Corporate largesse

More tax breaks?

A tax incentive measure designed to stimulate corporate support for scientific research in US universities has taken a first step towards congressional approval. A comprehensive tax bill sponsored by Representative James M. Shannon has passed a House Ways and Means Committee panel on its way to the full committee.

Representatives from major universities, including the presidents of the Massachusetts Institute of Technology and Stanford, have testified at House hearings along with prominent industry members in support of the legislation. They hope that the Shannon bill will offset the expected losses from the Reagan budget by attracting more than \$500 million to university research next year.

Three sections of the tax incentive plan would specifically benefit universities:

- A 25 per cent tax credit for contributions from corporations to a "research reserve fund" that would guarantee against shortfalls in research funding. This money, which could be up to 5 per cent of a corporation's income, can remain in the fund for four years drawing interest, while the taxpayer receives more credit for additional money added.
- A 25 per cent tax credit for money contributed to any form of research and development at universities or private laboratories if the total contribution exceeds the average amount given by that corporation over the previous three years.
- Tax deductions to corporations giving charitable contributions of scientific or educational equipment, based on the market value rather than production cost.

The "research reserve fund" would actually give businesses a larger tax credit because a contributing corporation would receive an additional deduction of up to 46 per cent when its money was transferred from the fund to a specific university.

Opposition to the bill comes from those who believe it would entail a major loss of federal revenue (around \$207 million), but the White House has indicated in informal discussion with House members that it would definitely consider supporting it.

Besides bringing more corporate dollars to American academic research, which at present makes up less than 5 per cent of the total given to universities, supporters of the bill say it would foster closer ties between university scientists and applied research.

Passage of the bill may, however, be hindered by the lack of a unified academic voice. Some smaller universities feel that it will hurt them because most money will be directed towards the larger institutions. But insiders say the bill has a bright future because Senate Finance Committee chairman, Senator Robert Dole, has expressed great interest in its passage.

Michael D. Stein

Yugoslavian university unrest

Cuts feared

The University of Pristina, the third largest university in Yugoslavia, may be cut to about one fifth its present size following the political unrest of the last three months, which began in the university.

Pristina is the capital of the autonomous province of Kosovo which forms part of the Republic of Serbia but enjoys considerable local self-government. It ranks as one of the less developed areas of Yugoslavia, and hence, over the last few years, has benefited considerably from federal development schemes. Under such a scheme, the University of Pristina has grown during the last decade to a student body of almost 50,000, instead of the 10,000 originally planned, an expansion deemed necessary by Belgrade for "the overall development of Kosovo and the advancement of national equality". (The population of Kosovo is predominantly Albanian).

However, the growth in numbers was not matched by a commensurate expansion of student facilities, and on 11 March there was a small demonstration of students demanding improvements in hostel accommodation and canteen food. The local and university authorities seem to have over-reacted when restoring order and almost inevitably, the demonstrations escalated and became more political in nature. By the end of April, demonstrators were demanding outright secession of Kosovo from the federation and even a link-up with Albania; cultural and scientific exchange programmes between Yugoslavia and Albania were subsequently cut.

Although by now the demonstrations had spread far beyond the student body, the university was still regarded as their focus. Accordingly, on 18 May, Pazajit Nusi, vice president of Kosovo Assembly's executive council, and Dr Imer Jaka, Secretary for Education, Science and Culture, resigned. The same evening there was another on-campus demonstration, and the next day the executive council ordered the university and all other institutions of higher education in Kosovo to close for the vacation.

The university party organization, in the meantime, had set up its own action committee. According to one report more than 500 members of the philosophical faculty have been expelled from the Party, and four persons suspected of organizing the demonstrations have been expelled from the university. Also, various abuses in the university structure have been uncovered. At the same time, the action committee was highly critical of the Belgrade authorities and media for exaggerating the situation, and was particularly critical of Milan Daljevic, Executive Secretary of the (Federal) Central Committee Praesidium, who had

spoken of the University of Pristina as "a fortress of nationalism" and had alleged that not a single professor had made any political statement condemning "enemy actions". An official protest has been sent to the Central Committee Praesidium.

To offset the incomplete, and often incorrect, media coverage, the action committee called for a complete dossier on the unrest to be prepared.

With so few jobs available for existing graduates and 55,000 young people now receiving higher education in Kosovo, the suggestions from Belgrade that the university be cut back to its original 10,000 places and funding switched to other educational needs, poses a real threat to the University of Pristina. So far the action committee has made no explicit reference to the suggestion, but has merely suggested that future admissions be tailored more closely to "social needs".

Vera Rich

US security worries

No compromise

Washington

In a move reflecting deep-seated disagreement over how far national security arguments should influence the procedures of basic research, scientists on two advisory committees to the National Science Foundation (NSF) have criticized proposals by the American Council on Education (ACE) that papers containing potentially sensitive results in computer research be voluntarily submitted to national security authorities for review before publication.

The proposal was made by a study group on public cryptography set up by ACE at the suggestion of the National Security Agency (NSA). This followed a series of incidents in which NSA had sought to restrain the dissemination of unclassified data on the grounds that they could threaten national security by assisting the development of techniques to make and break codes.

NSA already accepts in principle the proposals of the study group, and has outlined to several professional organizations and their scientific journals the group's conclusions under which suggestions for changes, deletions or publication delays would be made on manuscripts submitted to the agency. ACE announced last month that "the intelligence and academic communities have agreed on guidelines for voluntary review before publication of computer cryptography articles". However, members of the mathematical and computer sciences advisory committee of NSF have said that voluntary submission to pre-publication review represents a "direct and serious threat to NSF's charter of furthering basic scientific research". A report, prepared by a subcommittee under the chairmanship of Dr John Guttag, says that the conclusions of the ACE study

group "reflect a view of 'national interest' and 'national security' that is derived largely from concerns related to the government's need for military and diplomatic security". Other factors which it says should be considered include the competitive needs of the US information processing industry, and the need to protect individuals from unwarranted invasions of privacy.

The two advisory committees decided last autumn to investigate the role of NSF in supporting cryptological research, following an incident in which a computer research scientist who, having applied to NSF for a grant, was told that NSA was interested in supporting his research — even though he had not approached the security agency. In general, the committees endorse the policy outlined at the time by NSF deputy director Dr Donald Langenberg.

However, the committee's report takes issue with Dr Langenberg's remark that imposing more stringent reporting requirements on scientists should be viewed "simply as a change in administrative practice". Rather, it says, any change in current practice should be considered a significant shift in policy which could represent "serious interference with the conduct of research".

The committees also object to the letter being sent to those who are awarded cryptography grants notifying them that they should seek prior review by NSF of any results which might have national security implications. The report believes this would adversely affect research and proposes instead that a description of the research results should be forwarded to NSF or to any other government agency designated by the foundation — at the same time as its dissemination to other scientists or publication.

The NSF report points out that NSA has proposed spending between two and three million dollars a year on unclassified research — "We doubt that this much money could be spent productively supporting academic work on cryptography and cryptanalysis, and imagine that NSA will end up funding and taking an active interest in a relatively wide variety of research projects". And it warns of the potential dangers of NSA becoming the principal source of funding for cryptology research as the Defense Advanced Research Projects Agency has done in fields such as artificial intelligence and systems research.

The Association of Computing Machinery (ACM) is also concerned over moves in Congress to give the federal government greater powers to control the publication of scientific or technical data. In particular, ACM has criticized a bill introduced by Representative Charles E. Bennett of Florida which would extend existing controls on "militarily critical" technologies to cover not only hardware, but any related technical information.

Dr Peter Denning, the president of ACM, feels that the bill would extend to many areas of research the type of "born classified" restrictions now applied to nuclear research under the terms of the Atomic Energy Act, and used as the basis for the (unsuccessful) prosecution last year of the *Progressive* magazine for publishing details of how a hydrogen bomb works.

The Reagan administration's attitude to this whole area is uncertain. Mr Lawrence Brady, nominated to head the Commerce Department's office responsible for export controls, promised a Senate committee last month that a new East-West trade policy, expected from the White House in a few weeks, would include rigorous new criteria for screening critical technology.

Mr Brady's appointment, however, has worried representatives of several multinational companies who feel that his zeal in restricting high technology exports to the Soviet Union may prove costly to them. The Administration is trying to define an acceptable compromise between the high priority it has given "national security" arguments, and the freedom being demanded by both technology exporters and the academic community. The sharp division between the ACE study and the NSF advisory committee indicates that such a compromise may still be far away.

David Dickson

UK agricultural research

Change at the top

The recent appointment of two chief scientists to the British Ministry of Agriculture, Fisheries and Food is expected to increase the ministry's influence on research supported by the Agricultural Research Council. But there is to be no formal change in the relationship; this has been ruled out by the Secretary of State for Agriculture, together with the possibility that more money should be transferred from the council to the ministry for spending on commissioned research.

These developments help to clarify more than a year's uncertainty about the future relationship between the two organizations. After the House of Commons Public Accounts Committee recommended in July 1979 that the ministry should have greater control over the council's research, a committee under the chairmanship of Sir Brian Hayes, permanent secretary at the ministry, was set up to decide what should be done.

One of its conclusions was that the Rothschild principle, whereby almost half of the council's research is commissioned by the ministry, is to remain intact. Another was that the ministry could exert more influence if it coordinated its own science policy more effectively. To that end, the former chief scientist, Professor B. G. Weitz, has been replaced by two chief scientists, Professor Frank Raymond for agriculture and horticulture and Dr George

French to make Arabsat

The French aerospace firm la Société Nationale Industrielle Aérospatiale (SNIA) has won the coveted contract for "Arabsat" — a clutch of three communications satellites with an option on a fourth, for the Middle East — in competition with British Aerospace and the Hughes Corporation. But hidden behind SNIA is Ford Aerospace, which will get 55 per cent of the \$134.3 million deal. Until recently Ford was under an Arab boycott, and the company clearly thought it politic to work with a French partner, French-Arab friendship having been so strong under President Giscard d'Estaing.

British Aerospace are understandably downhearted. The firm has so far sold satellite systems only to the European Space Agency (ESA), and it saw Arabsat as a potential breakthrough into new markets.

But British Aerospace still have orders for seven satellites worth £100 million, which will keep them busy until 1985. The company is building five communications satellites for ESA, each capable of carrying 12,500 telephone conversations and two television channels. These are bigger than the Arabsats which will be designed for 8,000 telephone lines. British Aerospace are also building two maritime "Marecs" satellites for ESA, the first due to be launched by Ariane in October.

Meanwhile SNIA is crowing just as British Aerospace would have done if it had won Arabsat. It is the first time a French aerospace firm has won the place of prime contractor for a foreign satellite system. SNIA now have their eye on Australia, Columbia, Mexico and Brazil.

Robert Walgate

Elton for fisheries and food.

The idea is that two chief scientists will enable the ministry to make better use of the Agricultural Development and Advisory Service (ADAS), which accounts for almost half of the ministry's staff and advises farmers and officials on technical aspects of agricultural and horticultural practice. Professor Raymond will report to ADAS and formulate an appropriate policy for research. Thus the influence of ADAS within the ministry will also be enhanced. Dr Elton will concentrate on fisheries and food research. Both chief scientists will sit on the Agricultural Research Council.

Precisely how the new arrangements will affect the council remains to be seen. But the outcome contrasts sharply with the situation for medical research: last October, the Medical Research Council won back most of the money transferred to the Department of Health, so doing away with the Rothschild principle.

Judy Redfearn