

How to lobby for more science

The future health of science in the United States may depend more directly on the support of public education than on the continuation of the past decade's generous support of basic research.

DR Frank Press, the president of the National Academy of Sciences in the United States, plainly wishes he were back in the Old Executive Offices in Washington — a building shaped like a wedding-cake, but painted battle-ship-grey — where he spent some time in another age as President Jimmy Carter's Science Advisor. His stirring address last week to the annual meeting of the academy (*Nature* 338, 693; 1989) must be read in that context. The appointment in the meantime of Dr Allan T. Bromley of Yale as his successor (Keyworth and Graham in between) was no doubt just a piquant coincidence.

Last year, on the same occasion, Press asked that the scientific community should learn to make up its mind what it wants from government. Superconducting Super Collider or space shuttle, high- T_c superconductivity or the human genome? Better that the scientific community should decide for itself than leave the issues in the lap of Congress. Nothing much has happened in response. This year, Press's message was quieter but more urgent: let there be a decent system of public education, double public spending on basic science and be prepared to wait for the benefits (which cannot come quickly).

Press also made a telling administrative point: why cannot the new US president, Mr George Bush, "reform and integrate the incoherent and uncoordinated policies of the federal departments he has inherited"? He meant not merely that policy on research and development should be better run, but that the US government should find a better way of marrying its commendably high expectations of science and technology with its immediate demands of them. (Make SDI work, stop death, cure the trade imbalance by beating Japan at silicon chips, and all that jazz.) Press, with his experience, knows why the task must be virtually impossible even for a president of the United States. Governments of all stripes everywhere are so used to crises (and crisis-management) that they have unlearned how to manage problems with a longer time-scale. The US government's investment in basic research over the past decade, unthinking though it may have been, has been one of the outstanding exceptions to the rule that short-term considerations matter most.

Now, in the United States, there are undoubtedly long-term problems of research equipment and facilities, as Press averred. But the problem that matters most for science, technology and the well-being of US society is the state of public education. Press modestly, if properly,

asks that the research community should campaign for a better image of science as a career, so that more young people will be attracted to it, and for government support for graduate students. But should not the world's best-heeled and most productive academic community be campaigning on a broader front?

Science is most excellent and technology most beneficial not when they are cultivated in isolation but when they are embedded in a generally enlivened culture. Then, operationally, the pool of those who may wish to choose careers in science is enlarged. Yet the state of the public schools in the United States is such that there is a danger that the the next generation of scientists, not to mention intellectuals of other kinds, will be drawn from the sons and daughters of the present middle classes. Can that be wise? Should not a campaign be conducted in the United States to ensure that black or Spanish-speaking kids in the urban ghettos — and white kids in the endless rural deserts of North America — learn to read and write and get to use the calculus? Press rightly asks that government policies should be more coherent, but good government is more than good organization. Governments must also choose. This US government, in the interests of the United States and the rest of us, must choose public education. President Bush has said some of the right things and Press has done his bit. Can Bromley help? □

More market force

The British government is devising a market in higher education, but customers and contractors are proxies.

BRITISH academic life continues in upheaval, now (predictably, see *Nature* 338, 445; 1989) because of the government's proposal to increase the tuition fees it pays on behalf of students in higher education. Nominally, the change is a book-keeping transaction. The cost of paying the extra fees (channelled through local education authorities) will be subtracted from the general subventions of higher education, channelled now through bodies inelegantly called funding councils. But in the long run, the effect will be profound. For British universities and colleges, hard pressed enough at present to recruit students, will find themselves competing even more fiercely for young people, who are becoming scarcer all the time for