

Federal Science: Differences of Opinion in the Highest Councils

Conflicting estimates of how the Nixon Administration is treating science emerged this month in a dispute between the head of the National Academy of Sciences and the President's science advisor. Though the dispute followed a polite, indirect form, it nevertheless reveals a fundamental disagreement over key elements of the Nixon Administration's treatment of research. And while the participants later tried to downgrade the significance of the disagreement, one of the disputants, Philip Handler, president of the Academy, said, "I think there's a profound difference between us" on the central issue of support of graduate education.

Round one of the dispute occurred early in December when the Academy released its 526-page report *The Life Sciences*. (That report, a plea for increased funding, was discussed in the 18 December issue of *Science*.) At a press conference held to publicize the report, Handler made some remarks concerning government support of science, and these remarks were later reported—inaccurately in the opinion of some Academy officials—as an attack on the Nixon Administration. *The New York Times*, on 3 December, for example, carried an article headlined: "Science Leader Criticizes Nixon on Lagging Research." The article said Handler had charged that the Nixon Administration was allowing the American scientific complex to drift toward decay. It also quoted Handler as saying that science is not "a high priority item" in the Administration right now and that, as a result, "the system is squealing with pain." So quotable was that "squealing with pain" statement that it was reprinted in the *Sunday Times* on 6 December as one of the week's outstanding quotes.

Round two in the dispute occurred on 16 December, when the *Times* printed a brief rebuttal letter from Edward E. David, Jr., the White House science advisor. David, who had not attended the original press conference and thus could not be sure whether Handler had been accurately quoted,

was very careful not to disagree with Handler directly. But his letter complained that the *Times*' original story conveyed "a very misleading impression . . . about the commitment of the Nixon Administration to science." David asserted that, in actuality, science is "among the high priorities of the Administration."

Officials on both sides of the dispute, when queried last week, tended to play down the significance of the disagreement. An official of the Academy lamented that the news coverage had given "an unfortunate slant to what Handler said—he wasn't scolding anybody." And a spokesman for the White House Office of Science and Technology (OST), who had heard a tape recording of the original press conference, said he was not aware of any major disagreement between the Academy and the Administration. "Listening to the tape we get a very different impression of what Phil really said," the OST spokesman explained. "To the extent that he expressed unhappiness, it was pretty oblique. It was there, but not quite as starkly as it emerged in the press."

The David Appraisal

Even Science Advisor David stressed that no great "gulf" has developed between his office and the Academy. "I don't think there's any great controversy," he said. "Phil Handler and I are on very good terms. I have no objection to his saying whatever he wants to. That's his function. Anybody in a position of authority or knowledge ought, in a responsible way, to say what he thinks. That's of value to us."

So what does the episode add up to? On the one hand, it seems fair to say that Handler's comments about the Administration constituted something less than an all-out, no-holds-barred attack. Handler made no blanket indictment of the Administration. In fact, according to excerpts from a taped transcript of the press conference made available by the Academy, Handler at one point went out of his way to stress

that he does not believe the Administration is antiscience. When asked what factors had caused the slowdown in federal science funding, Handler cited first, the government's concern with stemming inflation and second, the current national mood concerning misuse of technology. "The reason for the brake on expenditures is not reflective of the notion that either political party—this President or his predecessor, this Congress or its predecessor—is antiscience," Handler said. "I don't believe for one moment that's what it's all about. It's simply that science, all of science, lies within the controllable expenditures of the federal government."

Core of Disagreement

Nevertheless, behind all the bowing and polite remarks, there remains a core of fundamental disagreement as to whether the Nixon Administration is providing adequate support for science and science education. To state the situation starkly, Handler believes the Administration is shortchanging science, while the Administration believes Handler is crying wolf. "Phil uses his podium to cry woe, gloom, and doom," snorts one Administration science official. "He's critical because the science budget isn't growing at 15 percent a year."

One of the biggest differences between Handler and the Nixon Administration concerns the Administration's policy toward the support of graduate education. Handler particularly questions the wisdom of the Administration's decision to cut back sharply last year on training grants. At the press conference in early December, Handler noted that the Academy's report *The Life Sciences* states that if there have to be budget cuts "we prefer having the cut taken in the research-supporting money than having the cut taken in the training grants." But the actual trend in federal budgeting, Handler noted, has been going precisely the other way. Handler added that "this report defends as vigorously as it can . . . the notion that those training grants . . . represent a quite remarkable invention and that they are an ideal way to support this system if you want this system to function. Whereas this administration, from all I can tell, does not share our beliefs in this regard. I think there's a profound difference between us."

Science Advisor David, in his letter of rebuttal, did not specifically answer

Handler's complaints about training grant cutbacks. But another Administration science official scoffed: "Phil hasn't changed his tune. He still wants more support for graduate students. My God, people are out of work all over the place. What's the justification for training still more people?"

David's rebuttal letter cited two bits of evidence to indicate that the Nixon Administration has a high regard for science. It said that Nixon's budget for fiscal 1971 "showed an 8.7 percent increase over the previous year in funds obligated for research and development projects carried out at universities and colleges." And it said that "the National Science Foundation, 'anchor man' among the Federal agencies in the support of basic research, has reached an all-time high in its budget for the current year." The letter acknowledged that there have been "internal shifts in the funding of science—some of them undoubtedly painful to those affected." These shifts were characterized as away from defense and space activities and toward various social needs such as housing, transportation, and environmental quality. But David's letter concluded that: "At a time when all funding is severely

limited because of the strenuous effort to fight inflation, science has fared very well and in doing so is self-evidently among the high priorities of the Administration."

Handler would clearly not agree. At one point in his press conference he warned that "it's not in the national interest to watch this system [of scientific enterprise] decay for lack of supporting funds." At another point, he charged that "science does not have a high priority at this moment" in the Office of Management and Budget, which, more than any other White House office, is responsible for determining how much money is budgeted for science.

Sources on both sides of the dispute are inclined to believe that the differences between David and Handler reflect, at least partly, the fact that they occupy different positions. And the dispute does indeed point up what appears to be an increasingly independent and critical role toward the government played by the Academy president. In the opinion of George B. Kistiakowsky, former science advisor to the late President Eisenhower and currently vice-president of the Academy, Handler has been taking the Academy on a

more independent tack than his predecessors. While Kistiakowsky recalls that there have been occasions in the past when the Academy has tackled the federal government head on, he says that "by and large" other recent Academy presidents "envisaged the Academy as much more a part of the federal establishment than Handler does." Kistiakowsky said he is "delighted" that Handler sees the Academy as "independent and as a spokesman for the broad scientific community."

Handler has not hesitated to criticize the Administration on specific issues in the recent past, at times employing what some have regarded as colorful and extravagant language. In September 1969, for example, he predicted that there would be "panic in medical schools all over the country" in the wake of budget cutbacks ordered by President Nixon. Handler has also not hesitated to criticize his own colleagues for making self-serving or misleading pleas for support. Thus there are apt to be further disagreements between Handler and the Administration as new science issues arise—a prospect which some observers view with alarm, but others regard as a healthy sign.

—PHILIP M. BOFFEY

Aerospace: Unemployed Scientists, Engineers Have No Place to Go

Santa Clara County on the San Francisco peninsula is one of the places where the term technological unemployment has taken on a new, painful meaning. The economy of the so-called mid-peninsula area, home of the Lockheed Missiles and Space Company, is dominated by aerospace and electronics industries, and cutbacks in defense and space contracts have resulted in unprecedented unemployment among scientists and engineers.

The phenomenon is by no means unique to the county which stretches from Palo Alto to south of San Jose. Layoffs from Boeing operations in Seattle probably affect a higher proportion of the local population, and the aerospace concentrations around

San Diego and Los Angeles have been hard hit. But the unemployment surge in Santa Clara County seems to have had a particularly intense effect on professionals since, just as in the Route 128 area outside Boston, research and development activities have tended to be high relative to production in high technology industry. (Santa Clara County has been second in the state only to the Marin County suburbs of San Francisco in the percentage of employed persons classified as professional, technical, and kindred workers.)

Employment fluctuations, of course, have been chronic in aerospace firms, and aerospace men have been accustomed to moving from one project to the next, often from one company to

another. The difference now, observers say, is that no new major projects are afoot and that R & D men involved in programs approaching completion find no job opportunities anywhere in the industry. The situation caused by the ebb in federal contracts has been compounded by a slump in demand for commercial aircraft. Furthermore, the last aerospace industry low occurred in 1964–65, when the general economy was more robust and better able to absorb professionals.

In broad outline, the depressed state of the job market is readily documented. Unemployment in California dropped slightly in November to 6.9 percent from 7.2 percent in October but still compared unfavorably with the national rate of 5.8 percent. About two-fifths of the manufacturing jobs in the state are in defense-related industries, and in Santa Clara County three-fifths of all jobs in manufacturing or about 70,000 people are in defense or space work.

Details of the plight of professionals are, however, elusive. One difficulty is that "standard industrial categories"