kept the Academy membership at large from thinking of him as a Carter man, perceptions in Washington are otherwise. What effect this might have on his role as NAS president is anybody's guess but seems worth thinking about.

Meanwhile, Academy lawyers are pondering the possible problems that may arise simply as a result of Press having been a senior government employee and, therefore, subject to provisions of the 1978 Ethics in Government Act. That law, which proscribes the dealings government employees may have with their agencies once they leave for private life, was not intended to keep a person like Press from going to an institution like the Academy. But it does place a person in a kind of limbo for at least 2 years when it comes to "influencing" policy at his former agency. A thorough legal interpretation of the situation, which is by no means simple, has yet to be worked out.—BARBARA J. CULLITON

Frank Press's Numbers Game

Even in an ordinary year, it is hard to distinguish fact from fancy in the federal budget, but this year is an extraordinary one. The fiscal planners at the White House have bent, molded, and remolded the fiscal 1981 budget several times to suit the twists and turns of the President's election campaign. The results have been confusing. The President's science adviser, Frank Press, recently got himself tangled in these election-year numbers, for he has been defending the President's record as a magnanimous supporter of research and development (R & D). His efforts won him some criticism in Congress and in the press for overstating the record.

The confusion arises out of Press's testimony on 19 September before the Senate subcommittee on science, technology, and space. The science adviser was asked about the net effect on R & D funding of all the cutting and patching that had been done during the year. The fiscal 1981 budget was given to Congress in January. In March, the Administration withdrew it and reduced spending in order to decrease the projected federal deficit. About $900 million in R & D funding was cut, including about $190 million slated for basic research. Then in August the Administration put out an economic revitalization plan which restored some of the cuts. Carter pledged to commit up to $600 million above planned expenditures in fiscal 1981 and 1982 for new funding of R & D. Academics and others interested in the money have been invited to Washington, D.C., this fall to help the Administration decide how this $600 million should be spent.

At the Senate subcommittee hearing, chairman Adlai Stevenson III (D-Ill.) asked Press about the R & D funding shuffle. Isn't it true, he asked, that the money Carter has pledged to spend this year and next will only make up for part of the loss incurred in March? Press gave the Administration line: "The new funding in the President's economic message will permit an increase in the support of basic research over the 4-year budget period in which this Administration has been in office of 11 percent real growth above inflation." Stevenson expressed skepticism about the 11 percent figure. According to the subcommittee staff, the White House never tried to justify the number with backup data.

Press has now offered *Science* a fuller, though not necessarily more satisfying explanation. He figures that the Administration's aid to basic research (as distinct from the broad category of R & D) began with the fiscal 1978 budget. This budget was prepared by the Ford Administration and was sent to Congress by Carter in January of 1977. Since then, funding of research has grown tremendously, according to Press and his assistant Richard Meserve. In terms of current dollars, the increase through fiscal 1981 amounts to 35 percent they say. In constant terms (1972 dollars), the increase amounts to about 2.5 percent. But Meserve says that one must not forget that the President has promised to commit up to $600 million in extra R & D funding in fiscal 1981 and 1982. The addition, he says, will ensure that basic research funding increases by 3 percent in real terms for the next 2 years. When this promise is "factored in," the real increase in basic research funding during the Carter years amounts to more than 10 percent.

There may be flaws in the White House's method of computation. Some people say it's not fair to count the fiscal 1978 budget as Carter's. But that's a quibble. The important point is the decision to count Carter's $600 million spending pledge as a real commitment. If this chimera is left out, the figures show that the Administration's actual spending on basic research over the last 3 or 4 years has just stayed ahead of inflation. According to Willis Shapley, who analyzes the federal budget each year for the American Association for the Advancement of Science, the promise-less figures for basic research funding show almost no increase in federal support in terms of constant 1972 dollars. When inflation is subtracted out, federal support is a steady $2.4 billion each year since 1979. (See *Research & Development: AAAS Report V*, by Shapley *et al.*, p. 17.)

Nevertheless, if one has a mind to, one can come up with more encouraging numbers. Meserve explained his method of computing the figures as follows. Step one: calculate the increase in the basic research budget in constant dollars from fiscal 1978 ($2.39 billion) to fiscal 1981 ($2.45 billion). It should come to 2.5 percent. Step two: add 4.7 percent. Why? Because the Administration has promised that basic research funding will increase by 3 percent in fiscal 1981, while the actual value of the budget is expected to decline by 1.7 percent. Inflation is causing the decline. Thus, Meserve says, the total 1981 committment will have to be 4.7 percent. Step three: add 3 percent. This is the amount Carter has promised to add to the basic research budget in fiscal 1982, during his second term in office. Step four: add up all the percentages and get 10.2 percent, which in White House math neatly rounds off to 11. Voilà.

After reflecting on these numbers overnight, Meserve telephoned to give an alternative, correct method of figuring. Once the President's pledge has been carried out, he said, the budget for basic research, in constant (1972) dollars, will be $2.568 billion in fiscal 1981 and $2.645 billion in fiscal 1982. Thus the net growth from 1978 to 1982 comes to 10.5 percent. This actually does round off to 11. Meserve concluded: "Nobody can quarrel about a half a percent, can they?"—ELIOT MARSHALL

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