

## Section II

# Organization and Operations

The Office of Technology Assessment (OTA) was created by the Technology Assessment Act of 1972 (86 Stat. 797) to help the Congress anticipate, and plan for, the consequences of uses of technology. OTA received funding in November 1973, and commenced operations with the convening of the 93d Congress, 2d Session, in January 1974.

The statute specifies that OTA shall consist of a bipartisan Congressional policy Board, an OTA Director and Deputy Director, a citizens Advisory Council, and such other employees and consultants as may be necessary in the conduct of OTA's work. The Congressional Board sets the policies of the Office and is the sole and exclusive oversight body governing OTA. The OTA Director is the chief executive officer and is responsible solely to the Board, of which he is a member. The function of the Advisory Council is to advise on such technology assessment matters as may be requested by the Congressional Board.

OTA's Congressional Board comprises six Senators and six Representatives, evenly divided by party, who are appointed respectively by the President Pro Tempore of the Senate and the Speaker of the House. The current Board Chairman is Congressman Olin E. Teague of Texas and the Vice Chairman is Senator Clifford P. Case of New Jersey. The two posts rotate between the Senate and House in alternate Congresses, with the Chairman chosen from the majority party and the Vice Chairman chosen from the minority party. The Advisory Council consists of 12 members. Ten are public members, appointed by the Board, who are persons eminent in one or more fields of the physical, biological, or social sciences or engineering or experienced in the administration of technological activities, or who may be judged qualified on the basis of contributions made to educational or public activities. The Comptroller General and the Director of the Congressional Research Service of the Library of Congress are ex officio Council members.

In providing assistance to the Congress, OTA is to: Identify existing or probable impacts of technology or technological programs; where possible, ascertain cause-and-effect relationships; identify alternative technological methods of implementing specific programs; identify alternative programs for achieving requisite goals; make estimates and comparisons of the impacts of alternative methods and programs; present findings of completed analyses to the appropriate legislative authorities; identify areas where additional

research or data collection is required to provide support for assessments, and undertake such additional associated activities as may be directed.

***Initiation, processing, and flow of assessments.***-The Office of Technology Assessment, by statute, is located within and is responsible to the legislative branch of Government. Accordingly, its basic mission is to provide Congressional committees with assessments or studies which identify the range of probable consequences, social as well as physical, of policy alternatives affecting the uses of technology. Requests for OTA assessments may be initiated by:

- (1) The chairman of any standing, special, select, or joint committee of the Congress, acting for himself or at the request of the ranking minority member or a majority of the committee members;
- (2) the OTA Board; or
- (3) the OTA Director, in consultation with the Board.

The authorization of specific assessment projects and the allocation of funds for their performance is a policy responsibility of the OTA Board. The Board has established priority areas of study, and has approved individual assessment projects within those areas. In arriving at these decisions, the Board considers recommendations and plans developed by OTA staff, and applies the following general selection criteria, developed in consultation with the Advisory Council:

- Is this now or likely to become a major national issue?
- Can OTA make a unique contribution, or could the requested technology assessment be done effectively by the requesting committee?
- How significant are the costs and benefits to society of the various policy options involved, and how will they be distributed among various impacted groups?
- Is the technological impact irreversible?
- How imminent is the impact?
- Is there sufficient available knowledge to assess the technology and its consequences?
- Is the assessment of manageable scope-can it be bounded within reasonable limits?
- What will be the cost of the assessment?
- How much time will be required to do the assessment?
- What is the likelihood of Congressional action in response to the assessment ?

The development and performance of each OTA assessment is supervised by a program manager, assisted by other staff professionals with expertise in the subject under study, and by a citizens advisory committee or panel, comprised of persons directly involved with major aspects of the study. Assessments are carried out by panels of experts, consultants, con-

tractors, OTA staff members, or a combination of these resources, as deemed appropriate by the OTA project management team. The approach to a given assessment project can be determined in a variety of ways and may involve exploratory meetings or workshops of advisory panels, staff analyses, and consultant studies.

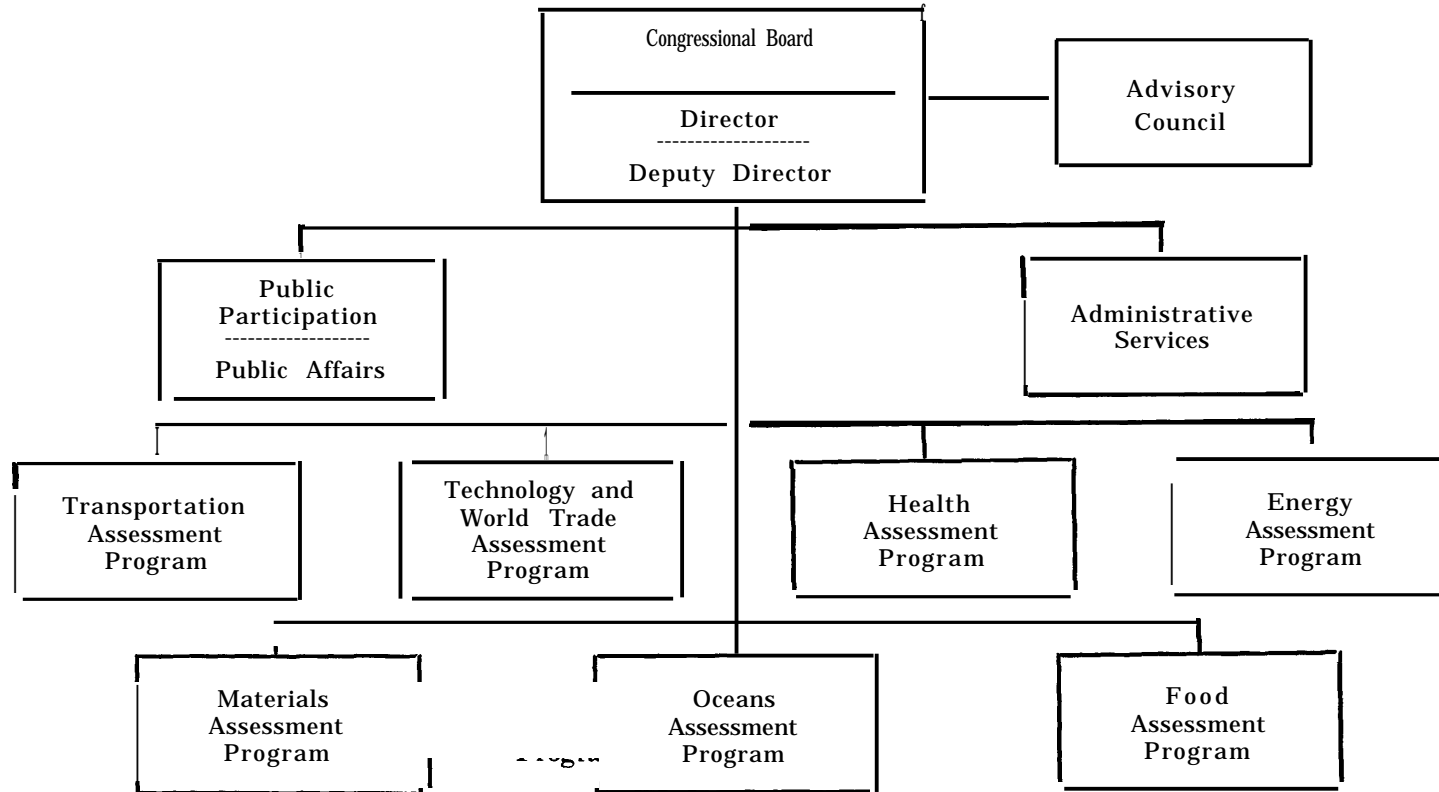
For assessments which include the resources of an outside contractor, the OTA staff, working closely with its citizens advisory group and representatives of the Congressional committees requesting the study, develops a detailed request for proposals which includes "a statement of work" outlining the scope of the study. Qualified parties demonstrating the capability to assemble the multidisciplinary team of experts needed to carry out a comprehensive technology assessment are invited to submit competitive bids. All proposals received by OTA are considered in the Office's contractor-selection process. In some instances, assessments carried out on an in-house basis, utilizing a task force approach or a series of workshop panel meetings, are augmented by contract studies of specific aspects of the overall project.

As the assessment or study proceeds, responsibility for its management remains solely a function of OTA. The resources of the associated advisory committee or panel are utilized throughout the entire project. Members and staffs of the interested Congressional committees also are kept informed on a regular basis of the progress and, as appropriate, the preliminary findings of the study. In many instances, such preliminary information assists committee staffs in their legislative analyses and preparations for public hearings.

Completed assessments and studies are transmitted by the OTA Congressional Board to the committee which requested the project, as well as to other interested committees. The committees of the Congress have first access to OTA assessment results and findings. At the direction of the Board, printing and public dissemination of final OTA reports takes place at the earliest possible date in accordance with arrangements worked out with the requesting committee (s).

***Appropriations and budgeting summaries.--Administrative and*** financial aspects of OTA operations are overseen by an Administrative Officer who reports to the Director. The Congress appropriated \$2 million for OTA operations during the final 8 months of fiscal year 1974. The OTA budget request for fiscal year 1975 was \$5 million and \$4 million was appropriated with the provision that the unobligated balance of fiscal year 1974 funds (\$696,000) would be available for use during fiscal year 1975. The OTA Board approved submission of an OTA budget request for fiscal year 1976 totaling \$6.5 million. The following table provides budget details by program and by major class of expense:

OFFICE OF TECHNOLOGY ASSESSMENT



	Fiscal	Fiscal	Fiscal	1975 to
BUDGET SUMMARY	1974 actual	1975 estimate	1976 request	1976 change
[In thousands]				
By program:				
Energy.....	\$322	\$447	\$858	+\$411
Food.....	16	377	1,008	+631
Health.....	162	413	566	+153
Materials.....		1, 117	779	-338
Oceans.....	12	823	998	+ 175
Transportation.....	472	358	794	+436
Technology and World Trade.....		43	205	+162
Exploratory Assessments.....	32	256	293	+37
TAAC.....	37	97	105	+ 8
Public Affairs and Public Participa- tion.....	8	126	159	+33
Office of the Director.....	136	224	225	+1
Administration:				
Information Services.....	150	415	510	+94
Totals.....	1,345	4,696	6,500	+1, 804
By major objects:				
Salaries and benefits.....	292	1,669	1,974	+305
Contracts and other services.....	965	2,599	3,884	+1, 285
Travel.....	30	273	435	+ 162
Other.....	58	155	207	+52
Totals.....	1,345	4,696	6,500	+1, 804

Note.—Details may not add to totals because of rounding.

**Staffing and organisational structure.**—The OTA professional staff has been recruited from the academic community, from industry, and from government scientific and technical agencies. With the exception of those officers with overall administrative responsibilities, professional staff members are assigned to specific program areas according to their experience and training. Staff professionals have been drawn from a wide variety of disciplines and backgrounds, including the physical sciences and engineering, social sciences, the law, and general administration. (A chart detailing OTA's organizational structure appears on the facing page.)

**Public participation.**—Public participation in the technology assessment process is an important OTA objective. In addition to the wide use of citizen advisory groups and consultants, the Office seeks to disseminate information to the various parties at interest in the subject being assessed so they may become more effectively involved in public decision-making processes. In keeping with this objective, meetings of OTA's Congressional Board and Advisory Council are open to the public. Also, the OTA Director is advised by an officer of public participation as well as a public affairs officer.

The Advisory Council plays a key role in providing a forum for public participation in technology assessment. This function of the Council was stressed in the report issued in January 1975, by Representative Charles A. Mosher, who served as the first Vice Chairman of OTA's Congressional Board. "I hope it will be possible for the Council to incorporate the participation of public interest and other groups into its activities. This will take a great deal of work on the Council's part, but it is a vitally important task," Mosher said. (Representative Mosher's text is included as an appendix to this report. )

A separate public participation project is being carried out by OTA staff in conjunction with the Office's coastal zone impacts assessment of technologies proposed off the shores of New Jersey and Delaware. A concentrated effort has been planned to identify and contact a broad cross section of public groups representative of the region's overall population. Assessment information will be shared with these community groups, and the interests and concerns expressed by participating citizens, in turn, will be considered in the larger study.

***Screening and evalation procedures.***—OTA screening procedures for evaluating assessment requests include smaller scale, exploratory assessments undertaken to provide a better basis for decisions by the OTA Board as to whether certain major study projects are warranted. These evaluations as to feasibility and usefulness are made by senior OTA personnel with the assistance of general consultants and an ad hoc advisory group. (Members of this panel are listed at the end of this section.) During the year under report, this effort resulted in an analysis of the feasibility of conducting a large-scale study of the potential impacts on rural America of both existing and newly developing telecommunications technologies.

The rural telecommunications assessment was requested by the Senate Committee on Agriculture and Forestry, which is seeking information about improved means for delivering "basic human services to people who live in low density circumstances in the American countryside." OTA's preliminary analysis, to be completed over a period of about six months, will provide for the OTA Board a review of the results and progress of similar studies being conducted elsewhere, as well as an outline of the technological options and policy alternatives which might be explored by a full-scale OTA assessment.

## Ad Hoc Analytical Process Panel

Dr. LAWRENCE J. FOGEL, <i>Chairman</i> .	President, Decision Science, Inc.
Dr. MARTIN GREENBERGER . . . . .	Professor, Department of Mathematical Sciences, <i>Johns Hopkins</i> University.
Dr. MICHAEL MESAROVIC . . . . .	Director, Systems Research Center, Case-Western Reserve University.
Dr. DENNIS MEADOWS . . . . .	Professor, Thayer School of Engineering, Dartmouth College.
Dr. RUTH DAVIS . . . . .	Director, Institute for Computer Science and Technology, National Bureau of Standards.
Dr. ROBERT E. MACHOL . . . . .	Professor, Graduate School of Management, Northwestern University.
Dr. ITHIEL DeSOLA POOL . . . . .	Professor, Department of Political Science, Massachusetts Institute of Technology.