

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

ROBERT L. BOWMAN	EVERETT I. MENDELSON
JOSEPH W. CHAMBERLAIN	NEAL E. MILLER
JOHN T. EDSALL	JOHN R. PIERCE
EMIL HAURY	KENNETH S. PITZER
ALEXANDER HOLLAENDER	ALEXANDER RICH
WILLARD F. LIBBY	DEWITT STETTIN, JR.
GORDON J. F. MACDONALD	CLARENCE M. ZENER

Editorial Staff

Editor

PHILIP H. ABELSON

Publisher

DAEL WOLFE

Business Manager

HANS NUSSBAUM

Managing Editor: ROBERT V. ORMES

Assistant Editors: ELLEN E. MURPHY, JOHN E. RINGLE

Assistant to the Editor: NANCY TEIMOURIAN

News Editor: DANIEL S. GREENBERG

News and Comment: JOHN WALSH*, LUTHER J. CARTER, BRYCE NELSON, PHILIP M. BOFFEY, KATHLEEN SPERRY, FRANK CLIFFORD, GILLIAN PARRILLO, Contributing correspondents: ELINOR LANGER, NIGEL CALDER, VICTOR K. McELHENY, ROBERT J. SAMUELSON

Book Reviews: SYLVIA EBERHART

Editorial Assistants: JOANNE BELK, ISABELLA BOULDIN, ELEANORE BUTZ, BEN CARLIN, HELEN CARTER, GRACE FINGER, NANCY HAMILTON, OLIVER HEATWOLE, ANNE HOLDSWORTH, KONSLYNNIETTA HUTCHINSON, ELEANOR JOHNSON, PAULA LECKY, KATHERINE LIVINGSTON, HELEN OLNEY, SANDRA RATTLEY, LEAH RYAN, BARBARA SHEFFER

*European Office: Lime Tree Farm, East Hagbourne, Berkshire, England. Telephone Didcot 3317

Advertising Staff

Director

EARL J. SCHERAGO

Production Manager

ROSE MARIE ROMAGNOLO

Advertising Sales Manager: RICHARD L. CHARLES

Sales: New York, N.Y., 11 W. 42 St. (212-PE-6-1858): ROBERT S. BUGBEE

Scotch Plains, N.J., 12 Unami Lane (201-889-4873): C. RICHARD CALLIS

Medfield, Mass. 02052, 4 Rolling Lane (617-359-2370): RICHARD M. EZEQUELLE

Chicago, Ill. 60611, 919 N. Michigan Ave., Room 426 (312-DE-7-4973): HERBERT L. BURKLUND

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.

The Science Establishment: Where Is It Headed?*

The Eisenhower and Kennedy years were particularly good ones for science support. Government research and development expenditures increased by an average of 15.1 percent during the Eisenhower administration, and 16.6 percent during the Kennedy years. Under President Johnson the percentage has continued to increase, but only at a 3-percent annual average, which is less than the cost-of-living escalation. Particularly significant is the current fiscal year, which actually saw a percentage decline in federal R & D money of 1.2 percent. For next year, the total is up 4.6 percent, to \$17.3 billion, about 11 percent of the overall federal budget. It is to be noted that R & D's percentage of the total budget has been declining slowly but steadily since President Johnson's first budget in fiscal year 1965.

But percentages and even money totals alone fail to reveal three other significant trends in federal R & D spending: (i) whereas formerly the bulk of the money was spent by the Pentagon and NASA, now more than half of the R & D funds are controlled by other agencies; (ii) whereas previously the share for social sciences was negligible, the fiscal year 1969 budget boosts it to \$238 million; (iii) whereas basic research claimed a lion's share in the past, the fiscal year 1969 budget puts an increasing emphasis on applied research. On the other hand, spending by NIH increased by only 1 percent, with an Administration directive to put more emphasis on improved patient-care techniques and less on long-range research.

What has caused this leveling off and change in emphasis of federal R & D spending? My three answers are these. First, the heavy financial cost of the Vietnam war is draining our resources and manpower. Its consequences are felt in every corner of this country, and they increase day by day. The public's love affair with science was cooling anyway, but there is no doubt that the added impact of the war has accelerated the process. Second, events in recent years have focused attention on the neglected problems of our domestic environment. In response to public demands, both the President and Congress want more direct and visible results from R & D dollars. Such things as pollution control, faster and safer transportation, better housing, and crime control now are at the top of the priority list. Third, there seems to be a new emphasis on achieving national goals through R & D, and considerably less concern about the acquisition of knowledge for its own sake. Such concepts as world leadership in science are rather nebulous to the average citizen as compared with immediate social and political goals.

What can the scientific community do about this? I believe it must go back to the equation $PE = PM$ —public esteem equals public money—and consciously rekindle some of the public's former affection for science. The scientific community should take greater pains to make clear that its efforts contribute directly and indirectly to the public good. Research priorities should be adjusted, whenever possible, to the public's priorities. The public should be reminded ceaselessly of scientists' vital contributions to national security. There is no function more appropriate for the federal government than that of providing for national defense. And the scientific community should face the problem of cost cutting as it relates to getting rid of self-perpetuating, outmoded activities and as it relates to consolidation of federal science effort.—CRAIG HOSMER

* Adapted from remarks by Craig Hosmer, ranking House Republican member of the Joint Committee on Atomic Energy, at the Neutron Cross Sections and Technology Conference, Washington, D.C., 5 March 1968.