■ **Rewarding outstanding teachers:** An $8-million-a-year program to provide $5000 to individual teachers judged outstanding in statewide competitions.

■ **A National Science Scholars program:** A program starting with $5 million in fiscal 1990, rising to $20 million in 1993, to provide 4-year scholarships of up to $10,000 a year to outstanding science students. One student would be nominated by each member of the House of Representatives and each Senator, and 30 would be nominated by the President. Legislation along these lines was introduced recently by Senator John Glenn (D–OH) and Representative Doug Walgren (D–PA).

■ **Magnet schools:** A $100-million-a-year program to help states establish magnet school systems in which individual schools specialize in particular subjects. The establishment of magnet schools specializing in mathematics and science will be encouraged.

In essence, Bush is following the "flexible freeze" strategy outlined in his campaign, under which some programs would be frozen in order to permit growth in priority areas (*Science,* 9 December 1988, p. 1368). Congress, however, is likely to reject the idea of specifying in detail only the increases and not the cuts. "Mr. Bush presented us with a new fangled kind of budget that told only the good news. He left it to Congress to give the American people the bad news," Panetta grumbled.

Panetta and Senator James Sasser (D–TN), chairman of the Senate Budget Committee, announced that they planned to meet this week with Richard Darman, Bush's budget chief, to attempt to force the Administration to be specific on the cuts.

For the time being, however, officials in many of the science agencies are pleased that their programs have been identified as being in the favored category of priority programs. At NSF on the day after Bush's speech, director Erich Bloch expressed satisfaction that Bush had singled the foundation out. "We're absolutely delighted," added Mary Good, chairman of the National Science Board. ■ COLIN NORMAN

New U.K. Science Initiatives Backed

London

An impressive list of new scientific initiatives has been approved for funding by the British government as a result of its decision, announced in principle 3 months ago, to boost the U.K. science budget by 16% next year, the first major increase for almost a decade.

Included in these initiatives will be a new center for interdisciplinary research into transgenic animal biology at the University of Edinburgh, increased funding for AIDS research and the European Laboratory for Particle Physics (CERN) in Geneva, and the setting up of an "information and resource center"—combined with a program of "directed research"—for the mapping and sequencing of the human genome.

In line with advice received from the Advisory Board for the Research Councils, the body that advises the government on the division of research funds between five separate councils, most of the new money will be used to boost areas of science considered important from a long-term social, economic, and industrial point of view.

For example, over a quarter of the new funding will be used to create nine new university-based Interdisciplinary Research Centers, each conceived to focus on fields considered to be strategically important. The new centers will include one in London on cell biology and another in Cambridge on macromolecular interactions.

The 16% increase will raise the United Kingdom's total research budget for 1989–1990 to $1.4 billion, and comparable increases are planned for the two following years. In addition to the interdisciplinary research centers, the new money will be used to launch national research programs in three fields considered of high priority: agriculture and the environment, the interaction between humans and computers, and geographic information systems.

In announcing the government's support for these various initiatives, Kenneth Baker, the Secretary of State for Education and Science, said one result would be that each of the five research councils would see their budgets increase by at least 10% next year.

In the case of the Natural Environment Research Council the increase will be 28%, reflecting a new-found enthusiasm for environmental topics expressed last autumn by Prime Minister Margaret Thatcher in a speech to the Royal Society. This money will, among other things, be used to boost research into ozone depletion in the atmosphere, and to breathe new life into the British Geological Survey, until recently threatened with extinction.

The advisory board's chairman, Sir David Phillips, whose complaints to the government in previous years about the shortage of funds for research had been ignored, said last week that the philosophy behind the way the new money is being spent was to "foster [a] purposeful reshaping of the science base." ■ DAVID DICKSON

R&D Suffers After Corporate Raids

Mergers, acquisitions, leveraged buy-outs, and other types of corporate restructurings that frequently burden companies with huge debts "appear to be a major factor" behind flat or declining industrial investment in research and development. The National Science Foundation (NSF), in a survey of 200 "leading" companies performing R&D, found that in 1986 and 1987 firms affected by some form of restructuring cut R&D outlays.

While overall R&D spending by industrial firms reached $54.6 billion in 1987, NSF concluded that after adjusting for inflation funding is the same as in 1985. The companies covered in the analysis account for 90% of total corporate research expenditures.

Of the 200 firms examined in the study performed for the House Subcommittee on Telecommunications and Finance, 16 were involved in mergers. Another 8 were affected by leveraged buy-outs or other restructurings. The two groups spent $9.2 billion and $600 million, respectively, on research in 1987. While the amount is impressive, it represents a 5.3% decrease in outlays compared to 1986. NSF notes that the remaining companies in the survey increased spending in the same period by 5.4%.

Leveraged buy-outs, according to the NSF report, may have the biggest impact on corporate R&D. NSF says that the eight firms involved in buy-outs, buy-backs, and major restructurings saw their R&D outlays in 1987 fall an average 12.8%. The degree to which R&D expenditures are affected by financial restructuring, however, seems to vary somewhat with the industry. Melissa Pollack, who performed the analysis, observes that the chemical, pharmaceutical, and medical supply companies, as a group, still managed to boost R&D spending, but at a level that was less than half that of the industrial group as a whole.

When companies touched by mergers or restructurings were forced to cut back R&D spending, most also had to lay off research staff. In some instances, reductions in staff resulted from the elimination of duplication in merged companies.

Meanwhile, Representative Edward Markey (D–MA), chairman of the telecommunications and finance subcommittee, is expected to hold hearings later this month on how corporate restructuring affects R&D. Hearings examining the broader impact on the American economy were held by the House Ways and Means Committee in January. ■ MARK CRAWFORD