AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Science serves its readers as a forum for the presentation and discussion of important issues related to the advancement of science, including the presentation of minority or conflicting points of view, rather than by publishing only material on which a consensus has been reached. Accordingly, all articles published in *Science*—including editorials, news and comment, and book reviews—are signed and reflect the individual views of the authors and not official points of view adopted by the AAAS or the institutions with which the authors are affiliated.

Editorial Board

MELVIN CALVIN ERNEST COURANT FARRINGTON DANIELS JOHN T. EDSALL DAVID R. GODDARD ALEXANDER HOLLAENDER ROBERT JASTROW EDWIN M. LERNER II WILLARD F. LIBBY

NEAL E. MILLER PHILIP M. MORSE COLIN S. PITTENDRIGH KENNETH S. PITZER DEWITT STETTEN, JR. WILLIAM L. STRAUS, JR. EDWARD L. TATUM JOHN R. WINCKLER CLARENCE M. ZENER

Editorial Staff

Editor Philip H. Abelson

Publisher Business Manager DAEL WOLFLE HANS NUSSBAUM

Managing Editor: ROBERT V. ORMES

Assistant Editors: Ellen E. Murphy, John E. Ringle

Assistant to the Editor: NANCY TEIMOURIAN

News and Comment: DANIEL S. GREENBERG, JOHN WALSH, ELINOR LANGER, MARION ZEIGER, ROSEMARY GALLI

Europe: VICTOR K. MCELHENY, Flat 3, 18 Kensington Court Place, London, W.8, England (Western 5360)

Book Reviews: SARAH S. DEES

Director

EARL J. SCHERAGO

Editorial Assistants: ISABELLA BOULDIN, ELEANORE BUTZ, SYLVIA EBERHART, GRAYCE FINGER, NANCY HAMILTON, OLIVER HEATWOLE, ANNE HOLDSWORTH, MARCIA ISAAK, RUTH KINGERLEE, HOWARD NATHEN-SON, EDGAR RICH

Advertising Staff

-

Production Manager Raymonde Salama

Sales: New York, N.Y., 11 W. 42 St. (212-PE-6-1858): RICHARD L. CHARLES, ROBERT S. BUGBEE Scotch Plains, N.J., 12 Unami Lane (201-889-4873): C. RICHARD CALLIS

Chicago, Ill., 6 W. Ontario St. (312-DE-7-4973): HERBERT BURKLAND

Los Angeles 45, Calif., 8255 Beverly Blvd. (213-653-9817); WINN NANCE

EDITORIAL CORRESPONDENCE: 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Phone: 202-387-7171. Cable: Advancesci, Washington, Copies of "Instructions for Contributors" can be obtained from the editorial office. ADVERTISING CORRESPONDENCE: Rm. 1740, 11 W. 42 St., New York, N.Y. 10036. Phone: 212-PE 6-1858.

Only One Side of the Question

In the past year Congress has wrestled with problems of controlling and legislating for research and development funds, but achievements so far appear to be minuscule. One problem which has been scarcely considered is that of obtaining a multiplicity of well-founded opinions on scientific and technical programs. The authorization hearings for the \$5 billion space program illustrate the point. The House and Senate committees heard extensive testimony from government witnesses representing, for example, the National Aeronautics and Space Administration. Although a majority of the nation's scientists question facets of the program, no opposing witnesses appeared. In part, this was because they were not invited; in part, because they did not seek a hearing.

SCIENCE

In contrast, committees considering legislation in areas other than science and technology often find that many citizens ask to testify. In matters in which conflicts of self-interest exist, issues usually are well examined. For instance, committees considering legislation concerned with labor and management are presented with expert testimony from both sides. Many organizations support staffs that compile reports, prepare presentations and rebuttals, and look for special opportunities to advance their cause. In an effort to triumph, the opponents may propose fruitful new ideas. The public and Congress emerge with a sounder view of the factors involved.

There are several reasons why scientists do not seek to testify at hearings on research and development legislation. Most scientists are unaware of the schedule of impending hearings and unfamiliar with mechanisms for obtaining an audience. Only a limited number feel competent to make judgments in the diverse, highly technical areas. With few exceptions there are no staffs to aid in preparation of material. Only when highly emotional issues, such as fallout, are involved is there a semblance of broad response. A major reason why research and development legislation is not more adequately discussed is a lack of evident immediate clash of self-interest among scientists. The self-interest of those who advocate expenditures is obvious, but who makes the probing counterargument? At present, it comes not from informed witnesses but from congressmen, whose principal wellworn line is that we are spending too much money on science in general.

Failure of scientists publicly to criticize to any appreciable degree programs many deem ill-judged often stems from analysis of the balance sheet of their own self-interest. On the positive side is the consideration that the long-term interest of their profession and the nation dictates that unwise expenditures not be made. If the public loses confidence in the integrity of scientists, the sequel could be calamitous for all. But this is a nebulous possibility which does not outweigh the realities of the present. The witness in questioning the wisdom of the establishment pays a price and incurs hazards. He is diverted from his professional activities. He stirs the enmity of powerful foes. He fears that reprisals may extend beyond him to his institution. Perhaps he fears shadows, but in a day when almost all research institutions are highly dependent on federal funds, prudence seems to dictate silence.—PHILIP H. ABELSON