Reagan Administration Prepares Budget Cuts

Some science programs will be affected. but there is no overall policy for R & D

The Reagan Administration has produced a tentative list of budget cuts which includes several science programs and prominent federal research activities. Compared with many other areas of the federal budget, however, basic research seems likely to escape relatively unscathed from the general carnage. But the cuts are being made without input from the President's science adviser (there still is none) or his office.

Leaked copies of the list, which has become known as the "Black Book," have been circulating on Capitol Hill, and they have kept Xerox machines busy all over Washington. Further details of the budget cuts are expected in President Reagan's economic message on 18 February, but the new Administration's complete economic plan will not be made public until 10 March. The proposals are likely to be changed considerably over the coming weeks through agency infighting and congressional opposition, but they show at least where the battle lines are going to be drawn.

The Black Book, which was put together by the Office of Management and Budget (OMB), includes proposals to trim \$62 million from the National Science Foundation's (NSF's) fiscal year (FY) 1981 budget and \$241 million from the FY 1982 budget. Since NSF's budget has expanded rapidly in recent years -Carter's FY 1982 budget would have provided a 14 percent increase over the current year, for example—it is a tempting target. But OMB's proposed cuts are aimed at a few sensitive programs.

The proposals call for deep cuts in NSF's support for science education and for efforts to encourage greater participation of women and minorities in science. They also include major reductions in NSF's support for behavioral and social sciences, while leaving virtually untouched its programs in support of basic research in the physical sciences. In addition, OMB has proposed the elimination of a \$75 million NSF program aimed at upgrading scientific instruments in universities and colleges.

As for the space program, Reagan's budget cutters found an irresisitible target in the 21 percent increase that the Carter Administration proposed in its

FY 1982 budget for the National Aeronautics and Space Administration (NASA). The OMB proposals call for deep cuts in space science, particularly planetary exploration projects. The Galileo mission to Jupiter would be cancelled, and funds for the construction of a fifth orbiter for the space shuttle would be deleted. NASA would also be forced to defer its plans to launch a gamma-ray observatory, conduct a close-up radar study of Venus, and build a fourth shuttle orbiter.

Concerning the Department of Energy (DOE), the OMB's philosophy is straightforward: federal efforts designed to move particular technologies into the marketplace should be scaled back drastically, and market forces should be allowed to determine which technologies are put to widespread use.

This policy would result in massive cuts in solar energy programs, federal funding for energy conservation, and government efforts to spur the development of synthetic fuels (see page 903). DOE's support for solar energy would drop from \$577 million in FY 1981 to \$220 million in FY 1982. Conservation programs would be even more severely butchered, dropping from a projected \$753 million this year to \$306 million in

As for nuclear energy, although no details were given in OMB's preliminary list of proposed cuts, Energy Secretary James B. Edwards told reporters on 11 February that he expects substantial increases in some areas. In particular, the Reagan Administration is expected to boost funding for the breeder reactor program and for nuclear waste management. The nuclear program, it seems, will be exempted from the view that private industry should assume a greater share of energy research and development activities.

OMB's preliminary list of targets does not include all the major science agencies, so it is impossible to put a dollar figure on the proposed cuts in science and technology programs. Missing from the list, for example, are the Department of Defense, whose R & D budget is ex-

Scientists Lobby to Halt Cuts

Simon Ramo, who continues to dominate speculation on who will be the next science adviser, told Science that he has received over 200 telegrams asking him to try to block some of the proposed cuts in science programs. He says, however, that he has not participated in any of the budgetary discussions, and he has no firsthand knowledge of the Reagan Administration's budget proposals. As for the rumors that he will soon be named as Reagan's science adviser, Ramo says he has not been invited and that he asked for his name not to be included on the list of candidates that was circulating during the transition period. Asked whether he would turn down the job if it were offered, however, Ramo would only say that many other people have been put forward as candidates, and he is sure that one of them will be suitable.—C.N.



Don't call me . . .

Simon Ramo has received a flood of cables, but is not involved in the budget process.

pected to increase, the National Institutes of Health, which is expected to suffer relatively modest cuts, and DOE's nuclear energy programs, which will almost certainly be favored with substantial increases. Until the complete budget revisions are available, it is difficult to discern the Administration's overall budgetary intentions for science and technology, and indeed, it may have no explicit policy in mind.

The Reagan Administration's budget proposals are largely the work of OMB Director David Stockman, and they are being made without the benefit of assistance from the White House Office of Science and Technology Policy (OSTP). Until the Administration gets around to

appointing a presidential science adviser, OSTP will be kept on the sidelines of the budget battles. The officials who are holding the fort at OSTP say that they have had no input so far in the shaping of the budget cuts, and they do not expect to be invited to participate. By the time a science adviser arrives on the scene, most of the crucial decisions will have been made.

The budget proposals are also being shaped before many sub-Cabinet appointments are made. There is, for example, no assistant secretary in DOE responsible for conservation and solar programs, and thus the budget cuts in those areas are being put together in the absence of a strong champion for the

programs that are scheduled for the knife

The OMB proposals are likely to undergo substantial change as they wend their way through the Administration and the tortuous appropriations process on Capitol Hill, but they have already provoked protests from the scientific community (see box on page 901). OMB is well aware of the opposition. Its Black Book notes that the NASA budget changes will cause "strongest reaction from the space science community," and suggests that "there will be strong opposition to the NSF changes from the scientific community, particularly social scientists, and the science education community."-COLIN NORMAN

"Black Book" Threatens Synfuels Projects

Reagan's free-market energy policy could delay or kill large coal liquefaction plants; Democrats protest

Having lifted the last trace of government controls on oil, the Reagan Administration is in an excellent position to argue that industry should get to work and find new sources of fuel without requiring much federal aid. That is precisely what the new White House staff is arguing.

The infamous "Black Book" of suggested budget changes drawn up early this year by David Stockman, Reagan's chief of the Office of Management and Budget (OMB), recommends drastic shifts and cuts to let private companies shoulder a greater risk in developing new liquid and gaseous fuels. Stockman has aimed a sharp blow at the Carter Administration's synthetic fuel subsidies and at the independent agency created in 1980 to finance them—the Synthetic Fuels Corporation (SFC).

The Black Book itself warns the President that all this is controversial. These proposals, it says, "will be strongly opposed by project sponsors and the array of business and labor interests that would benefit from government-subsidized construction programs..." It anticipates "negative public and media reaction" as well, with heavy bipartisan flak from congressional delegations expecting to have synfuels plants built in their states: West Virginia, Kentucky, Ohio, Alabama, and Illinois.

The reaction has been swift indeed, but as far as the companies are concerned, muted. The most visible protest so far has been led by Representative James Wright (D-Texas), the number two Democratic Party leader in the House and prime mover behind the Energy Security Act of 1980, which created the synthetic fuels program. Wright and 33 other congressmen, including House Speaker Thomas O'Neill (D-Mass.), sent a letter to the President on 6 January asking him to keep hands off. They warn that "the synthetic fuel program continues to enjoy substantial majorities in the Congress." The letter argues that reducing the government's loan guarantees and price supports would "contribute

Wright's letter warns, "the synthetic fuels program continues to enjoy substantial majorities in the Congress."

nothing to your efforts to balance the budget" because these commitments do not represent actual expenditures. And as for Department of Energy (DOE) funds for synfuels, the congressmen write, "these funds must not be rescinded." Richard Olson, Wright's assistant who delivered the letter to the White House, said last week that no reply has been received.

Meanwhile, a private lobbying campaign goes on behind the scenes. According to a knowledgeable DOE official, Gulf Oil has brought a team of experts from Colorado to present its case for synfuels to the White House. Gulf is particularly panicky, for reasons explained later. Other synfuels investors are concentrating their lobbying on Capitol Hill, for they apparently think their proposals are less vulnerable and can await salvation by Congress alone.

Stockman's tactics, one industry observer says, are to "stomp on everything in sight and then wait to see what Congress forces down his throat." This oil person, like others in the industry, thinks it is too early to guess how many of Stockman's proposals might stick, but seems confident that Congress will hold out against any major revision of the subsidy plan.

The economic principles behind Stockman's assault on DOE and the synfuels program are set out in the Black Book as follows:

- Government support should be focused on longer-term, high-risk R & D with potential for high payoff.
- Government involvement could continue only through "proof of concept" at the process development unit scale.
- Nearer term technical support for processes would be limited to cases where the government has a unique technical resource or facility.
- Industry would be responsible for supporting demonstrations and commercializing the technologies as they become economic.