

Section I.-Statements by the Chairman and Vice Chairman of the Board, TAAC Chairman, and the Director of OTA

Chairman's Statement- Senator Ted Stevens

The passage of the Balanced Budget Act of 1985 has intensified the pressure for Congress to carefully review all authorizations and appropriations to ensure that programs are necessary and represent a good investment of Federal dollars. It is particularly important that Congress have prompt access to unbiased and clear information about the longer term consequences of scientific and technological issues, lest these considerations get lost in the drive to cut budgets. The assessment reports, technical memoranda, and other information that OTA provided to committees included valuable information and analyses that Congress needs to meet its responsibilities in matters involving science and technology.

Committees of both the House of Representatives and the Senate take advantage of the resources offered by OTA. Last year, OTA reports covered topics ranging from toxic wastes and groundwater contamination to the changing structure of American agriculture to U.S. vulnerability to loss of imported strategic materials,

In addition to formal assessment reports, OTA provided Congress with less formal but timely information on smoking-related deaths and their financial costs, and a review of the Public Health Service's response to the problem posed by AIDS. The OTA paper on smoking reviews previous estimates of the extent of smoking-related diseases and provides new estimates of the number of deaths due to smoking. It also contains estimates of the financial costs associated with treating smoking-related diseases. The AIDS study reviewed the recent and proposed activities of the Public Health Service (PHS) in response to AIDS and provided a description of the scientific and clinical status of AIDS. It focuses on the planning efforts, resources, and staffing of PHS's efforts to understand and control AIDS. These are just two examples of OTA's emphasis on being responsive to urgent congressional concerns.

Vice Chairman% Statement- Congressman Morris K. Uddall

Over the past several years, there has been a steady increase both in the number of committees served by OTA and in requests for full assessments, short responses, and special analyses. When experts disagree on, for example, the technical or economic impacts of a new technology, the process of public policymaking becomes particularly confusing. OTA has provided a unique, in-house, nonpartisan service to Congress, helping congressional committees resolve uncertainties and conflicting claims.

OTA's record of accomplishments demonstrates its ability to aid Congress in developing broad policy options. I will cite only four of many.

(1) This past year OTA released a comprehensive study on prevention of costly, difficult cleanups under the Federal Superfund program. Although debate centered on how much money to spend on the Superfund program, the OTA study emphasized the importance of focusing more attention on how to spend the money and how fast.

(2) The OTA report on solving Africa's food problems concluded that the greatest potential for significantly expanding Africa's food production lies in increasing the productivity of small, subsistence-level farmers and herders, who raise most of Africa's food and yet have been largely ignored. Food producers need technologies that are low risk, require low purchased input, are based on existing agricultural methods, and are suitable for the small farms, small businesses, and small incomes in Africa. The challenge is to devise research, extension, and aid programs that involve local people and integrate on-farm work into the larger framework of national and international efforts.

(3) OTA also looked into the problems facing America's elderly. The report concluded that effective use of both "low-tech" and "high-tech" can help more older Americans live independently. A variety of technologies can improve the health and functional ability of older persons, and possibly reduce health care expenditures.

(4) OTA's analyses of ballistic missile defense and anti-satellite weapons were used extensively by both sides of the debate last year. These studies contributed to a much better understanding in Congress, the press, and the public of the stakes and issues in those areas.

In carrying out its constitutional responsibilities, Congress must be capable of independent, expert appraisal of government programs and policies. This task becomes more challenging as budget pressures rise and as technological issues mount. That's why OTA is such a special resource in these times,

TAAC Chairman's Statement- William Perry

The Technology Assessment Advisory Council remains impressed by the relevance of the subjects OTA is undertaking and by the quality of the analyses. This year TAAC examined OTA's work on industrial waste, employment, international commerce, defense, oceans and environment, and biological applications. We took special note of several studies with important implications for the future:

- OTA, building on their previous work on technologies for cleanup of past hazardous waste dumps, is now addressing the critical issue of reduction of new sources of hazardous waste. Over the long run, prevention should have the biggest impact on our hazardous waste problem.
- OTA's study of reemploying displaced adult workers raises interesting and important issues. TAAC was particularly concerned about: 1) the potential for remedial education using advanced technology; and 2) the implications of wasted urban infrastructure when jobs leave regions.
- The assessment on technology transfer to the People's Republic of China should provide much useful information at a time when the Chinese are anxious to profit from all sources of new ideas and are experimenting with profit-induced enterprise and a move toward a market economy. OTA has the delicate task of laying out the technical issues, while neither dwelling on nor obscuring the many political ones.
- OTA's project on ballistic missile defense has provided a comprehensive and objective analysis of the subject and has made an important contribution to the public policy debate. This issue concerns substantial frontier technologies and will likely need continuing analysis.
- OTA's work on acid rain and other environmental issues will continue to be important to broad national concerns since OTA has the capability to integrate a variety of issues that have been fragmented for political and jurisdictional reasons.
- OTA's work on frontier areas of biological applications (biotechnology, neuroscience, genetics) is a good example of the agency's increasing skill in integrating the social, ethical, and legal implications of various fast-moving technologies into its studies.

We believe that OTA's methods for ensuring the accuracy and objectivity of their studies continue to produce effective results.

Director's Statement—John H. Gibbons

One piece of advice I received recently from a distinguished colleague from outside government was that it would be better for OTA if we could steer clear of highly controversial issues—our life would be more simple and enjoyable, and we could do better analyses because of fewer pressures of politics, special interests, and time deadlines. It was a tempting thought! But one of the central reasons Congress created OTA was to help committees wrestle with highly complex and controversial technical issues. A frequent assignment is to tackle issues so charged that only first-rate, objective analysis by an organization that neither gains nor loses from the outcome will hold up under the kind of scrutiny and political comment that will be given to it.

In this annual report we summarize the analyses delivered to Congress during the year and give examples of their legislative use. We also provide brief descriptions of work in progress as the fiscal year ended. I hope the reader will spend a little time on these summaries, because they collectively provide a glimpse into the extraordinary technical complexity that now characterizes governance. Some of the subjects undertaken by OTA are more controversial than others, but all deal with expensive and important technical issues faced by Congress.

Congress created OTA because of widespread feeling that committees need continuing help in monitoring emerging developments in science and technology with respect to opportunities and impacts on the future of the country. For instance, there is a possibility of using sophisticated tests to determine whether a particular person is more, or less, susceptible to genetic mutations from exposure to a given substance or workplace hazard. Can such tests be made highly reliable? Does the genetic makeup of individuals differ that much? What are the implications for equity and opportunity in the workplace? During the year OTA undertook this and other analyses to try to sort out various views and provide Congress with a well-reasoned sense of the implications,

Because of OTA's responsibility to keep abreast of emerging science and technology issues, it is especially important that OTA's analysts see the world as it is, and also think about what it might become. provincialism is an ancient disease that can blind people as seriously as the actual loss of eyesight. That means OTA must be meaningfully linked to people and places outside Washington. It's not that links within Washington aren't also essential—they are. But wisdom about the frontiers of science and technology and their implications is *not* centered in the Nation's capital, and not always within the United States.

There are several ways OTA works to stay broadly connected to the national and increasingly international network of expertise on technology. First, we go into the field and meet with top experts and important stakeholders from the public and private sectors on any given issue. Second, we ask them to come to OTA and advise us—as advisory panel members, consultants, workshop participants, Third, we ask

them to read and critique our draft material, to assure accuracy, completeness, objectivity, fairness to the stakeholder positions we describe, and to spot and weed out political bias. This process has worked well for OTA because: 1) people we call on for help know that OTA will take them very seriously and will try to be responsive to what they say; and 2) they also believe that Congress will take the results of OTA's analyses seriously. During the year OTA received substantive input from over -1,500 different individuals from outside government—an important feature of the procedures we use to pursue quality, completeness, and usefulness of our reports to Congress.

Over the next several years the U.S. Congress will be debating intensively the questions of how to equitably provide desired public services at minimum cost. OTA staff, with its analytical skills and nonpartisan approach, and guided in the choice of its work by its bipartisan, bicameral Technology Assessment Board, can be an important resource to Congress in understanding the hard choices that assuredly lie ahead.