

Section VI

**SUMMARY REPORT OF
ADVISORY COUNCIL ACTIVITIES**

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Jerome B. Wiesner, Chairman

The primary activity of the Council is in working with the Technology Assessment Board (TAB) and the Director of OTA to promote and maintain a high standard of quality in OTA staff, programs, and products which Congress can use to improve decisionmaking about technological issues. In the past year, Council members increased their commitments of time and energy and accepted a number of special assignments from the Board. In doing so, the Council made progress in improving working relationships both within the Council and with members of the Board, particularly on the special assignments; productive performance of the Council is highly dependent upon close and efficacious communications between all parties involved.

With the conclusion of the special assignments and with the appointment of the new Director of OTA, the Council will now direct its energies towards establishing a better working relationship with the Director, towards stimulating improvements in OTA productivity, towards the identification of important issues to be studied, and toward oversight of programs for which the Council has particular responsibility. These plans for the future have been developed on the basis of the Council's progress in the past year.

The Council traditionally conducts much of its business of advising OTA at regularly scheduled meetings. In 1977, the Council increased the frequency of regular meetings to a monthly basis, because members felt that the previous schedule of bimonthly meetings did not provide sufficient opportunities to interact with each other and with other parts of OTA. At these meetings the Council reviewed the progress of ongoing OTA programs and assessments—such as the automobile assessment, and the materials assessments. These reviews provided occasions for the Council to monitor the progress of assessments and to make suggestions to OTA program managers on

ways to improve their design and conduct. Regular meetings also included sessions with the Board Chairman, Senator Edward M. Kennedy, and Board Members, Congressmen Olin E. Teague, George Brown, and Clarence Miller. During interactions such as these, Members of both the Board and the Council offered suggestions, criticisms, and plans for OTA's progress. Increased frequency of meetings and interactions with the Board Members are an indication and a result of renewed commitment on the part of Council members to increase the efficacy of Council operations and to improve communications with the leadership of OTA.

The special assignments to which the Council was committed included: (1) screening prospective nominees for Council membership; (2) designing an evaluation of OTA to be conducted by the Council; and (3) screening candidates for the OTA Directorship. Each of these tasks involved substantial commitments from Council members, who responded generously.

The first assignment arose from the need to fill two vacant Council positions. One position was vacated when Dr. Harold Brown, then President of the California Institute of Technology, resigned upon accepting the post of Secretary of Defense. The other position was vacated by Dr. J. Fred Bucy, President of Texas Instruments, whose term expired at the end of 1976. The Board asked the Council to assist in nominating and screening prospective candidates for these positions. Council members responded by developing a set of criteria for Council membership, which they presented to the Board. Much of the discussion of these criteria focused on the need to expand the Council's resources by appointing members with diverse backgrounds. The Council then prepared a list of nominees, based upon their qualifications in accordance with the new criteria, and submitted this to the Board for con-

sideration. From the group of highly qualified candidates, the Board appointed Dr. Charles Kimball, Chairman of the Board of the Midwest Research Institute, and reappointed Fred Bucy. Professor John McAlister had earlier been reappointed by the Board to a new term.

Even before completion of this first assignment, the Board requested that the Council undertake an extensive evaluation of the management and operations of OTA. Although the evaluation was later deferred, the Council did devote the greater part of 3 months to developing a plan of work for such an evaluation. Areas considered to be important for later analysis included: determination of those aspects of OTA's organization and practices that should be covered; consideration for those aspects of the evaluation that might duplicate or overlap with previous such efforts; determination of the greatest speed with which a thorough, high-quality study could be conducted; and determination of whom could be contracted to do the study and how such a selection would be made. After much discussion and hard work on a number of alternative work plans, the Council concluded that the resignation of OTA Director Emilio Daddario and a third assignment from the Board to aid in the search for a successor, precluded an extensive evaluation of OTA at that time. The Council then recommended, and the Board concurred, that the evaluation be postponed.

The third assignment, undertaken at the Board's request, was to screen and rate prospective nominees for the OTA Directorship. After Mr. Daddario, the first Director of OTA, resigned effective July 1, 1977, the Board decided to conduct a national search for suitable candidates. Board Chairman Kennedy sent out over 5,000 letters to scientific societies, technological enterprises, universities, and other appropriate groups, requesting nominees for an OTA Director. The response from all sources eventually tallied 219 names. Council members made special attempts to solicit names of qualified women and minority candidates. During the summer of 1977, the Council worked with the Civil Service Commission to compile and circulate dossiers on all prospective nominees. The Council then held

multiple meetings to consider relevant criteria for choosing a Director, and to rank each prospective candidate based on those criteria. In mid-September, the Council submitted a complete set of dossiers and a final list of recommended nominees to the Board. After their own extensive deliberations, the Board offered the Directorship to Dr. Russell Peterson, President of New Directions. As part of his extensive qualifications, Dr. Peterson served as Governor of Delaware, as Chairman of the Council on Environmental Quality, and worked for the du Pont Company for 26 years as a research scientist and as manager of a variety of research, manufacturing, and sales organizations, the last 5 years as the Director of the Development Department's Research and Development Division, which he organized as an effort to get the du Pont Company into new fields.

Council members worked diligently on these special assignments, particularly the last one, and many of them reallocated time from other important pursuits to devote to the jobs requested by the Board. These tasks resulted in more opportunities for members of the Council to work closely with one another, and with the Board. The Council emerged from these tasks with strengthened commitment and unity, which can now be applied to its ongoing activities and responsibilities, as well as to any future special assignments from the Board.

The Advisory Council has a responsibility for promoting technology assessments in OTA of intermediate and long-term issues. In order to carry out this responsibility, the Council has become involved in two current programs at OTA. The Council oversees the R&D Policies and Priorities Program, and reviews the New and Emerging Technologies Program. Both of these programs progressed considerably in the past year. With the completion of special assignments, the Council will be able to devote energy more consistently to these responsibilities.

The R&D Policies and Priorities Program is composed of three panels of experts: Health of the Scientific and Technical Enterprise, R&D Decisionmaking, and R&D Applications. With the assistance of R&D Program staff and consult-

ants, the panels are mapping out many of the major issues of public policy and R&D, and they are preparing reports for Congress on the health of the scientific enterprise, national laboratories, social and technical demonstrations, possible reorganizations of science and technology in the executive branch, and other topics of importance in science policy. The R&D Program Steering Committee and the Advisory Council are now reviewing the staff, panels, and activities of the program, particularly in light of (1) the reduced FY 1978 OTA budget, (2) its urgent need to complete products useful to Congress, and (3) desire to present the new Director of OTA with maximum information regarding the work of the panels.

The New and Emerging Technologies Program covers another important and difficult-to-grasp aspect of OTA's operations. The ultimate purpose of this program is to explore ways in which OTA can anticipate, identify, and examine the effects of new technologies on society. The program is premised on the notion that decisions about technologies and policies to reduce anticipated negative effects will be more effective if implemented in the early stages of research and development. Early detection and warning may help ameliorate potential problems and negative impacts which could prove intractable at later stages of development. However, anticipation, prediction, and detection of impacts are no doubt most difficult at early stages of development when the implications of a technology are unclear. The New and Emerging Technologies Program is attempting to look at these tough problems, and to identify key issues and methods which might be used to solve them. As in the R&D Program, the Council will undertake a review of the New and Emerging Technologies Program in early 1978, and attempt to apply the insights it has gained to the continuing work of OTA.

A third aspect of the Council's responsibility to promote broader, longer term issues at OTA, is the Methodology Subcommittee. The Subcommittee, chaired by John McAlister of Stanford University, was active in early 1977, attempting to define criteria for the proposed Council

evaluation of OTA management and operations. Because of the other urgent Council activities, this important task received relatively little attention from the Council members, and the Methodology Subcommittee was not able to develop a set of ongoing activities during this year. It is our expectation that the group will once again become active in the new year.

Individual Council members have contributed to selected aspects of OTA operations throughout the year. Frederick Robbins, on leave from his position as Dean of the Case Western Reserve University Medical School, chairs the OTA Health Advisory Panel; Hazel Henderson, of the Princeton Center for Alternative Futures, Inc., has participated in OTA's Appropriate Technology and Public Participation Task Forces; and Fred Bucy, President of Texas Instruments, contributed regularly to the Technology and World Trade activities at OTA.

In the past year the Council made some progress in working more effectively with the Board on OTA issues, though efforts must continue. Increased time commitments on the part of each Council member, special assignments from the Board, and the guidance of Board Chairman Kennedy, facilitated this development. Continued efforts in the new year should yield further improvements; one such effort currently underway is the plan to schedule joint monthly meetings of the Board and the Advisory Council.

The Council is now ready to work closely with the new Director in guiding OTA programs, and in promoting the consideration of broad, long-term issues at OTA. As one step in this direction, the Council hopes to aid the Director in establishing procedures for reviewing and making recommendations on requests for assessments and completed reports.

Despite some successes and ambitious future plans to aid OTA operations, the Council feels that it must improve its own activities if it is to justify its existence. Pressing commitments to full-time jobs often make it difficult for Council members to devote adequate time to Council matters and to attend Board meetings. For similar reasons, the Council's guidance of OTA pro-

grams and products is not often as careful and as close as it should be. Even so, the Council's activities in 1977 showed the members' abilities to commit time and energy to OTA when they were confronted with important problems. It may not be realistic to expect increased levels of participation from all members of the Council as it is presently constituted, but some additional effort appears possible.

One proposal to ameliorate limitations in time availability, and thus make the Council's operations more effective in the long run, is to expand the size of the Council. Such an expansion could build on the growing ability of the Council to work as a unit and on a desire on the part of Council members to aid the Board and the Director in serving the needs of Congress in analysis of complex technological issues.

The Council regards the opportunity to work with the OTA and Members of Congress as a rare privilege and a rewarding experience. With each passing day we appreciate more the extreme difficulty of making sound political judgments in areas where technical complexity and uncertainty

dominate the consequences of decisions. OTA represents a daring innovation to provide Congress with assistance in its day-to-day tasks. We would hardly claim that an adequate process has evolved. However, we are greatly impressed with the amount and quality of analytical work that has been performed on a vast range of problems of importance to the Congress and the Nation. Working in the eye of the political storms has been a new and most exhilarating experience for nearly all members of the Council.

Despite the many complexities of the situation, important help has been given to the Congress and a start has been made toward creating the Technological Early Warning System that the original legislation mandated. The next year should see OTA truly become of age. Under the leadership of the new Director, Dr. Russell Peterson, and housed in adequate facilities for the first time, OTA faces a productive year ahead with many exciting challenges. The Council plans to join with the OTA Board, its Director, and staff, and all the members of Congress in actively encouraging the new thrust forward that OTA is poised to make.