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Fine words

US physics researchers stand to benefit from increased funding, announced in the President's latest budget — but haven't we been here before?

On 5 February, President George Bush presented his budget request to Congress for the fiscal year 2008. For physics, it's good news, with a substantial increase in funding for three agencies in particular. But the same was true of the FY2007 budget request — funding that, four months into that fiscal year, has not yet been delivered, and, it seems, will not be delivered in its entirety after all. So is there any reason to be optimistic about the latest budget request?

The Bush Administration aims to eliminate the country's overall budget deficit by 2012, but without increasing taxes. That means some tough choices on spending. Amid so much talk of "fiscal responsibility" and "spending discipline", and the continuing expansion of funds for defence, it might seem unlikely that physics research should be enjoying a boon. But under the American Competitiveness Initiative (ACI), announced in the President's 2006 State of the Union address, three agencies — the National Science Foundation, the Department of Energy Office of Science and the National Institute of Standards and Technology — are set to double their funding over the next ten years.

According to the FY2008 request, those agencies would enjoy healthy increases of 7% or more with respect to the FY2007 request (in which they had already been granted a funding boost). And there's the rub: the appropriations bills to grant that funding for 2007 never made it through Congress. The mid-term elections of November 2006, in which the Republicans lost control of Congress to the Democrats, and the continued dominance of US politics by the Iraq war sufficiently distracted parliamentarians that only two of the 11 appropriations bills (on defence and homeland security) were passed by both houses before FY2007 began in October last year.

With no new allocation agreed, the agencies have been obliged to operate under a 'continuing resolution', meaning a continuation of FY2006 funding levels into FY2007 — disappointing when so much more had been offered, but also threatening longer-term damage. Fermilab was set to lay off all but essential safety and security staff for a month, Brookhaven's Relativistic Heavy Ion Collider was set to abandon running in 2007, and cuts in spending on ITER, the International Thermonuclear Experimental Reactor, threatened a loss of staff, expertise and valuable time that might never have been recovered. Fortunately, at the end of January, there was relief. The House passed a 'joint funding resolution' — essentially at FY2006 levels, but granting additional funds for the three agencies identified in the ACI. The resolution was awaiting Senate approval as *Nature Physics* went to press.

The joint resolution is a pragmatic decision taken by the new Democratic leaders of Congress, to tidy up the mess of FY2007 and move on to sorting out FY2008. Although the NSF, DOE and NIST are still set to receive significant raises under this provision, for the DOE and NIST they fall short of the original request, and out of line with the ACI. If the agencies' funding is to be brought back on track, to achieve that doubling in a decade, even higher raises will be needed in future, and, although there is strong bipartisan support for the ACI, it is doubtful that Congress will deliver.

The joint resolution is also remarkable for its lack of earmarks. Earmarking describes the setting aside of funds within an appropriation for special-interest projects; legislators may slot such projects into the language of a bill without them being explicitly discussed or agreed on the congressional floor. The process of earmarking has become a point of contention in the already tortuous process of appropriations. By 1994, a year in which 4,126 earmarks were recorded by the Congressional Research Service, there were already arguments and calls to curtail the practice (*Nature* **371,** 273; 2004). A decade of inaction later, the number of earmarks had rocketed, reaching 12,852 in 2006. In his latest budget address, President Bush called for earmark reform, to make the process more transparent.

There is, of course, a certain democracy in the large scale of the earmarking scheme — science is not least among the beneficiaries, having gained funds in particular for the building of new labs and facilities. But universities are also known to have spent substantial amounts of money on lobbying for earmarks, and, commendable though much of the science-related spending may have been, it's a path that bypasses project peer review and should be trod with caution.

Banning earmarks from the joint funding resolution is an effective short-term solution, but the earmarks will be back for the FY2008 bills. However, Democrats have pushed forward legislation that does away with anonymous earmarking: any such inclusion must bear the name of its proposer, who must have no personal financial interest in it.

Perhaps at last there is the will to iron out some of the wrinkles in the appropriations system. And it seems that, even if not quite in line with the goals of the American Competitiveness Initiative, increased funding for the physical sciences is to be sustained for at least another year. Fine words indeed. A true commitment to physical science should enable the US physics community to plan and develop over the years ahead — having confidence that there will be no repetition of last year's failed appropriations and that the FY2008 funding proposed by the Republican president will be granted by the Democrat-controlled Congress. Here's hoping.