

## American Association for the Advancement of Science

### BOARD OF DIRECTORS

PAUL M. GROSS, Retiring President, Chairman	
ALAN T. WATERMAN, President	
LAURENCE M. GOULD, President Elect	
HENRY EYRING	MINA REES
H. BENTLEY GLASS	WALTER ORR ROBERTS
DON K. PRICE	ALFRED S. ROMER
	WILLIAM W. RUBEY
PAUL E. KLOPSTEG	DAEL WOLFLE
Treasurer	Executive Officer

### SECTION VICE PRESIDENTS AND SECRETARIES

MATHEMATICS (A)	
Magnus R. Hestenes	Wallace Givens
PHYSICS (B)	
Elmer Hutchisson	Stanley S. Ballard
CHEMISTRY (C)	
Milton Orchin	S. L. Meisel
ASTRONOMY (D)	
Paul Herget	Frank Bradshaw Wood
GEOLOGY AND GEOGRAPHY (E)	
John C. Reed	Richard H. Mahard
ZOOLOGICAL SCIENCES (F)	
Dietrich Bodenstern	David W. Bishop
BOTANICAL SCIENCES (G)	
Aaron J. Sharp	Harriet B. Creighton
ANTHROPOLOGY (H)	
David A. Baerreis	Eleanor Leacock
PSYCHOLOGY (I)	
Lloyd G. Humphreys	Frank W. Finger
SOCIAL AND ECONOMIC SCIENCES (K)	
Kingsley Davis	Ithiel de Sola Pool
HISTORY AND PHILOSOPHY OF SCIENCE (L)	
Adolph Grünbaum	N. Russell Hanson
ENGINEERING (M)	
Clarence E. Davies	Leroy K. Wheelock
MEDICAL SCIENCES (N)	
Francis D. Moore	Oscar Touster
DENTISTRY (Nd)	
Paul E. Boyle	S. J. Kreshover
PHARMACEUTICAL SCIENCES (Np)	
Don E. Francke	
AGRICULTURE (O)	
A. H. Moseman	Howard B. Sprague
INDUSTRIAL SCIENCE (P)	
Alfred T. Waidelich	Allen T. Bonnell
EDUCATION (Q)	
H. E. Wise	Herbert A. Smith
INFORMATION AND COMMUNICATION (T)	
Foster E. Mohrhardt	Phyllis V. Parkins
STATISTICS (U)	
Harold Hotelling	Morris B. Ullman

### PACIFIC DIVISION

John P. Tully	Robert C. Miller
President	Secretary

### SOUTHWESTERN AND ROCKY MOUNTAIN DIVISION

Anton H. Berkman	Marlowe G. Anderson
President	Executive Secretary

### ALASKA DIVISION

Allan H. Mick	George Dahlgren
President	Executive Secretary

The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

## Confrontation

The Organization for European Economic Cooperation was established to help coordinate the economic development that Marshall Plan funds were intended to stimulate. One technique used by OEEC has been an annual review of the economic policies of each member country. Now OEEC has become OECD (Organization for Economic Cooperation and Development); Canada and the U.S. have become members; and the technique of the annual review has been extended to periodic examination of the educational policies of each country that are of concern to all member countries. The first educational confrontations were kid-glove affairs, but the second round has started off with a sharper and more penetrating analysis of scientific and engineering education in the U.S. The OECD examiners were Sir John Cockcroft, Churchill College, Oxford; Ingvar Svennilson, University of Stockholm; and A. H. Halsey, Oxford. They visited many U.S. campuses; talked with representatives of government agencies, foundations, and scientific and educational institutions; and read much documentary information concerning education in the U.S. Among the conclusions with which they confronted the U.S. representatives at the hearing recently held in Paris were the following.

High school students have too little instruction in science; too few college students specialize in science and engineering; and too few college graduates in these fields proceed to graduate study.

High school students and their parents have remarkably uncertain, even chaotic, information concerning higher education and how to achieve a good match between college requirements and offerings and student abilities and interests.

There should be more graduate fellowships, for the primary problem in any effort to increase the number of graduate students is lack of financial support, not a shortage of qualified graduates.

The quality of teaching is declining, especially in liberal arts colleges; federal government policies that have placed great emphasis upon research have contributed strongly to this trend.

Poor teaching, inadequate equipment, and insufficient research opportunities in liberal arts colleges that have good students place serious limitations on the number of future scientists.

Probably the best planning for mass higher education to be found anywhere in the world is the California program which admits any graduate of a California high school to a junior college, the top third of the high school graduates to a state college, and the top eighth to one of the University of California campuses.

Unless we overcome our mistrust of cooperative, national planning and action, higher education in the U.S. will not be able to meet the needs and demands of the next 10 years. If we are to meet these needs we must resolve the "government by stalemate" that results from congressional and congressional-executive differences on educational policy.

These criticisms constitute friendly advice from an international agency that has an effective record of improving economic conditions in its member states and that is dedicated to the proposition that improvements in scientific and technical education are a major means toward this end.—D.W.