# Appendixes

# Appendix A
# Other Issues

The following issues are not within the primary focus of this report. Some are addressed in related OTA reports or studies. All warrant congressional attention,

## Electronic Communications Security and Privacy

The importance of technical, administrative, and legal measures to maintain computer security was discussed earlier. Equally important is the security of the communication lines and networks used to transmit information between and among computers, terminals, and the like. Privacy (as well as, potentially, national security) can be compromised if either computer or communications security is breached.

In a related, prior study entitled *Federal Government Information Technology: Electronic Surveillance and Civil Liberties* (October 1985), OTA found that many new electronic communication technologies are ambiguously covered or not covered at all by existing privacy law. For example, existing law offers little or no protection against interception of electronic mail, data communication between computers, and digital transmission of video and graphic images. OTA also found that about 25 percent of Federal agency components use or plan to use electronic surveillance technologies, many of which also are not clearly covered by existing law. One of several options available to Congress is to amend Title III of the Omnibus Crime Control and Safe Streets Act of 1968, the approach taken in H.R. 3378 and S. 1667, the Electronic Communications Privacy Act of 1985. See OTA's report for further discussion. Although there is no immediate technical answer to protection against electronic surveillance, technical options are being addressed in a separate OTA study, New *Communications Technology: Implications for Privacy and Security* (forthcoming in late 1986).

## Electronic Record Systems Privacy

The privacy of information stored in Federal Government record systems is protected in part by the same measures used to provide computer and communications security. However, these measures are directed against unauthorized access or misuse and abuse by authorized users. With respect to Federal record systems, new kinds of authorized uses (e.g., computer matching of records in two or more Privacy Act record systems, use of the social security number as a de facto national electronic identifier) far exceed those envisioned when Congress enacted the Privacy Act of 1974. While information technology offers many new opportunities to improve the efficiency of government recordkeeping and help prevent and detect fraud, waste, and abuse, the technology also presents new possibilities for inappropriate use or abuse of personal information. Relevant trends, issues, and policy options are discussed in OTA's forthcoming 1986 report entitled *Federal Government Information Technology: Electronic Record Systems and Individual Privacy.*

## Office Automation Impacts and Issues

This study considered office automation technologies-such as word processing, electronic mail, and optical disks-to the extent such technologies are subsumed within information technology management or IRM. However, office automation also is likely to have very specific impacts in areas such as the number, type, and content of office jobs; organizational structure; quality of worklife; and employee health and safety. These have been comprehensively studied in a December 1985 OTA report entitled *Automation of America Offices.*

## Institutional Change in Federal Information Technology Management and Policymaking

Over the last several years, a growing number of Members of Congress, industry leaders, and researchers have concluded that institutional change is needed in addition to legislative action and policy guidance on specific issues. Institutional change can itself focus on specific areas, such as strengthening the roles of the National Bureau of Standards and the National Security Agency in information systems security (see ch. 4), or establishing a new Data Protection Board or Privacy Protection Commission' to oversee Privacy Act implementation (see extensive discussion in OTA,

'See H.R. 1721, the Data Protection Act of 1985.

*Electronic Record Systems and Individual Privacy*, forthcoming 1986).

Institutional change can also focus on a broader range of issues. Options not considered in this study but deserving attention include:

- upgrading the Information Policy Branch of the Office of Management and Budget's Office of Information and Regulatory Affairs;
- reestablishing an Office of Telecommunications Policy (or the equivalent, e.g., an Office of Federal Information Policy) in the Executive Office of the President as a separate office or perhaps as part of the Office of Science and Technology Policy;[2]
- establishing an Institute for Information Technology Research and Innovation (or the equivalent) in the executive branch (see related discussion in ch. 3);[3]
- combining roles and resources from several agencies Lg., the Office of Management and Budget, the General Services Administration, the National Bureau of Standards) into a new Federal information management agency; and
- creating a new study commission on national information technology and policy issues.[4]

## International Information Management and Policy

While this study focuses on national-and even more narrowly, Federal-information technology, management, and policy trends and issues, information technology knows no boundaries. The international flow of information over computerized data, voice, and video networks is essential to the national economy, international trade and diplomacy, and national security. Canada, Japan, and many European nations have well-developed national information policies, and many other nations are establishing such policies. Therefore, U.S. policymakers need to consider the international implications of domestic management and policy initiatives on information technology.[5]

[2]See, for example, H.R. 642, the Telecommunications Policy Coordination Act of 1985.

[3]See, for example, H.R. 744, the Information Science and Technology Act of 1985.

[4]See S. 786, the Information Age Commission Act of 1985. Also see the proposal of the Association of Data Processing Service Organizations for a "Temporary National Information Committee, " and the "Panel on National Information Issues" formed by the American Federation of Information Processing Societies.

[5]A separate OTA study on *International Competition in the Services Industries* (forthcoming 1986) is examining technical, trade, and policy issues involving data processing and information services, computer software, and telecommunications.