NSF budget for 1983

Spending lags behind inflation

Washington

With so much of the federal budget still in doubt for the fiscal year that started in October, the National Science Foundation (NSF) considers itself fortunate that both houses of Congress have approved an appropriation bill, despite their differences, and sent a recommendation to the President which he signed before the end of the old fiscal year.

Unfortunately, authorizing legislation — which spells out how the money should be spent — had been passed only by the House of Representatives, while because of a disagreement over who should look after NSF, two different Senate committees have worked up two different versions of NSF's authorization for fiscal year 1983. If the "lame-duck" Congress that returns later this month does not repair this situation, NSF may have to operate during the remainder of the fiscal year without detailed guidance — as it did last year.

The final amount appropriated was \$1,092 million, a little more than the President's request of \$1,078 million, but still close to the levels of the previous two years of \$1,003 and \$1,036 million respectively. With inflation, this means a net decrease.

The bulk of the money, \$1,060 million, will go to NSF's research and related activities. This includes \$14 million in funds taken out of other programmes which NSF can spend at its discretion.

Pre-college science education programmes, which the Administration tried to "zero" (a common verb in budget director David Stockman's vocabulary) survived with \$15 million. The total NSF science education budget will be \$30 million, the other \$15 million going to education fellowships requested by the Administration. The House of Representatives Appropriations Committee, more sensitive to the national "crisis" in science teaching, wanted \$25 million spent on pre-college education, and the Senate put in none: so they compromised.

The behavioural and social sciences were less successful in their attempts to resist Administration cutbacks. In 1982 the Administration tried to cut funds for these fields, but the social scientists fought back in Congress, and some of the money was restored. This year, the Administration requested \$36.6 million — and presumably that is what will be spent by NSF — but the funding is still below the 1980 level of \$47.9 million.

Among other decisions, both appropriations committees required that NSF should obtain their approval before spending money on the new ocean drilling vessel, *Glomar Explorer*. The conversion of the Central Intelligence Agency's vessel to a research ship has been very controversial and the committees wanted to see the results of the latest engineering studies. The \$14 million requested to operate the existing *Glomar Challenger* was reduced to \$12 million.

In September, just as researchers

planning to go to Antarctica for the summer season were getting ready, the Senate Appropriations Committee cut the US Antarctic programme's \$86.4 million budget request by \$15.3 million. This reduction would have cut the season's scientific programme by 60 to 70 per cent. In the end, only \$4 million was taken from the programme, leaving \$73.4 million for running costs and \$9 million for science. The cut will delay some construction planned for the base at McMurdo and mean later relief for the wintrring-over parties in August 1983.

International programmes at NSF continue their recent decline, from \$13.7 million in fiscal year 1980 to \$9.1 million in fiscal year 1983. The foundation has circumvented the Administration's and Congress's dislike of international science by funding international scientific travel out of the regular research funds. But because it puts international travel in competition with so many other things, it may accelerate the well-documented trend of declining US scientific travel abroad and fewer promising young US scientists taking fellowships overseas. **Deborah Shapley**

Research on ageing

US physicians come to life

Washington

Research on ageing has received some welcome attention in past weeks. First there was a meeting about recent research findings held at Rockefeller University, New York and sponsored by FIBER, the Fund for Investigative Biomedical Research, a relatively new private organization sponsored by medical philanthropist Mary Lasker and others. Then, in late October, the Institute of Medicine (IOM) devoted a day of its annual meeting to ageing research and the challenge to the US medical systems of the growing proportion of old people in the population (see *Nature* 26 August, p.779, and 2 September, p.2).

Both meetings were rich in suggestions from researchers in other fields for possible lines of inquiry into the mechanisms of ageing and into ways of prolonging cellular life or at least retarding decay. For example, at the FIBER meeting, Dr Allen R. Goldstein, chairman of the biochemistry department at the George Washington University School of Medical and Health Sciences, described the progress that has been made recently in understanding of the thymus: some recent work suggests that thymosin, which has been used to restore the immune response in cancer patients treated with chemotherapy, could also boost the immune response in older individuals. Joan Smith-Sonneborn of the University of Wyoming, a zoologist, described how paramecia can repair their own DNA through photoreactivation, and thus live a little longer.

Professor James Williamson, of the

department of geriatrics at the University of Edinburgh, talked about the social and financial problems posed by the large numbers of elderly people that will survive later in the century. Professor Williamson runs a geriatric service which consists of an interdisciplinary team of doctors and nurses. Patients referred to the service are visited at home within a day; only 30 per cent of them have to go to hospital and then usually for only a short time, or for regular short visits to give relief to their families. Such a service can reduce the number of old people in hospital geriatric wards by as much as 50 per cent.

A doctor from Los Angeles said that such a system would be impossible there, but Paul Beeson, editor of the American Geriatric Society's journal and formerly chairman of the department of medicine at Yale University medical school, disagreed. He said that most US doctors had their ideas of medicine shaped by the 1950s and 1960s, when funds were growing for biomedical research and specialties that could bring spectacular results were most sought after. Several leaders of US medicine have attacked the notion of geriatric medicine as not being medicine at all, he said, because it aims only to help people — and their families — and is more a social service than an investigative science.

Recommendations about how US medicine should address the problem of the nation's ageing population may emerge from a study that the Institute of Medicine and the National Academy of Sciences have set up and which is due to be completed next year. **Deborah Shapley**

Slaughter steps down

John B. Slaughter, director of the National Science Foundation, stepped down on 1 November in accordance with his decision several months ago to become chancellor of the University of Maryland College Park Campus. Since the Administration has not yet decided on a successor, Donald N. Langenberg, NSF's deputy director, is to become acting director of the foundation. Langenberg is likely to be a leading candidate for the position of director because of his extensive experience in various posts at the foundation.

Deborah Shapley