

needs for energy, and various problems of health, housing, and transportation.

David did succeed in obtaining increased support for science in colleges and universities during a time of limited funding and inflation fighting. He persuaded President Nixon to send his first presidential message on science and technology to Congress in March 1972. However, the times were not propitious for tackling major problems effectively through science and technology (are they ever?), and, at the end of 1972, the post of Science Adviser and the Office of Science and Technology were abolished.

After this, and until this year, when he left to pursue consulting work, David was with Gould, Inc., an enterprising industry devoted to such diverse products

as batteries, electric motors, metal foil, automobile parts, and torpedoes. There he brought his expertise and that of others to the eternal task of finding new markets and making useful things better and cheaper through research and development.

David's association with Gould did not end his involvement with scientific and technological matters of national and international concern, nor his close association with education. He is a member of the Corporation of MIT and serves the University of Chicago and Georgia Tech in various ways. He is chairman of the United States-France Cooperative Science Program of the State Department and of the State Department's United States-Japan Overview Panel on Coop-

eration in Science and Technology. He is a member of the White House Advisory Group on Contribution of Technology to Economic Strength, a member of the Demonstration Task Force, Energy Research, and Development Administration, a National Security Council consultant, and is a member of other advisory groups. He is also chairman of the board of trustees of the Aerospace Corporation. Both David's government and business responsibilities have taken him frequently to Europe, including the Soviet Union and other Iron Curtain countries, and to Japan, the Republic of China and Korea. His presidency of the AAAS will take him into few areas that have not been his concern at some time, in some way, before.

1976 Report to the Association

William D. Carey

As 1976 was a year of transition in national affairs, so it was with the AAAS. Forward movement in the AAAS was reflected by both the emergence of a strong and determined Committee on Scientific Freedom and Responsibility and new proposals by the Committee on Future Directions for the agenda of the Association. Our journal, *Science*, found its way into 127 countries and held its ground as a widely quoted record of scientific advance and opinion. New ground was broken with the first of an annual series of reports on "Research and Development in the Federal Budget," followed by the first annual Science Policy Colloquium in Washington. In the field of international cooperation, the Interiencia Association produced four issues of the first cooperative western hemispheric scientific journal, *Interiencia*, and a range of impressive symposia, while AAAS also was convening a network of 14 affiliates to undertake cooperative activities in international science. Among the most satisfying successes of the year were making the Boston Annual Meeting accessible to hundreds of physically handicapped scientists and launching a major new AAAS initiative on behalf of this group of colleagues. Finally, 1976 saw the start of a

planned program of AAAS books and publications and a systematic program to increase membership, and the second successive year of budget surpluses cumulating to about \$1 million, after several years of deficit operations.

But it was not all a rose garden. New Internal Revenue Service regulations affecting journal advertising of tax-exempt organizations have created a serious contingent burden which did not exist before, complicating future fiscal estimates. Inflation did not abate rapidly enough to forestall heavy additional burdens on operating costs for future years. Membership continued to slip, although less steeply than in the preceding 2 years. New legislation relaxing lobbying restrictions on tax-exempt organizations raised policy questions for the AAAS. Participation by members in the annual elections was disappointing: only 21 percent of members voted.

A principal matter for emphasis concerns the image of the AAAS as predominantly oriented toward science, with little interest in technology. If the AAAS is unable to change this image, it is very doubtful that we can have the necessary impact on either public understanding or public policy. Nor will we succeed in

building effective working relationships with the engineering professions, which are only lightly represented in our membership, our principal publishing activities, our programs, and our annual meetings, although we work very well together in a few programs such as the Congressional Science and Technology Fellows Program.

For every dollar spent on basic scientific research, nine are spent on applied research and development. The critical national issues on the public agenda involve science to a degree, but they concern technology and its uses to a much greater degree: environmental acceptability, climate change, the uses of nuclear power, resource depletion, health and safety in the workplace, human settlements, technology for development, barriers to innovation, the economics of growth and full employment, and more. Here is where the physical and social sciences must interact with technology, and here is where the opportunity lies for an association of our breadth and openness to do things which the technological professions are less able to do by themselves. Through the journal, the annual meetings, the regional seminars, special colloquiums, joint studies, representation on the Board, Committee on Council Affairs, and standing committees—in all these ways, the AAAS must deliberately work to find a larger and more tangible part for technology in its affairs.

Another area of acute concern is the size and breadth of our membership. It is not news that our membership has been declining while our expenses have been increasing. This is a formula for big trouble for the AAAS. The membership trend must be turned around in 1977.

Even an 86 percent renewal rate, good as it is, will not stabilize our membership size or provide for growth. We have begun to tackle the problem in a systematic way, targeting our markets more carefully and running a variety of experiments to test response. We are on the verge of introducing new member benefits such as insurance and low-cost travel, and we now offer discounts for AAAS products and annual meeting registration. We are pinning high hopes on the nominations campaign, and the student component in particular, for recruiting new members. But we recognize our weaknesses too, and we are very weak in attracting members from the industrial and engineering sectors, for some of the reasons to which I have alluded. Meanwhile, every member of the AAAS who cares about the future of the Association can do something about it by recommending membership to colleagues, friends, and students.

Issues

New questions of policy continue to come up, posing fundamental questions as to the roles, responsibilities, and style of the AAAS. They arise because science and technology are now at the center of public controversy, and because this Association has a populist character. A case in point is that recent amendments to the Internal Revenue laws liberalize the long-standing limitations on lobbying by tax-exempt charitable and educational organizations. While the AAAS has long been permitted to engage in "insubstantial" lobbying without jeopardy to its tax-exempt status, the new provisions permit more extensive lobbying—up to 20 per-

cent of the first \$500,000 of income and a diminishing percentage of the balance of income. But to take advantage of these provisions, the tax-exempt organization must declare itself as a lobbying group and file with IRS to that effect.

There is a case for so declaring ourselves. We might wish to advocate or oppose legislation or regulations concerning pesticides, environmental management, DNA experimentation, safety standards in nuclear radiation, restrictions on the entry of foreign scientists for professional meetings, protection of the economic rights of dissenting scientists and engineers, or a host of other matters which impact the advancement of science.

On the other hand, we have become accustomed to the implied innocence of our tax-exempt status as a strictly charitable and educational organization, and there is more than a touch of future shock in contemplating the implications of declaring an intention to engage in lobbying, given the generally bad name that goes with the use of the term.

Clearly, the Association has a dilemma. What the AAAS does may set a pattern for some of its affiliated societies. On balance, the prudent course appears to be to face the likelihood that AAAS initiatives in a troubled society will, as time unfolds, bring us to a point where we will elect to go beyond the minimum limits of insubstantial lobbying. There is time to consider the issue in a reasoned way, but the time is not unlimited.

A policy question arises concerning the continuation of the program of Short Courses for College Teachers. The intrinsic merits are clear, the program has an enthusiastic following, and it has been managed extremely well. However, as

AAAS involvement enters its sixth year and a possible seventh is contemplated, the question arises whether we should go on indefinitely or propose to the National Science Foundation a transition under which AAAS would phase out in favor of another suitable organization. Related to the issue of the Short Courses is a more general, and growing, belief that the AAAS should, as a matter of policy, steer off from operating externally funded programs of very large size and, instead, greatly expand its usage of convening and collaborating strategies. It is always difficult to relinquish a well-funded, highly visible, and successful program, as every organization knows. In the case of the Short Courses program, it dwarfs everything else in our science education efforts. However, we would not divest it without assurance that its future is in capable hands.

Finances

The financial affairs of the AAAS must be discussed briefly. We are now operating on a budget exceeding \$9 million, with the bulk of our operating income derived from dues, subscriptions to *Science*, and paid advertising (see Table 1). About 86 percent of our revenue is self-generated, while the other 14 percent comes from grants and contracts. On the expense side, substantially more than half of our expenditures go to publishing and distributing *Science* and maintaining member records and subscription fulfillment. In the executive budget for 1977, the priorities were given to maintaining and improving the quality of *Science*, strengthening membership promotion,

Table 1. Summary budget for 1977.

Major category of revenue	1977 revenue budget	Office/Center	AAAS funds	Direct grant and contract funds	Total expense
<i>Revenue (in thousands)</i>		<i>Expense (in thousands)</i>			
Dues of annual members	\$2,875	Executive Office	\$ 405	\$ 10	\$ 415
Nonmember subscriptions	1,260	Contingency reserve	100		100
Advertising in <i>Science</i>	2,550	Office of Administration	1,032		1,032
Grant and contract funds	1,336	Office of Comptroller	278		278
Subscriptions to <i>Science Books</i> and <i>Films</i>	87	Membership and Public Information Office	305	10	315
Annual meeting registration and exposition	140	Development Office	59		59
Investment income	325	Editorial Center (<i>Science</i>)	4,824	5	4,829
Product sales	410	Meetings and Publications Center	566		566
Rent income	65	Programs Center	435	1,206	1,641
Contributions and other items	220	Contingency for Potential Income			
		Taxes	13		13
Total revenue	\$9,268	Total expense	8,017	1,231	9,248
		Unexpended operating balance	20		20
		Total	\$8,037	\$1,231	\$9,268

and initiating a systematic flow of published books and reports.

An important step in budget planning is the projection of revenue and expenditure trends for 1 or 2 years beyond the actual budget year (Table 2). Potential new tax liabilities, steep increases in paper, printing, and postage costs, and continued general inflation in the national economy plainly indicate that in 1978 and 1979 our expenditures will outrun our present revenue capabilities. If AAAS budgets are to be in balance in 1978 and 1979, actions must be taken now to increase member and nonmember dues and advertising rates. Because of built-in lags, we cannot wait until we are in trouble to make these actions effective. Advertising rates have been increased by 10 percent in 1976 and will be increased by another factor in 1977 (they had not been increased at all since 1970), while member dues will be increased by \$3.00 in 1977 and nonmember subscriptions by \$10.00. These increases will not make the AAAS rich. They are barely enough to stave off deficits which would force the cannibalization of *Science* and eliminate basic programs.

The remainder of this report will deal with selected highlights of Association activities in 1976.

Program Highlights

Science. It was a good year for the journal. Priority in budget allocations made it possible to publish an average of 80 pages of editorial content per week, up from 72 pages per week in 1975. Most of the editorial increase went into the Reports and Research News sections. Four special issues were brought out, including one on materials and three on the Viking landings on Mars. Two special issues were planned for 1977—one on the electronics revolution (in March) and another on recombinant DNA (in April). Advertising revenue reached an all-time high (16 percent above 1975). Gains in production efficiency have continued, and further gains are in prospect.

The Board of Directors decided at their June meeting to change the purposes of the AAAS Newcomb Cleveland Prize. Henceforth, it will be a \$5000 prize awarded for the best research report published in *Science* each year. The contest year will run from 1 September to 31 August. Papers nominated for the prize will be given a preliminary screening by expert referees, and the final judgment will be made by a group of judges from a panel nominated by the AAAS sections.

Innovations are being tested as part of

Table 2. Long-range budget situation for 1978 [(in thousands), AAAS funds only; receipts and expenditures of direct grant and contract funds are excluded].

1978 revenue estimate*	\$8,457
1977 budget annualized (full cost)†	\$8,094
1978 incremental costs for <i>Science</i> to maintain 1977 position	320
1978 built-in increases‡	190
Total estimated costs	8,604
Estimated net surplus (deficit)	\$ (147)

*Assumes no increases in member or subscriber rates. †Includes \$100,000 contingency reserve.

‡Annual step increases in pay and inflation.

the publishing of *Science*. Twelve color covers were used in 1976 and drew much favorable comment. The staff is investigating the feasibility of extending reprint sales at modest prices for classroom use. Study is also being given to making *Science* available in microfiche on a weekly basis, rather than only by year. In the near future each Article in *Science* will be preceded by a brief summary of its content for nonspecialized readers. And a feature called Science in Europe, written by a foreign correspondent, will appear in the journal.

International Science. AAAS took the lead in 1976 in forming a Consortium of Affiliates for International Programs*, and its present focus is on developing cooperation in professional education, appropriate technology, and the study of desertification. Attention is being given to the role of nongovernmental organizations in raising issues concerning the use of science and technology in diplomacy both by the Department of State and other U.S. agencies and by nations within the framework of the United Nations. Responding to the U.N. Conference on Human Settlements, AAAS focused the NSF-National Endowment for the Humanities summer workshop on American Values and Habitat. Plans for two international meetings before the U.N. Conference on Desertification (1977) have been undertaken as a logical expansion of the activities of the Committee on Arid Lands. Preparations for the U.N. Conference on Science and Technology for Development (1979) are being monitored by

*The original members are the American Chemical Society; Institute of Electrical and Electronics Engineers; American Society for Information Science; American Medical Association; American Institute of Biological Sciences; Volunteers in Technical Assistance; American Society of Agronomy; American Society for Engineering Education; American Anthropological Association; American Statistical Association; National Science Teachers Association; American Physical Association; Association of American Geographers; and American Psychological Association.

the AAAS for the Consortium. We are being an active nongovernmental organization in the Economic and Social Council as well as other elements of the United Nations. Gerald Holton represents the AAAS on the U.S. National Commission for UNESCO.

The Interciencia Association, a federation of western hemispheric science associations established with AAAS encouragement, is becoming a viable international institution. Former AAAS presidents Leonard Rieser and Roger Revelle have given generously of their time to the planning of this hemispheric innovation, while Philip Abelson has made major contributions to the planning of the trilingual journal *Interciencia*. AAAS and the Interciencia Association are exchanging scientists, participating reciprocally in symposia, and cooperating in publishing matters. By the end of 1978, there are expected to be 12 member organizations in the new federation.

The AAAS has joined the Pacific Science Association as an associate scientific society and is cooperating with the Indonesian Institute of Sciences in preparing for the Third Inter-Congress, to be held in Bali in July 1977. Initiatives are being taken by the AAAS to establish contacts with the West African Science Association and the East African Academy, and a workshop on arid lands was convened last June in Nairobi. AAAS in the past year has been represented at meetings of the Indian Science Congress, the Sri Lanka AAS, the French AAS, the Bangladesh AAS, and SCITEC of Canada. Plans for sending a delegation to the 50th Jubilee Congress meeting of the Australian and New Zealand AAS are under way. On the European front, contacts are being made with the Commission of European Communities, NATO, the European Science Foundation, TOOL (the Netherlands), and the International Social Science Council, as well as with individual scientists.

Public-Sector Programs. The Shapley report on "Research and Development in the Federal Budget, Fiscal Year 1977," broke new ground for the AAAS. A 2-year grant was approved by the Sloan Foundation to support three types of AAAS initiatives: (i) a planned output of science policy reports to provide a baseline for seminars, symposia, and public forums; (ii) a program to foster university-based research and teaching in science, technology, and public policy; and (iii) the formation and use of an inter-professional network of science and public policy centers of affiliated scientific and engineering societies to focus and deepen cooperative efforts to respond to

problems in the relationships of science and technology to society. These new initiatives will be implemented with the guidance and participation of the Committee on Science and Public Policy. A second report on "Research and Development in the Federal Budget," accompanied by a Spring Science Policy Colloquium in Washington, is planned in 1977.

These activities should be viewed as parts in the larger context of AAAS inputs to the consideration of public policy problems that involve science and technology. They include a substantial share of the symposia at the annual meeting, the editorial and News and Comment departments of *Science*, the regional seminars on the public understanding of science, invited congressional testimony by officers of the AAAS, occasional White Papers, continual advisory services to government bodies, published reports and conferences related to international matters and the needs of women and minorities, and the leadership provided by the AAAS to the Congressional Science and Technology Fellows Program. It adds up to a very substantial commitment on the part of the Association, and one which is likely to grow.

With a grant from the National Science Foundation and under the guidance of the AAAS Committee on Public Understanding of Science, seven regional seminars were held in 1976, focused on two major issues: nuclear power and health care technology. While the seminars tend to focus on issues of national importance, each is designed to concentrate on local perspectives and needs. The 1976 seminars were cosponsored by the California Department of Health ("Health, Values and Ethical Issues Raised by Regulation of Sterilization," Sacramento); the Georgetown University Health Policy Center ("Death and Dying: An Examination of Legislative and Policy Issues," Washington, D.C.); the California Energy Commission ("Decentralizing Energy Decision-Making," Sacramento); the National Resources Law Institute of Lewis and Clark College ("Ballot Measure 9: Regulates Nuclear Power Plant Construction Approval," Portland, Oregon); Knox College ("Nuclear Power: Realities and Myths," Galesburg, Illinois); the Michigan Sierra Club ("High Level Radioactive Waste Management," Lansing, Michigan); and the San Diego Chapter of the American Institute of Architects ("Living with Seismic Risk: Strategies for Urban Conservation," San Diego).

The Mass Media Intern Program seeks to develop better relations between the scientific and media communities and to improve the quality and quantity of sci-

ence reporting. By affording outstanding advanced students in the natural and social sciences the opportunity to become working members of the mass media, the program helps them gain an understanding of the editorial process and increase their communication skills, while enabling the media to interact with people skilled in the methods of the sciences who can apply these approaches to the collection and presentation of news. The program has completed its second year with 14 interns selected from more than 120 applicants. The interns serve as reporters, research assistants, and production assistants with newspapers and radio and television stations.

Explorations by the AAAS with the Science Information Office of KPBS-TV in San Diego led to arranging a workshop on regional energy planning. The AAAS also provided partial support for a 1-hour televised debate on the California nuclear initiative, which was produced by KPBS and aired over several public broadcasting stations in California. In Atlanta, as an outgrowth of a 1975 seminar cosponsored with the Fernbank Science Center, the AAAS members in that area have established a substantial continuing relationship with the Fernbank Science Center consisting of a steering group which has sponsored public lectures and is working on plans for a regional seminar and a Speakers Clearinghouse. The AAAS views these developments with strong approval and as early evidence that the regional seminars program can be helpful in stimulating local action to improve the public understanding of science and technology.

A special regional seminar on "On-Shore Impacts of Off-Shore Drilling" was held at the Boston Public Library during the AAAS Annual Meeting. AAAS also cosponsored with the New York Junior Academy of Science two public lectures for high school students. The first, on "Energy, Food, and Man," was given by David Pimentel, Cornell University. The second featured a debate between Marcello Siniscalco and Richard Novick on "Genetic Engineering and Its Social Implications."

Science Education. The Program of Short Courses for College Teachers, funded by NSF, was conducted for the fifth year during 1976. More than 2500 college teachers participated in the program, which ended in April, while some 3000 college faculty attended the fall sessions in the 13 centers covering the Western, Central, and Eastern circuits. A new feature was added in the form of four meetings for deans and other officers of small colleges in the Southeast and Texas, to stimulate interest on the part of

these colleges. The results were reported in *Science* (5 November 1976).

A major project in the preparation stage will be an appraisal of the state of science education at the precollege level in the United States, to culminate in an AAAS White Paper. The plan is to build the Section Q Committee into the study group as its nucleus, and to determine through the pilot effort whether a Science Education White Paper at 2-year intervals is a feasible undertaking for the AAAS, working with the affiliated societies which are represented in the Science Education section.

Opportunities in Science. In the past year, the AAAS has enhanced its reputation as the principal vehicle for bridging the separation between the scientific professions and minorities, women, and handicapped scientists.

The problems confronting Native Americans in seeking a future in science are being recognized, especially with regard to science and mathematics education. AAAS recommendations to improve such education programs are being well received by federal agencies. Indian professional associations increasingly look to the AAAS for aid and information, as do federal agencies. AAAS reports on *Barriers Obstructing the Entry of American Indians into the Natural Sciences* and the *Inventory of Programs in Science for Native American Students* have been well received.

The most dramatic development in this field in 1976 was the Boston Annual Meeting, which was fully accessible to all handicapped persons. Several hundred deaf, blind, and otherwise physically handicapped persons attended for the first time. The AAAS booklet *Barrier-Free Meetings: A Guide for Professional Associations* has been effective in stimulating other organizations.

Much effort has also gone into raising the level of recognition in both the special education and the science education communities of the need for better science and mathematics education for handicapped students. Liaison has been effected between the National Science Teachers Association and the Council for Exceptional Children. An inventory of science education experience in teaching handicapped children has been initiated.

In responding to the needs of minorities, AAAS in 1976 published *The Double Bind: The Price of Being a Minority Woman in Science* and *An Inventory of Programs in Science for Minority Students, 1960-1975*. Minority participation in the Boston Annual Meeting made it probably the largest gathering of minority scientists ever held in the United States, with more than 200 in attendance.

Meetings and Publications. The annual meeting in Boston early in 1976 proved to be one of the largest in recent years. More than 6000 people attended, 5200 of whom registered. There were ten public lectures and 180 symposia. The meeting was covered by 600 reporters. The cochairmen, Gerhard Bleicken (chairman of the board of the John Hancock Insurance Company) and Howard Johnson (chairman of the Corporation, Massachusetts Institute of Technology), and their volunteer colleagues earned the lasting thanks of the Association for their outstanding contributions to the success of the meeting.

A comprehensive publication plan for the AAAS was prepared in 1976 by Arthur Herschman and approved by the Board. It is intended to generate a systematic output of published books and reports, rather than the uninspired and occasional output of the past. The primary sources of published materials, other than special studies or reports, will be *Science* and the annual meeting.

Membership Recruitment and Public Information. In 1976 these functions were consolidated under Carol Rogers's direction. Membership recruitment practices were reexamined critically with advice from the firm of Applied Marketing, Inc., and completely reorganized and redirected. A more versatile and innovative recruiting strategy has been initiated, new membership benefits are being worked out, and market tests of cost-effective promotion methods are getting under way. However, the downward drift of membership will not be reversed by headquarters efforts alone: cooperation by AAAS members and Fellows will be needed.

Public Information activities were expanded greatly in 1976, resulting in significantly greater media coverage of the AAAS. The coverage of the annual meeting in Boston was extensive and international, and all branches of the media were represented. *Science* magazine again proved highly newsworthy, with 50 to 100 clippings received each month on articles in the journal, as well as reprints of editorials. Press briefings held in advance of special issues of *Science* continued to provide focused articles in the press. National Public Radio (NPR) is now receiving advance copies of material in *Science*, and about 40 percent of this material is used on the air. NPR continues to give extensive daily coverage to the Annual Meeting. The regional AAAS seminars received increased media coverage during 1976.

Special Programs. Six AAAS Congressional Science and Engineering Fellows finished their 1-year assignments in

Senate and House offices in 1976. Of the 16 Fellows sponsored by the AAAS and its affiliates, four have elected to remain in congressional positions, three have taken other Washington jobs, and seven of the remaining nine have returned to their former academic or industrial careers. Four AAAS Fellows began their new assignments in September, as did six Fellows sponsored by other societies. For the fourth year in succession, about 15 percent of the 535 members of Congress expressed an interest in having a Fellow working with them.

By the end of 1977, some 50 scientists and engineers (19 selected and sponsored by the AAAS) will have held 1-year Congressional Fellowships. This effort is the equivalent of a \$1.25 million public service contribution to the U.S. Congress by the scientific and engineering associations. Affiliate society participation also has increased. The organizations participating in the Fellows Program, in addition to the AAAS, are the American Physical Society, Institute of Electrical and Electronics Engineers, American Society of Mechanical Engineers, American Institute of Aeronautics and Astronautics, American Psychological Association, Federation of Societies for Experimental Biology, Optical Society of America, Acoustical Society of America, and American Geophysical Union. In addition, three Duke University Psychology Fellows will participate in 1977.

The Committee on Future Directions, chaired by former AAAS president Leonard Rieser, was created in 1975 by the Board. Its charge is to identify significant new roles and opportunities for the AAAS. In its interim report to the Board, the Committee recommended that for the future the AAAS should make far greater use of its "convening authority" to bring together groups and institutions to work on crosscutting problems or issues; extend its potential for collaboration with professions outside science and technology, as in the National Conference of Lawyers and Scientists; address controversial problems of science and society through panel studies and public reports; and consider approaches to improving the accuracy and quality of science and technology programming and advertising on commercial television. The Board received these suggestions with approval. The Committee will continue its work in 1977.

The AAAS-American Bar Association National Conference of Lawyers and Scientists, cochaired by W. Brown Morton (ABA) and Emilio Q. Daddario (AAAS), has completed a period of organization and initial activities. Its accomplishments over the past year included a multi-

professional conference at Duke University on the scientific and legal aspects of weather modification. It cosponsored with Section W (Atmospheric and Hydro-spheric Sciences) and the American Meteorological Society a related symposium at the Denver Annual Meeting. The Conference has developed a plan of activities to pursue its work of facilitating more effective communication and cooperation among lawyers and scientists.

These plans include publishing a series of papers in *Science* and the *American Bar Association Journal*, convening regional seminars on important legal-scientific topics, and studying the uses of scientific and technological information in public decision-making. The Conference is seeking outside funds for this program.

In May, a workshop/conference on interdisciplinary research on science and social needs was held by the AAAS, with 70 people in attendance from business, government, academia, nonprofit organizations, foundations, and disciplines. Conference proceedings will be available in early 1977.

Committee on Scientific Freedom and Responsibility. This new committee, chaired by former AAAS president Bentley Glass, has undertaken a rigorous program of work. Through various subgroups, it will address such problems as domestic and foreign restraints on scientific freedom, threats to set boundaries on scientific research, punitive treatment of "whistle-blowers" who act on behalf of perceived public interest, and interference with science education.

Conclusion

Surveying what has been attempted in 1976, it seems clear that the Association is on the move and open to change. Its basic goal is what it has always been: to promote communication among the sciences. It cannot hope to advance science through a kind of monastic single-mindedness, to the exclusion of consciousness of the societal and institutional conflicts and changes that affect the prospects and hopes of science and technology. If the AAAS is to count, and if it is to affect outcomes as a respected institution, it must take some risks and recognize a multipurpose mission. The elements of that mission, together with their benefits and risks, begin to emerge in the foregoing account of the state of the Association at the close of 1976. There is good reason to be confident that the AAAS, in the years to come, will make a difference in the vitality and the uses of science and technology in meeting human needs.