high luminosity for probe of rare events
Dedicated collider	Fermilab	p/p, e/p	4 TeV	To extend energy domain before the end of the decade to initiate e/p collisions
"Desertron"	?	p/p, p/p	20 TeV	Vastly to extend energy domain

\$150 million, Keyworth said that "this has to be a time for statesmanship, not for pet projects". According to many particle physicists, however, the Department of Energy may be locked into ISABELLE by the need to save face even though the accelerator would be obsolete before it could be completed.

The four projects among which HEPAP will choose were described last week by Leon Lederman, director of Fermilab (see table). He said that the Cornell proposal (CESR II) would be a duplication of LEP, the electron-positron collider being built at CERN in Europe. The machine is not regarded as a major contender, while Lederman also noted that one option for HEPAP is "none of the above".

According to Lederman, there is nevertheless a strong case for going ahead quickly with at least one of these higher-energy machines. He said this was now accepted not only by experimentalists like himself, and one of his slides bore the legend **IN THE PAST FIVE YEARS, THE OVERCONFIDENCE OF THEORISTS HAS GIVEN WAY TO PUBLIC CON-**

FESSIONS* OF A NEED FOR EXPERIMENTAL GUIDANCE. The accompanying footnote read **EXCEPT GLASHOW.**

But now even Glashow, Lederman said, has tacitly admitted the need for more experimentation in his somewhat whimsical "oilatron" proposal (see *Nature* 3 March, p.6). Lederman said that Glashow's "cockamamie scheme" to build an accelerator to search for oil deposits was "just a disguise — he's not interested in finding oil, he just wants the data".

The proposal that Keyworth is said to favour — and his remarks last week backed up this view — is the "desertron", first discussed last summer. It would use "low-tech" magnets and an enormous ring which, presumably, could only be built in the desert in the south-western United States. This machine, with its energy of 20 TeV per beam, would put the US capability head and shoulders above the "European peril", as Lederman called it, even after CERN's "LEP-prime" (a proton-antiproton collider at 6–10 TeV per beam) is completed, perhaps in 1993.

Stephen Budiansky

US nuclear physics

Argonne's loss

Meanwhile, Argonne National Laboratory lost the first round in its bid to build a new 4 GeV electron accelerator last week when a panel of the Nuclear Science Advisory Committee (NSAC) endorsed a competing proposal submitted by a consortium of 20 south-eastern universities (see *Nature* 17 March, p.204). Although a final decision need not be made until next January, when the budget for 1984–85 is drawn up, NSAC's recommendations have usually carried weight.

The panel's recommendation came as an especially severe blow to Argonne which had been hanging its hopes on the electron accelerator in its effort to regain lost prestige in basic nuclear physics. Argonne director Walter Massey appeared before NSAC last Friday to offer a polite but vigorous dissent from the panel's report.

Massey argued that on purely technical grounds of cost effectiveness, support facilities and staff expertise, Argonne had the edge on the Southeastern Universities Research Association (SURA). And he took exception to the emphasis the panel appeared to place on SURA's pledge to create 35 new tenured faculty positions in nuclear physics if its proposal were approved. Massey noted that this was a policy matter, not a technical matter, and further that "if this is to be a determining factor, then I am convinced that we, in the Midwest, can also respond" with university faculty positions. He said soundings of the University of Chicago and the University of Illinois were favourable.

Massey asked the committee to forward the report to the Department of Energy (DoE) without an endorsement, so that "the institutional and policy questions can be discussed and debated within the proper framework, which has to be at the Department level". Unstated was the likelihood that Argonne may have more influence at that level than SURA.

The SURA proposal calls for an electron accelerator with an energy range of 0.5–4 GeV, to be built in Newport News, Virginia. The panel noted the flexibility that SURA's design offers in being able to expand to 6 GeV (while admitting that there is as yet no justification for going to these higher energies) and SURA's more "conservative" design that some panel members felt was less susceptible to stability problems than Argonne's.

But the panel at the same time expressed some reservations about the SURA proposal, most notably the remoteness of the proposed site from a major university and from an international airport.

NSAC appears ready to forward the panel's report, but may raise some questions in a letter to accompany it. The final outcome is not likely to be settled until DoE makes its budget recommendations, months from now.

Stephen Budiansky

Trust counts bird casualties

THE British Trust for Ornithology (BTO) this week celebrates 50 years of monitoring bird populations in the British Isles. The trust's surveys, which are widely respected, are based on information collated from reports sent in by volunteers all over Britain. That they have gained scientific respectability makes a pleasing illustration of the very useful role that amateurs can still play in serious research.

At the trust's headquarters in Tring, Hertfordshire, a small professional staff funded largely by the Nature Conservancy Council coordinates the two main threads of BTO's work. These are the Common Birds Census, which monitors population levels on the basis of amateurs' sightings, and the National Ringing Scheme, which gathers information on mortality and migration patterns. In addition the trust publishes occasional detailed surveys on particular species, and has undertaken studies for the EEC and for BP Petroleum Development Ltd on the effects of oil spills on seabirds. Prompt information from BTO on the effects on bird

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REASONS

W.S. Paton/RSPB

BTO figures showed that massive numbers of razorbills, puffins and guillemots were killed off the east coast of Britain in storms during February. populations of the severe winter of 1981–82 was influential in bringing about a temporary ban on the shooting of wildfowl while populations recovered. The trust gains significant revenues from sales of its various publications, and is now seeking sponsorship for a Winter Atlas of distribution of birds in Britain.

Tim Beardsley