

Mr. Keyworth goes to Washington

The first of two parts

This newcomer to Washington may soon be the most influential man in U. S. science
BY JANET RALOFF



Julie Miller

"I never had any terribly great ambition to become part of the Washington scene," explains the 41-year-old nuclear physicist. Yet here he is in a large, cluttered room in the Old Executive Office Building adjacent to the White House. Until six weeks ago, George Keyworth headed the physics and laser-fusion divisions at the Los Alamos National Laboratory. Now he's dealing with White House policy issues, meeting with the President and sitting in on meetings of the National Security Council and the Cabinet. Pending confirmation by the Senate, expected within the next few weeks, Keyworth will become Ronald Reagan's personal science adviser.

If confirmed, Keyworth would be the main conduit through which the nation's researchers talk to the President. As director of the Office of Science and Technology Policy, his imprint would be left on administration policies. *SCIENCE NEWS* interviewed Keyworth in a search for clues as to how his office may begin shaping policies affecting U. S. science and technology.

Keyworth describes himself as "not a highly political individual." Not yet, maybe, but his new post probably will change that. Regardless how pure the individual is who undertakes that position, before he leaves he will have gotten his nose rubbed in the dirt of bargaining and power brokering that accompanies — if not defines — hard-ball politics. Or so suggests William D. Carey, executive officer of the American Association for the Advancement of Science who served for 26 years, under five presidents, attending to presidential-staff work in the Bureau of the Budget.

"Objectivity is the boast of science," Carey says "and the working assumption is that the Presidential Science Advisor comes to the White House without the stain of original sin. He is an innocent in fast company, a paragon of virtue." But he also notes that "this scarcely represents real life. . . . If a science adviser is going to count, he must be a foot soldier marching to the program of the President, not the company chaplain."

What's more, explains Isidor Rabi, science advice "does not mean, as far as the President is concerned, technical advice in the sense of detailed explanations of the operation of the laws of the universe or detailed descriptions of various devices. The advice one gives to the President must be broadly conceived and it must speak to the President in the sense of a translation into political terms of basic scientific,

technical developments in all fields in which his decisions will be important, both for the national security and the national welfare." Rabi, a 1944 Nobel laureate in physics, speaks from experience. He was chairman of the original Science Advisory Committee from 1953 to 1957 and a member of the President's Science Advisory Committee until 1968.

In the book, *Science Advice to the President*, Rabi also suggests that a science adviser "must try to be a part of the President's mind-set" and subordinate any of his own preferences — political or societal, to the needs of the President.

For Keyworth, this task should not prove insurmountable. "I'm very impressed by the President's capabilities," he says, "and the opportunity to be part of this administration was an inspiration." He adds that, "my philosophy is in complete consonance with the President's." And it's Keyworth's confidence in Reagan as "a born leader, a gifted leader," that he offers as explanation for why he "became a follower." Keyworth admitted this softly, almost sheepishly, as if to acknowledge with embarrassment how corny such an unqualified accolade may sound.

There's no sheepishness, however, when Keyworth sizes up science or speculates about roads this administration might follow in shaping science policy over the next four years.

"Back in the fifties, when we were the sole technological leader in the world, it was natural that we expected to be preeminent and to play a purely leadership role across the spectrum of science and technology," Keyworth says. But now that the rest of the world has recovered from World War II, that's all changing, he says. In fact, Japan and all of Europe have become as developed as the United States.

"It would seem to me an unrealistic allocation of our resources — possibly even presumptuous — for us to try to aspire to

the same sort of preeminence across all the sciences that we had in the fifties. But I do not mean, as I have been quoted as saying, that America's no longer capable of preeminence. My lord, we are the world leader in science. What I want to ensure is that we continue as the world leader. I don't want to see our resources distributed so thinly that we are guaranteed to ultimately become mediocre."

How might that goal be translated into policy? "I'd try to identify those areas of all the sciences where probability of breakthrough — of major impact on our ability to provide new knowledge and new understanding of nature — is highest, or where it is simply a field of science that we need to support American technology."

"I refer to the criteria of excellence and pertinence," Keyworth says. "Excellence is the sole basis by which you judge the quality of science — the excellence of investigators, the excellence of the field. As far as applied research, the primary criterion is pertinence." And Keyworth would have those criteria determine priorities in federal research funding.

Measuring excellence "is something that scientists are trained to do," Keyworth explains. "They know how to use this criterion. And if you can get them in an objective environment, and give them the boundary conditions and directions to solve a problem" — such as the allocation of tight federal research dollars — "they will do it very well." Keyworth says he would like to see the science and engineering communities begin examining their own ranks for areas of excellence and pertinence. He will be seeking such assessments soon.

"What I am suggesting is that the government-management in tandem with the scientific community should identify those areas where we would like to see an incremental impetus and those areas where perhaps we are putting too much emphasis today." Keyworth stressed, "We are not talking about asking the scientific community, nor permitting government, to go in with a machete and say, 'This field is, by some arbitrary rule, deemed no longer productive so we're going to cut it in half.' Nor that we're going to take this other field that does seem productive and double it. What I am talking about is small incremental changes," perhaps five percent increments. "I want to see the promising areas of sciences given, for example, a five percent real increase compensated by a five percent real decrease in an area where the indicated promise — which can

be judged by the last 10 or 15 years of performance — is smaller."

He said this would be different, though consistent, with budget allocation schemes employed by the Office of Management and Budget in drawing up the administration's revised budget proposals this year. "Considering the magnitude of the budget cuts proposed by [President Reagan] as part of his economic recovery strategy, I think that most R&D functions fared quite well in the revised budget. And in cases where cuts were made, they were made 'surgically' after careful review, and are consistent with the philosophy I've discussed."

There is, however, one exception. Federal funding for research in the social sciences did feel the machete's blade. "The

only thing I will say is that it's the only major area where the machete approach has been used."

Will Keyworth advocate changes on behalf of the slashed support for social sciences in the next budgetary cycle? Certainly not on advocacy grounds, he assures, stressing that his job is not that of an advocate for science. "[N]owhere is it indicated that OSTP or its director is to represent the interests of the science community," Keyworth said in an AAAS R&D Colloquium address last month (SN: 7/4/81, p. 4). "It is to the decided advantage of the science and engineering communities to have a presidential adviser that is looked upon by the White House, not as a political pleader for those communities — an 'inside lobbyist,' if you will

— but as an objective adviser who can act as an effective link to them."

"I'm not sure that the scientific and engineering communities need an advocate more than what it already has in a number of well-organized professional associations," Keyworth adds. He does admit, however, that not all disciplines are represented equally well by their professional organizations. "From my experience," he says, "the engineering community is far better organized than the sciences are. And certainly the social sciences have not been noted for exactly having their act together."

While not lobbying for them, Keyworth has announced that he will maintain an "open door" policy for those who are. Already he's been tapped by the speech and cocktail circuit — collecting business cards and contacts along the way. "It will be imperative that I maintain a broad and continuing contact with the science and engineering communities ... and call on them often."

One idea he has for calling on the resources outside of his office would involve setting up ad hoc committees. "I am at least seriously thinking now of setting up a standing committee of people across the disciplines — something like 20 people — who we can invite to Washington perhaps once a month," Keyworth told SCIENCE NEWS. Members would be briefed regularly on brewing issues "so that when a specific issue comes up that has to be addressed by an ad hoc panel, at least a substantial fraction of that ad hoc panel can be set up with people from the standing committee." Keyworth hopes this will overcome the standard drawback in looking to ad hoc panels for outside help. A major issue may erupt and require action more quickly than an ad hoc committee can be assembled and adequately briefed. Keyworth ought to know. His life has been consumed by that type of intensive briefing since he arrived in Washington.

Most White House policy development on which Keyworth will be called in to advise will involve a science-and-technology component, but "none of them have a 100-percent science-and-technology component," Keyworth notes. "I didn't quite realize that before I came here. It's important for me now to get to know who can address the other components, to work with them and to learn their priorities."

"Questions about my lack of experience in this job are highly justified," he offers without apology. "My experience in Washington science policy is by no means competitive," though "my professional credentials as a scientist are commensurate." Keyworth has been attempting to make up for his perceived shortcoming by devoting himself to study the way a student crams for finals. "I haven't been sleeping a lot," he says, and still "I am right now something over 300 telephone calls behind." □

Next: *Priorities: Programs and problems*

Building Political Savvy into Science

"The science community, as articulate as it may be, is heavily outnumbered and must learn to make a stronger case for its cause before the Congress," says George Keyworth. Donald Stein, a AAAS congressional fellow, agrees and is prepared to do something about it. Finishing up a year's leave from Clark University in Worcester, Mass., he and six other congressional fellows have organized the Science and Technology Political Action Committee (SCITEC-PAC) — a voluntary, nonprofit, unincorporated committee for researchers and others concerned with the advancement of science and technology.

"We want to collaborate not compete" with existing professional societies like the AAAS and American Chemical Society, says Stein. In fact, he sees one primary advantage of SCITEC-PAC over the others: It won't be "restricted to that kind of 'gentle persuasion'" the others must use because of their tax status.

The more than two million scientists and engineers who make up the nation's research community "represent the last major professional group in the nation whose interests are not aggressively presented to the federal government," SCITEC-PAC's organizers claim. They hope to "convince scientists that it's worth their time and money to get involved" in determining their own destiny. Stein says, because "scientists don't have a strong champion on the Hill anymore."

Born only a few months ago, SCITEC-PAC has been coordinated and financed on a shoestring. And its busy organizers have collaborated at nights and on weekends to avoid charges that their time is being paid for by the partisan offices they serve by day.

The group, which will canvass the research community with its first, direct-mail campaign during late August or September, hopes to recruit at least 10,000 members. Money will go to fund political candidates for federal office who have demonstrated a sensitivity to the problems, issues and goals of the research community.

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