Office of Management and Budget: Skeptical View of Scientific Advice

The Office of Management and Budget is the agent of the President. Its officials are paid to make sure that legislation and budgets proposed by government agencies conform to Presidential wishes. They are also supposed to see to it that the agencies interpret and carry out presidential policy correctly. In fact, one important feature of the OMB's Reorganization Plan No. 1 of 1973 was ". . . the goal of reorienting the Office to focus on its original mission as a staff to the President for top-level policy formulation and for monitoring policy execution—where reliance could not appropriately be placed on individual departments and agencies." At least that's what John C. Sawhill told Congress.*

The OMB is set apart from the rest of the government. Its officials are not paid to make people in government agencies happy. Nor are they paid to please the people on Capitol Hill. Frequently, they don't. Staffers at OMB are not hired to be popular. By and large, they aren't.

Members of Congress have called OMB people "gnomes," and "faceless, anonymous forces." Aides of House and Senate appropriations committees complain that OMB staffers neglect to return their phone calls. Department and agency heads resent the fact that they frequently are relegated to dealing with young budget examiners who rank relatively low in the federal hierarchy, rather than with OMB directors. They resent the fact that these often inexperienced examiners make the decisions that count. And everybody resents the fact that, even if he does manage to take his case to someone at the top, he still is not likely to extract as much money as he firmly believes he needs for his program. Nobody likes the man who tells you that you cannot have what you want.

Most people at OMB are well aware that they can intimidate and anger lesser mortals. Some seem to enjoy the power. Others sincerely decry it and make honest attempts to establish mutually satisfactory relationships with the congressional and agency people with whom they deal. But it is not always easy.

The Nixon Administration has been perfectly clear in saying that it does not want agency leaders to be advocates of their own programs. Frank Carlucci, undersecretary of Health, Education, and Welfare and former deputy of OMB, has said that "a public agency must serve first and always the broad public interest and take its direction and policy from the duly elected leader of the executive branch of government—be he president, governor, mayor, or county supervisor. . . . To me, public advocacy by a public agency is outright chaos. Sooner or later it places that agency in an adversary position with the chief executive." Richard Nixon does not want that.

Nevertheless, the fact remains that people running government agencies *are* advocates of their own programs. Inevitably, officials of OMB and the agencies are adversaries. It is no wonder there are hostilities.

The OMB's activities with respect to the National Institutes of Health and biomedical research policy and funding are revealing of the way in which the office works and of its relationships with the scientific community generally.

On the whole, OMB and NIH are not on very good terms. One apparent reason is that their respective leaders do not spend enough time talking to each other. Former NIH director Robert Q. Marston complained about that last fall, when he debated OMB associate director Paul H. O'Neill at the Institute of Medicine of the National Academy of Sciences. Marston, alleging that "the source and scope of expert advice used by the executive branch is very limited," said, "I think Paul brought out one of the reasons for this when he said that he has been distracted by other things. I suspect, Paul, that we will probably spend as much time today together talking about major NIH problems as we did during the whole time that I was director of NIH."

It is no wonder that O'Neill becomes distracted from the problems of biomedical research. A glance at the list of agencies for which he is responsible puts things in perspective. The NIH is not even mentioned by name; its presence is subsumed under the listing for HEW (see box).

If biomedical scientists are unhappy that O'Neill does not listen to them, O'Neill also is unhappy with the quality of advice he receives when he does listen. In his opinion, scientists often implicitly ask for special treatment but do nothing to deserve it. He says he hears too frequently the idea that what scientists say should be accepted just because they are scientists. "I don't think we can turn our world over to people who couch their reasoning in terms of their expertise or their degrees," he says.

When it comes to broad recommendations, O'Neill finds that panels of scientists, like panels of any special group, first propose that "a new organizational element be attached, either in the Office of the President or in the Office of the Secretary, to deal with the subject." Having done that, "They will recommend more money for their thing without looking out across the broader world."

O'Neill is also wary of much of the advice he gets from scientists because he believes he cannot always trust it. Simply put, the same people who stand up in public and declare that budget cuts are destroying American science say, in private, that there are excesses in the biomedical research budget. The national cancer program, in particular, has prompted individuals to follow this kind of double standard. Says O'Neill, ". . . while I have had people tell me quietly and privately, 'Look, we think you are doing too much in one area of biomedical research,' they have not been willing to stand up where it counts in public or in the Congress and say, 'You are doing too much.' They turn the argument around and say, 'You are not doing enough in other areas.'" He wishes, he says, that scientists could learn to think in terms of options or alternatives, especially in view of the fact that national resources are limited and that biomedical research is competing for them at the margin. "There is a fundamental notion in economics that says we live in a world of finite resources," he says. People who want them are going to have to be pretty

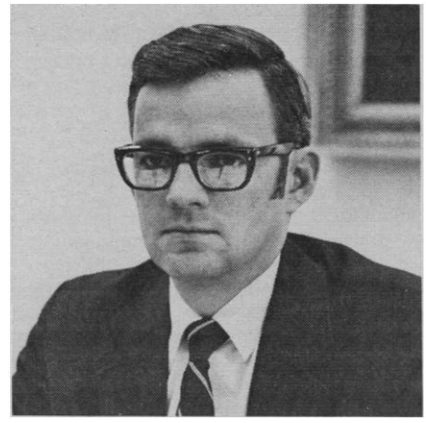
* Sawhill, former associate director of OMB for natural resources, energy, and science, testificd on 23 July 1973 on the reorganization of the office before the House Committee on Science and Astronautics. He is now the number-two man in the Federal Energy Office.

good at justifying their claim. O'Neill thinks that research scientists are not doing a very good job of that.

Science looks different to different people. The OMB wants to know, first and foremost, what good a given scientific enterprise is, what will come of it. Even though many OMB people concede that the products of scientific research cannot be anticipated the way those of an automobile plant can, the prevailing philosophy at the OMB is that science, like everything else, should pay off if it is going to get public support.

Most scientists hold as an article of faith that science deserves public support because it contributes to the advancement of man's understanding of himself and his world. The unhappy truth is that not everyone shares this faith, or, in any case, not as completely. Some of those people are in influential positions in the Nixon Administration. It is not an easy matter to resolve, but the fact that the two sides enter budget negotiations with different first premises does not help.

With respect to the Administration's willingness to support biomedical research, it is worth noting that the NIH budget has been going up, not down. Granted, its increases have been selective, going only to the cancer and heart institutes, but from the Administration's point of view its support of research has not declined. The argument is over how those additional funds



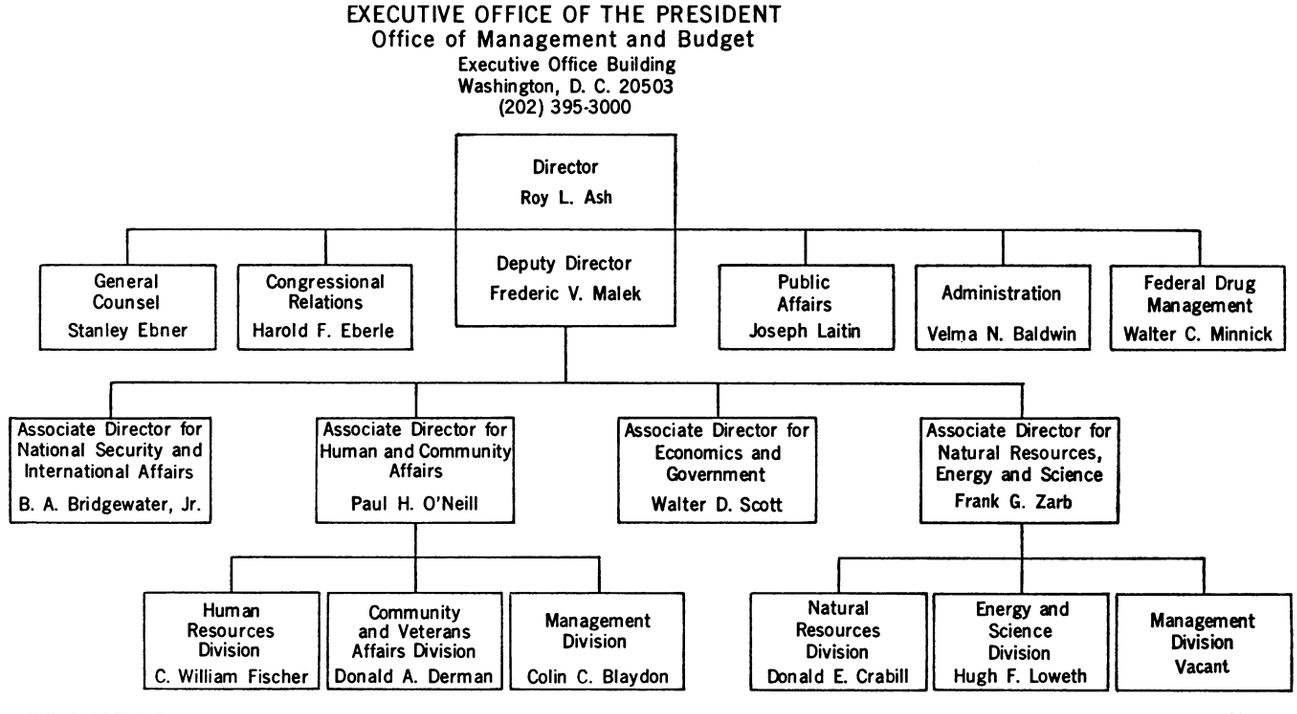
Paul H. O'Neill

are allocated, which brings one back to the issue of whether research should be expected to pay off in order to justify receiving large amounts of federal funds.

Given this adversary relationship between the scientific community and the OMB, the form in which scientists usually submit their advice to OMB leaves something to be desired on both sides, although OMB specifies the form in which it wants its information to come. Putting the President's budget together is a year-round process which approaches its final stages around the end of September, when the agencies send their budget requests downtown to O'Neill or one of his counterparts in the big, gray executive office building next to the White House. With each request comes a justification that supposedly explains why this program or that deserves to have more money than it stands a prayer of getting. These documents, which generally do not make very lively reading, arrive at OMB by the carload. Reportedly, they are seldom persuasive; it is inconceivable that they are even very carefully read.

One thing that many government scientists involved in preparing these budget justifications resent is the confidentiality in which they must be held. The justification that the Institute of General Medical Sciences submitted along with its budget request for fiscal 1974 is representative. The document is an attempt to explain why certain research in molecular biology, genetics, and other basic sciences should be supported. Stamped conspicuously across the front and on the top of every page is the following OMB-decreed warning: "Administrative Confidential, *Exercise Caution in Handling This Document.*" One would think it were a letter bomb.

Last summer, these and other top-secret budget memos were made public thanks to the good offices of senators Mike Mansfield (D–Mont.) and Warren Magnuson (D–Wash.), who had decided that the Congress ought to know what the OMB knows. So, at Mansfield's request, the General Accounting Office, which is Congress's accounting bloodhound, went out and got from the health and education



agencies of HEW the information that had gone to OMB on the potential impact of reductions in their budgets. Then, Mansfield and Magnuson, data in hand, blasted the Administration for neglecting research and opened their files to the press.

Among their treasure was a memo from Frank J. Rauscher, Jr., the director of the National Cancer Institute, explaining how the cancer program would fare in fiscal 1974 under various alternative budgets. That memo and the circumstances under which it was prepared are illustrative of how OMB gets advice still later in the budget process.

It was November and everybody's original justification was in but, of course, there was not enough money to go around and the men of the OMB had to decide whom to favor. They decided that, among other things, they needed to know more about the cancer program. So, someone from OMB picked up the phone and called Rauscher and asked him to determine what would happen to cancer research if the original budget request of $640 million were reduced to $456 million or $550 million. And, the caller wanted to know, could he have his answer by the next day. It was more a command than a question.

The next day, after many frantic hours of work with his staff, Rauscher sent in his reply, the thrust of which was that to cut the cancer budget would be a crime. The memo told OMB the following sorts of things: At $550 million,

► Expansion of research leads in the immunologic treatment of cancer into clinical trials will be restricted. Immunodiagnosis and immunotherapy offer the most immediate promising results in the early detection and treatment of major cancers.

► Each year 12,000 women die needlessly of cervical cancer because no more than 25 percent get Pap tests. Industrial contracts to develop equipment to automate the cytological screening of Pap tests would have to be postponed for at least a year.

► Evidence is rapidly accumulating that four newly discovered viruses cause cancer in man. If this is true, it can lead to the development of methods for preventing specific types of cancer. These leads cannot be fully developed or studies on new viruses which may induce malignancies cannot be mounted at the $550 million level.

The memo, which is like hundreds of similar defenses from other agencies, drew mixed reactions from the Administration officials and others who saw it. Some, perhaps many, of its points were valid, they felt; some were not. For instance, the fact that women are afraid to go to a doctor for a Pap smear has more to do with the high death rate from cervical cancer than does the fact that cytological screening is not automated. And, as far as those four human cancer viruses are concerned, virologists with the finest understanding of the field are still trying to figure out how Rauscher did his addition.

It is difficult to see that advice of this kind does anyone much good. The OMB apparently takes it with a grain of salt. The people who give it resent being forced to produce these documents overnight, and they do not believe that what they have to say will have any effect anyway.

When government scientists are not busy defending their programs in reports and memos to ranking OMB officials, they are justifying their activities to its budget examiner. There is one budget examiner for all of NIH. Her name is Ann Stone. She has been a budget examiner for 2 years. A fairly recent graduate of Duke University, where she studied social sciences, she worked for HEW before joining the staff of OMB. As part of an internship program at HEW, she took a few management courses, but she has never had any formal training in hard science. Stone recognizes that this is a sore point with many of the scientists

Each associate director's area of responsibility covers a large territory. The following list of the agencies and departments included in the Human Resources Division and the Energy and Science Division is only part of the picture. The associate director for Human and Community Affairs handles an additional 29 departments that are in the purview of the Community and Veterans Affairs Division. The associate director for Natural Resources, Energy, and Science deals with 17 additional departments in the Natural Resources Division.

Human and Community Affairs

Human Resources Division
Committee for Purchase of Products and Services of the Blind and Other Severely Handicapped
Construction Industry Collective Bargaining Commission
Construction Industry Stabilization Committee
Consumer Product Safety Commission
Department of Agriculture
  Food and Nutrition Service
Department of Health, Education, and Welfare
  (all except St. Elizabeth's Hospital)
Department of Labor
  (all except Bureau of Labor Statistics)
Federal Mediation and Conciliation Service
Legal Services Corporation
National Commission on Libraries and Information Science
National Foundation on Arts and Humanities
National Gallery of Art
National Labor Relations Board
National Mediation Board
Occupational Safety and Health Review Commission
Office of Economic Opportunity
President's Committee on Employment of the Handicapped
Railroad Retirement Board
Special Action Office for Drug Abuse Prevention

Natural Resources, Energy, and Science

Energy and Science Division
Atomic Energy Commission
Department of Commerce (National Oceanic and Atmospheric Administration)
Energy coordination and science strategy
Federal Power Commission
Interior
  Power marketing agencies:
    Alaska Power Administration
    Bonneville Power Administration
    Southeastern Power Administration
    Southwestern Power Administration
Marine Mammal Commission
National Advisory Committee on Oceans and Atmosphere
National Aeronautics and Space Administration
National Commission on Materials Policy
National Science Foundation
Smithsonian Institution
Tennessee Valley Authority

with whom she deals at NIH, but she believes that her lack of an academic background in science is an asset to doing her job. Many officials at NIH would, of course, prefer to see a scientist in her position, but most of them are realistic enough to know that is not going to happen.

Stone is involved in the budget process from the very beginning of its yearly cycle, and as she goes from institute to institute to review its programs, she asks a lot of questions that make people uncomfortable. (O'Neill says that OMB is asking questions today that are a lot tougher than the ones it asked in 1967, when he first worked in the budget office; NIH scientists agree.)

As Ann Stone makes her rounds, she asks for a description of institute programs, demanding a definition of what they are and where they are supposed to be going. She asks institute officials how they measure progress. She asks what the alternatives to any given program are and, as part of that, suggests that scientists start asking whether the federal government should be supporting certain programs at all.

The latter question has become something of a refrain for this Administration. It was the question OMB asked when it decided to phase out NIH training grants. Scientists defended the program that supported young biologists, but OMB decided that there was no reason taxpayers should pick up the bill for individuals who will go on to earn good incomes, especially since they believe the nation is not facing a shortage of biomedical researchers. When the Administration was subsequently persuaded to relent a little and restore some of the training money, OMB was there to make sure NIH executed the "new" training program in accordance with policy. The Administration had decided that training money should go only to persons working in areas in which there is a shortage of researchers, and NIH was instructed to determine which ones they are.

Instead of trusting NIH to do that job, OMB stepped in and asked a slew of detailed questions about what the areas of shortage are and how anybody had determined that and what scientific accomplishments might be anticipated by training persons in one field rather than another. The questions offended many NIH scientists who believe that no one at OMB knows enough to evaluate such scientific judgments. Officials at OMB say that the people at NIH have it all wrong. It was never their intention to ask NIH to make substantive changes as far as its scientific assessment goes. Rather, OMB asked those questions to force the scientists to think about what they were doing, to force them to consider alternatives and to set goals. The OMB intends to keep asking such questions until everybody learns.

Although Stone's questions are offensive, at times, to scientists who are put off by her cross-examination, what galls them more is their conviction that she and her immediate supervisor,

Briefing

Adamantly Vague on Chemicals and Health

What probably will be the last report to emanate from the now-defunct President's Science Advisory Committee (PSAC) was released on 9 January after 3½ years of preparation at an estimated cost of $60,000. Titled *Chemicals & Health*, the report is the work of a PSAC panel bearing that name. John W. Tukey, who is a professor of statistics at Princeton University, was chairman of the panel, which included scientists and administrators from the chemical industry, universities, and government.

The panel was convened in 1970, at a time when new toxic substances in food additives and agricultural chemicals seemed to be cropping up every week and when the chemical industry was moaning that hasty regulation, or overregulation, by the government could hurt business. Science adviser Lee A. DuBridge decided PSAC should come up with some advice on how much safety government regulators should strive for, where more research is needed, and what organizational arrangements are most desirable. Panel members would be after DuBridge's successor, Edward E. David, Jr., took office.

The resulting report appears to be a compendium of the usual formulas that science advisory committees are always coming up with: eloquent arguments in favor of new knowledge, calls for increased funding of research, requests for further study of bureaucratic problems, and so forth. In addition, the report frequently laments the hasty, often partially informed manner in which government regulators decide what substances to ban. To counter this, the report urges more layers of bureaucracy, procedures more adaptable to changing knowledge, and, of course, more research.

However, some officials who have been utilizing the report in a nearly identical, draft form that has circulated within the government for about a year, say differently. They think that some of the substantive chapters—on food additives, on household products, and on the economics of the relevant industries—have been helpful to those in the government who deal with regulation of chemicals. The report reaches a commonsensical general conclusion, that government regulators should pay more attention to hazards that affect the largest number of people—smoking, alcohol, poor diet—and spend relatively less time reacting to "vivid accounts of nonexistent or very minor threats to health." Finally, tucked away in the "Major Issues" section is the suggestion that the government try a little technological forecasting. A "small, but highly capable, analytically oriented group," should be established which would examine trends in the relevant chemical industries and match them against priorities in health effects research. For the cognoscenti, then, in the Department of Agriculture, the Food and Drug Administration, and the Environmental Protection Agency, who grapple with these problems daily, the report offers some interesting advice.

However, the citizen or congressman—who wants to know whether Congress should pass a toxic substances control act (which it has deliberated for years), or whether it should weaken the Delaney Amendment, which in effect prohibits carcinogens in food, or, finally, whether it should alter the sketchy and controversial numerical standards in the auto emissions section of the 1970 Clean Air Act—will not find the answers here. *Chemicals & Health* discusses these controversial matters only in the most general, neutral terms, and members of the panel, at a press conference to release the report, remained adamantly vague in response to questions on these topics.—D.S.

Victor Zafra, are ultimately making decisions about what NIH is going to do. At the very least, they think that O'Neill should be directly involved every step of the way, and they are not happy about having their point of view filtered through Stone and Zafra, who also lacks academic credentials in science. In short, senior NIH scientists resent the fact that individuals whom they sometimes refer to as "just a couple of young kids" can tell them what to do.

Staffers at OMB like to play it down, but the truth is that their influence on the activities of anyone who works for the government is tremendous. The OMB's control of the budget is only one aspect of its power. It also controls legislation that the Administration proposes in order to be sure it is in line with what the President wants. If, for example, HEW were to draw up a bill for more work in population studies, and the OMB were to decide that it did not fit Presidential policy, there would be no bill.

In the same way, OMB controls what government officials say when they go before Congress to testify on pending legislation. For instance, Charles Edwards, the assistant secretary of HEW for health, is asked to appear to testify on a bill dealing with federal support of research. He prepares a statement and sends it over to OMB. There, it is read and circulated to the heads of any agencies other than HEW that might be affected by the legislation. If there are disagreements, O'Neill might call everyone together to iron them out. If the problems cannot be solved, the testimony might be sent over to the White House for a decision. But whatever happens, neither Edwards, nor the director of NIH, nor anyone else can testify unless OMB OK's his statement. It is not uncommon for someone to find himself publicly saying the opposite of what he thinks because he lost a battle with OMB.

It is fine for O'Neill to say, as he did at the Institute of Medicine meeting, "I'm disappointed in scientists for not standing up for their point of view when it differs from the party line." It is fine, that is, as long as they do not work for the government. Government scientists who swerve from the party line laid down by the OMB can find themselves in trouble. Such is the power of the Office of Management and Budget.—BARBARA J. CULLITON

Off-Road Vehicles: A Compromise Plan for the California Desert

The federal Bureau of Land Management (BLM), a small agency with a vaguely defined mission and weak authority, has been coming to generous terms with off-road vehicle (ORV) enthusiasts in Southern California, many of whom engage in practices and observances as bizarre as those of any people on earth.

The BLM is responsible for managing the use of most of the vast Mojave or California Desert, which lies on the other side of the San Gabriel and San Bernardino mountains from Los Angeles. The ORV people, among whom the motorcyclists devoted to competitive racing are a highly visible and important element, have until recently been free to use the BLM lands as they pleased. Not until September 1972 did the BLM even begin requiring the organizers of competitive events to obtain special land use permits. During the ensuing 12 months, there were 151 such events, involving more than 67,000 participants and 189,000 spectators.

The ORV interim management plan promulgated by the BLM on 1 November, however, is supposed to limit use of ORV's significantly, with only about one-eighth of the BLM lands now to be open to unrestricted use. But many questions have been raised by environmentalists about the liberality of the plan and about the feasibility of enforcement.

Further, one might infer from the plan that the "multiple use" philosophy to which the BLM adheres is so broadly inclusive that room can be found even for activities which admittedly are dangerous and destructive, to say nothing of their being a startling incongruity on the desert scene.

The California Desert covers some 17 million acres, or 25,000 square miles, and reaches from the southern Sierra Nevadas to the Colorado River. The desert terrain is varied and often rough. There are broad, smoothly floored basins and salt flats, sand dunes, rugged hills, and steep mountains. Rainfall is scant (less than 5 inches a year), summers are hot, and winter days are usually mild. Widely spaced low shrubs, especially creosote bushes and burroweed, grow in the basins. Cactus is found on rocky, southward-facing slopes, and in some areas the unusual Joshua tree is abundant. Certain very rare botanical specimens have been discovered, as in the case of a stand of crucifixion thorn, a plant otherwise found only in Israel.

The desert harbors a surprisingly diverse animal life, there being 50 species of reptiles, some 170 species of birds, and more than 80 kinds of mammals, including bighorn sheep. Significant archeological treasures, including the pictographs and petroglyphs of early Indians, also have been discovered. The California Desert is, in sum, a place of much scientific interest and beauty.

But, as BLM spokesmen like to say, the desert is regarded by 11 million Southern Californians as "their own backyard." With most of it being part of the unreserved public domain, this region has been open to increasingly heavy recreational use. Gordon W. Flint, information officer at BLM's Riverside office, says that, whereas there were 4.8 million visitor-days of use in 1968, the total in 1973 came to 13 million.

In Flint's view, the desert represents freedom for millions of people seeking a weekend respite from humdrum jobs and an escape from the urban environment. Yet, as the available information on ORV use and ownership in California makes all too clear, many of these people are not seeking quiet and solitude. Indeed, if Henry David Thoreau were suddenly to appear before them, he might be flattened by one of their machines.