# Federal Science: Filling the Blanks in Policy and Personnel

For the scientific community it appears that the other shoe is about to drop with the disclosure of the Administration's alternative to the science advisory structure in the White House (see page 455). The departure early this month of presidential science adviser Edward E. David amid reports that he would not be replaced put into limbo the Office of Science and Technology (OST) and the President's Science Advisory Committee. Now it appears that the reorganizers are dismantling not only the science advisory apparatus in the White House but the special relationship scientists had developed with the President since World War II.

To what extent this means that science is being "downgraded" cannot be fairly judged until the new machinery is assembled and begins to function. But there are some ironies in rumored choice of the National Science Foundation as the lead agency in federal science. When NSF was created more than two decades ago, some of its proponents envisioned its developing into a kind of ministry of science, making science policy and coodinating science programs for the rest of the federal government. The language of the law creating NSF opened the way for the agency to exercise such functions, but NSF never took up the challenge. One view is that canny NSF officials wanted no part of assuming major responsibilities without real authority to discharge them; another is that agency policy faithfully reflected the wishes of the scientific community that NSF should foster and protect basic research and leave the support of costly and potentially controversial applied R & D to mission-oriented agencies. Under the new dispensation for science, these policy-making and coordinating functions presumably would complete the NSF-OST-NSF round trip.

The choice of NSF seems consistent with developments in recent years. Congress, and the Executive, beginning during the presidency of Lyndon Johnson, has pressured NSF to focus its efforts more directly on finding scientific and technological means to solve pressing national problems. The Nixon Administration has made it plain from the start that it was dissatisfied with the practical payoff from huge federal investments in research and has pressed for altered priorities and improved management in science.

The President's budget for fiscal year 1974, due to be unveiled soon, is expected to reinforce Administration priorities with more money going into such things as the development of technology to meet the energy crisis and transportation problems, research on cancer and heart disease, increased R & D on new military systems judged by the Administration to be needed in the era of negotiation it sees ahead, and research in sectors of education and crime control. To compensate in what is expected to be a very tight budget, very substantial cuts in the science budget are expected in programs judged to be either ineffective, poorly managed, or of low priority.

Does the treatment of science mean that the Nixon Administration is anti-science or merely that science is sharing the rigors of an anti-inflationary budget and a reordering of priorities? The Administration has played its cards so close to the vest that there has been remarkably little information available about what has been happening and less on why. The Administration's words and actions since the election, however, have created a remarkable air of uncertainty in Washington.

Hostility in Congress and angst in the bureaucracy has been heightened in recent weeks by the Administration's effort to carry out a managerial revolution in the federal service and the President's apparent determination to change the rules of the game governing interactions between the White House, Congress, and the bureaucracy.

In many cases the White House has announced departures from policy-level jobs without nominating replacements; an unusual number of these posts are vacant or are occupied by lame-duck incumbents (see box, page 457). Not surprisingly this has fueled speculation about who will be appointed, whether the delay in making appointments is deliberate, and whether some of the jobs will be filled at all.

Since the election, a strong pattern in appointments has emerged with the President systematically nominating people committed above all to carrying out Administration policies. Now, more than ever, key jobs are going to people who have served a tour of duty on the White House staff during the President's first term.

Inevitably, this pattern raises the question of whether the White House has become a magic fountain of managerial expertise or whether reliability is being ranked with ability among the criteria for picking federal administrators.

### Health Hierarchy

The same sort of questions that have hovered over the science advisory posts in the White House are being asked about the health hierarchy in the Department of Health, Education, and Welfare (HEW). At HEW, resignations and firings removed the whole top echelon of officials responsible for health care, research, and education programs (*Science*, 22 December). The clean sweep extends to the top of HEW, but the two top posts are emphatically filled. Caspar Weinberger, who is the new HEW secretary came to the department from the White House where he was director of the Office of Management and Budget (OMB). The new No. 2 man at HEW is Under Secretary Frank J. Carlucci who was Weinberger's deputy at OMB. Their White House experience and managerial credentials make them prototypes of the 1973-model Nixon administrator.

The next link in the chain of command for health is the assistant secretaryship of health, which has been vacant since the postelection period when the last incumbent, Merlin K. DuVal, resigned (in the original sense of the term) to return to the University of Arizona as vice president for health affairs. It appears that the vacancy will be filled from within the Administration by the head of the Food and Drug Administration, Charles C. Edwards, who apparently also passed the Administration litmus test for loyalty and effectiveness.

Three other key health jobs have been lying fallow since before the holidays. The bell tolled in early December for National Institutes of Health director Robert Marston, Health Services

and Mental Health head Vernon Wilson and Surgeon General Jesse Steinfeld.

In the biomedical research community the strongest tremors were caused by the firing of Marston. Portents of big cuts in the biomedical research and medical school support budgets at a time when the NIH front office was empty struck many researchers as particularly threatening. Furthermore, the NIH directorship has seemed to biomedical scientists a symbolic stewardship above politics and beyond arbitrary action from "downtown." Because Marston, like David, was neither a maverick nor a bungler, his firing, coming at the time of so many other firings, is being interpreted by some as a move to "politicize" the post.

This is not necessarily so if the Administration's pronouncements are taken at face value. The President made no secret during his first term about his unhappiness with the way government agencies are organized and function. And in early January he repeated his philosophy and his plan for reorganization in a formal statement on "Redirecting Executive Branch Management." The following excerpt gives a fair idea of the thrust:

> Americans can feel in their everyday lives the effects of a Federal establishment that in recent decades has become increasingly wasteful, inefficient, and expensive, more and more meddlesome in the affairs of individuals and lower levels of government, and too often unresponsive both to the people whom it exists to serve and to the Presidents whom the people elect to administer it.
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> This is why I early proclaimed reform as a watchword of my Administration. This is why I moved to rescue the postal service from political pressures and bureaucratic tangles. This is why I commissioned wideranging studies by the President's Advisory Council on Executive Organization in 1969. This is why I followed up on those studies by establishing the Office of Management and Budget, the Domestic Council, and the Environmental Protection Agency by reorganization plans in 1970, and by proposing legislation early in 1971 to replace 7 outmoded, constituency-oriented Cabinet departments and a number of independent agencies with 4 streamlined, goal-oriented departments fitted to needs of the future.
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> During the 19 months that these reorganization proposals were before the 92nd Congress, valuable groundwork for their enactment was laid in hearings and staff work, and refinements to the legislation were added by the Administration. Although progress fell short of my hopes, I am determined to continue building on that progress by resubmitting similar legislation to the Congress in 1973.
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> I trust that the Members of the House and Senate received the same message

# Box Score: Hired, Fired, Retired

A check of 30 top government science jobs shows that, as of inauguration, nearly half are vacant, mostly as a result of the wave of sackings and resignations that President Nixon initiated soon after his reelection. The changes and new appointments announced so far are listed below.

In the Office of Science and Technology, both the director, **Edward E. David**, and the deputy director, **John Baldeschwieler**, have resigned, amid rumors that the OST is to be merged with the NSF or with the Office of Management and Budget (OMB). David was also the President's science adviser and chairman of the President's Science Advisory Committee (PSAC) which may also be destined for liquidation.

A clean sweep has been made at the top of the Department of Health, Education, and Welfare (*Science*, 22 December 1972). Departures include Secretary **Elliot Richardson** (to be Secretary of Defense), under secretary **John G. Veneman**, assistant secretary **Merlin K. DuVal**, surgeon general **Jesse L. Steinfeld**, director of the National Institutes of Health **Robert Q. Marston**, and director of the Health Services and Mental Health Administration **Vernon E. Wilson. Charles C. Edwards**, commissioner of the Food and Drug Administration, is likely to move up to the assistant secretaryship. Richardson and Veneman are replaced by two OMB officials, **Caspar W. Weinberger** and **Frank C. Carlucci**, but successors to the others have yet to be announced. **John F. Sherman**, deputy NIH director for administration, has been appointed acting director, and former director Marston is to be acting director of the National Institute of Neurological Diseases and Stroke.

At the Department of Defense, **John S. Foster** has resigned as director of defense research and engineering; **Robert L. Johnson** and **Robert A. Frosch**, assistant secretaries for research and development in the Army and Navy, respectively, have resigned; their Air Force counterpart, **Grant L. Hansen**, submitted a pro forma resignation but is still in office. **Gardiner L. Tucker**, assistant secretary for systems analysis, has also quit.

The director for science and education in the Department of Agriculture, **Ned D. Bayley**, has resigned, and his office has been abolished. Scientific and educational functions are to be assumed by the office of the assistant secretary for rural development and conservation. The current incumbent, **Thomas K. Cowden**, has resigned to become a counselor to the secretary.

In the National Science Foundation, no resignations were requested from director **H. Guyford Stever**, deputy director **Raymond L. Bisplinghoff**, or assistant directors **Thomas B. Owen** and **Edward C. Creutz**. Two other assistant directorships at the NSF have been vacant for several months.

Atomic Energy Commission chairman **James R. Schlesinger** has quit to run the Central Intelligence Agency, but the other four commissioners are expected to continue in office.

The top hierarchy has been confirmed in office in NASA, the Environmental Protection Agency, and the Council on Environmental Quality. In the Department of the Interior, **Frank Clark**, deputy under secretary for science, has returned to the Geological Survey and his post abolished. The post of science adviser in the Interior has been vacant since 1970. **John D. Whitaker**, presidential assistant for the environment, becomes under secretary of Interior.

**Harold B. Finger**, assistant secretary for research and technology in the Department of Housing and Urban Development, has resigned. In the Department of Commerce, **Robert Cairns**, deputy assistant secretary for science and technology, has resigned. No replacement has been announced for **James H. Wakelin**, assistant secretary for science and technology, who quit several months ago, but a new director has been announced for the National Bureau of Standards. He is **Richard W. Roberts**, a research manager at General Electric.—N.W.

that I did when we went to the people last fall—the message that Americans are fed up with wasteful, musclebound government in Washington and anxious for change that works—and I hope that both Houses will respond constructively to this new opportunity to work with us in producing such change.

Nixon has made it perfectly clear that he intends to reorganize, if necessary without the blessing of Congress. Besides establishing clearer lines of responsibility and communications, the reorganization is also aimed at increasing what, in the rhetoric of reform, is called "responsiveness." Like other Presidents before him, Nixon has encountered difficulties in prevailing on the bureaucrats to carry out Administration policies. From the White House it looks as if a bureaucrat's loyalty is to his agency, to his program, to a constituency outside government, or to patrons in Congress. The White House seems set on implementing the view that those who administer government programs should follow Administration policies and that those not responsive in these terms should not be administering programs.

With all its stress on management skills and loyalty the White House may not be expecting miracles. Merlin K. DuVal, former assistant secretary for health, sees a more modest objective. DuVal stresses that he speaks only for himself, but his perspective is from a recently concluded Washington experience which he calls "an 18-month crash course."

DuVal says that if you are "on the Administration team" that does mean you will defend the President's budget, but he feels that loyalty to the Administration does not preclude an official's standing up for his program.

The President does feel, says DuVal, that "people are captured by the glamor of their own programs" and lose critical perspective. DuVal says that his perception of the President's purpose in appointing people with management skills and a sense of detachment is that "the President simply wants a new look, he's not walking away from programs."

Another point that DuVal makes is that many bureaucrats view Congress as a natural ally since the parentage of programs is seen to be in Congress, and their "sustenance" comes from Congress also. Because of this, Congress has become the "operators of government machinery," rather than the Executive, as the Constitution provides.

A cynic might suggest that there is less here than meets the eye. Congress may blunt the reorganization. The White House's hand-picked administrators may start out governing, like proconsuls, but succeed in making only marginal changes. And, after an initial confusion about who reports to whom, the bureaucracy may settle back into the status quo.

On the other hand, the arguments for the Executive's getting balanced and effective science advice are as compelling as they ever were, and it would benefit all concerned if the Nixon Administration finds a way to improve the system. For the moment it is true if trite to say that the thing to watch is not the reorganization charts but the shape of the science budget and the quality of the Administration's appointees.—JOHN WALSH

# Science Adviser's Exit: What Does It Mean for Science Policy?

Edward E. David, maybe the last science adviser to the President, has left the White House, the Office of Science and Technology (OST) seems about to be degraded to an uncertain future as an appendage of the National Science Foundation, and the President's Science Advisory Committee seems scheduled for lingering death or dissolution. At one stroke, science may lose its official voice and organized role at court. What do these changes portend for science policy? Will basic research suffer? What role in national policy does the White House have in mind for science?

The President's decision to dispense with a science adviser is a serious blow to the scientific community to the extent that the science adviser's advice was heeded and, when heeded, affected federal support for science. It is easier to argue that David and his predecessors played a symbolic, quasi-ambassadorial role in the White House than that they were movers and shakers. Far from being able to do any special pleading for the scientific community, even if he were inclined to, David was hard put to create a sphere of influence even for his own office. This he attempted to do by working closely with the Office of Management and Budget (OMB). [The limits to OST's influence in the Nixon White House were sharply defined by the appointment of William S. Magruder, program manager for the SST, to head the White House search for new technological initiatives. The White House also bypassed OST by receiving inputs from scientists on an ad hoc basis.

It is notable that, despite the OST's apparent lack of weight in White House counsels, federal support for science has continued to increase, although inevitably at less than the 15 percent growth rates of the early 1960's. In last year's budget (fiscal 1973) there was a 4.4 percent growth in federal science outlays. As of this writing the 1974 budget has yet to be announced but the indications are that, despite predictions of a savage, across-the-board cutback, civilian science will manage a modest overall increment, although with reductions in certain areas.

The still generous support of science in the last few years may, of course, owe something to the advocacy of the science advisers. More probably, the decisive factor has been the feeling of the OMB's economists that research and development expenditures of almost any kind are, in the long run, beneficial for the gross national product, for productivity and for the engendering of high-technology products. The drift of the present Administration for a greater focusing of research has overlain, but not supplanted, this built-in kindly disposition toward research and development.

To the extent that the power of the purse has always lain with the OMB, the ousting of the OST should make no great difference to the macroeconomics of federal science policy. The probable incorporation of the OST into the NSF is another matter altogether. Despite the wording of its original charter, the NSF has always kept well clear of any policy-making role. Policy-making and the pursuit of pure