OTA Federal Agency Data Request

After reviewing all available sources of information on Federal use of information technology, OTA determined that important information was not available in certain areas critical to the OTA assessment. To meet the need for additional information, OTA drafted a request for current agency data covering the areas in which information was lacking or incomplete. The draft request was reviewed by congressional staff of interested committees, and then pretested in four agencies—the Energy Information Administration (Department of Energy), the Food and Nutrition Service (Department of Agriculture), the Office of the Assistant Secretary for Postsecondary Education (Department of Education), and the Veterans Administration. Based on the results of the pretest, the data request was revised. (See attachment 1 for portions of the final, revised data request relevant to this report).

In April 1985, the data request was sent to the 13 cabinet-level agencies and 20 selected subcabinet agencies (see attachment 2) with a turnaround time of 5 weeks. Sufficient copies were provided for each of the subcomponents of the cabinet agencies. Agencies were informed that no new data collection was to be conducted. An OTA staff member was identified who could be contacted to provided clarification where necessary.

All agencies that were sent the request provided a response, although the responses varied in completeness and quality. A total of 142 agency components provided information. While many of the agencies provided responses well within the time allotted, the completion time for the entire request (142 agency components) was approximately 2 months. The data provided were compiled by OTA staff and appear as appropriate throughout the report.

A draft copy of the OTA report was provided to each of the participating agencies for review and comment.

Attachment 1

<u>OTA FEDERAL AGENCY DATA REQUEST</u>

INFORMATION TECHNOLOGY MANAGEMENT

A. Please provide the following technology data, <u>to the extent</u> **available,** f o r fiscal years 1975 (actual), 1980 **through 1984** (actual **by year), and 1985** (planned).

	1975	**1980**	**1981**	**1982**	**1983**	**1984**	**1985**

<u>Technology</u> (number of units in use by year)

1. **mainframe computers--**
   a)systems

   b)central processing units

2. **terminals** for mainframe computers

3. microcomputers (use (GSA definition*)

4. telephones

B. Please **provide a copy of your agency's** most recent 5-year plan and any other current planning document for Information technology (e.g., automated data processing, microcomputers, and telecommunications).

C. **For** your agency's mainframe computers (i.e., major system acquisitions), please provide data, <u>to the extent</u> available, on the <u>average age</u> (in years/months) of operating mainframes and <u>average procurement time</u> (in years/months) of mainframes purchased in 1975, 1980, and 1984 (by year).

	<u>1975</u>	<u>1980</u>	<u>1984</u>
Average age			
Average procurement time			

D.- **Please list** the major factors that are affecting (e.g., increasing or decreasing) the average procurement time for mainframe computers.

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*The GSA definition of microcomputer is: Any microprocessor-based work station capable of independent use--including stand-alone and networked "personal computers," "professional computers," "intelligent terminals," word processors, **and other** similar devices --costing less than $10,000 per unit, but excluding peripherals and separately purchased software.

E.   of   the   following technologies your   agency
has used, is using, or is planning to use:

	Past Use		Current Use		Planned Use	
	Yes	No	Yes	No	Yes	No
Audio-conferencing	___	___	___	___	___	___
Teleconference ng (1-way video, 2-way audio)	___	___	___	___	___	___
Videoconferencing (**2-way** video)	___	___	___	___	___	___
Computer-conferencing	___	___	___	___	___	___
Teletext	___	___	___	___	___	___
Videotext	___	___	___	___	___	___
Cable television	___	___	___	___	___	___
Interactive cable TV	___	___	___	___	___	___
Expert systems/artificial intelligence	___	___	___	___	___	___
Electronic mail	___	___	___	___	___	___
Voice mail	___	___	___	___	___	___
Optical disks	___	___	___	___	___	___

F.   For any technologies checked "yes" in question E above, please describe,
to the extent feasible, the specific technology, application(s), users (or
participants), location(s), date(s), costs, and results (or evaluation).
Please provide a copy of any written reports on these uses.

G.   Has your agency conducted one or more information security risk analyses
of computer/telecommunications systems since 1980? Yes ___ No ___ If yes,
please provide data, if available, on the number of risk analyses conducted
per year for the fiscal years 1980 and 1984. Please provide data, if
available, on the average and high/low cost per risk analysis by year. Please
provide a copy of your agency's three most recent computer (and
telecommunications) security risk analyses.

H. Please indicate which, If any, of the following or other security techniques are used by your agency for protection of <u>sensitive unclassified</u> Information.*

	Yes	**No**	If Yes, for what % of systems that process sensitive unclassified information?
Applications screening (i.e., management certification)	___	___	_____ %
Personnel screening	___	___	
Audit software (i.e., audit trails)	___	___	_____
Restrictions on dial-up access	___	___	_____
Password controls on access	___	___	_____
Encryption	___	___	_____
Back-up hardware	___	___	_____
Back-up of key data files	___	___	_____
Physical security for hardware	___	___	_____
Other _____	___	___	_____

I. Does your agency have an explicit information security policy for microcomputer users? Yes ___ No _•_ If yes, please attach a copy of your agency's security policy for microcomputers.

J. Please indicate which, if any, of the following have provided your agency with assistance in developing security plans and policies during fiscal years 1983, 1984, or 1985, and the date and nature of this assistance.

	Yes	No	If Yes, provide date and describe nature of assistance
OMB	___	___	_____
GSA	___	___	_____
NBs	___	___	_____
NSA		___	_____
DOD Computer Security Center	___	___	_____
Other Federal (specify)		___	_____
Private contractor (specify)		___	_____
Other non-Federal (specify)	___	___	_____

_____

*Sensitive unclassified information: information collected, maintained, and/or disseminated by an agency that is not classified but whose unauthorized release or use could compromise or damage privacy or proprietary rights, critical agency decisionmaking, and/or the enforcement or implementation of public law or regulation under which the agency operates.

K. Does your agency have a contingency plan for handling disruption of your major mainframe computer systems by external factors, (e.g., electric power failure, data network Interruption, natural disaster, sabotage)? Yes ___ No ___. If yes, please provide a copy.

L. Please provide data, to the extent available, on your agency's funding and staffing (in full-time equivalents) for computer and communications security for fiscal years 1975 and 1980 through 1985.

	1975	1980	1981	1982	1983	1984	1985
Funding (current dollars)	_	_		_	_	.	_ .
Staff (full-time equivalents)	_	_		_	.	_	. _

M. Does your agency have an established procedure for tracking and analyzing computer-related crime in your agency? Yes   No . If yes, please describe in detail. In either case, please provide your agency's best estimate, to the extent feasible, of the number and type of compute-related crimes for 1984; indicate whether the perpetrator was an agency employee, a Federal employee from another agency, a Federal contractor employee, or a person not associated with the Federal Government; indicate whether criminal, civil, and/or administrative proceedings were initiated; and provide the results thereof.

N. Does your agency have an established policy on employee access to agency computers (e.g., what employees are authorized to access which computers)? Yes ___ No ___. If yes, please describe in detail, Including a description of the criteria on which determinations of employee authorizations are based. Does the policy extend to employee access to microcomputers? Yes ___ No ___. If yes, please provide details.

PUBLIC INFORMATION

A. Please provide budget, staffing, and activity data, to the extent . available, for fiscal years 1980 and 1984 (actual by year), 1985 (projected), and 1986 (anticipated) for your agency's public information activities, defined to include:

1. Printing and publishing (e.g., number of titles, total copies, total pages, fee or free). Break out in-house, contractors, etc.
2. Public affairs (e.g., number of conferences, seminars, and/or workshops on information dissemination and public access and awareness of agency information)
3. Libraries and information centers (e.g., number of libraries, number of information centers or clearinghouses). Break out in-house, contractors, etc.
4. Statistical activities (e.g., number of surveys, average sample size). Break out in-house, contractors, etc.

B. Has your agency compiled any **data or conducted** or sponsored any studies on the Impact of any changes in your public information acclivities on user groups, agency clients, and/or the general public? Yes   No   If yes, please provide copies of such materials. If no, please describe plans to compile such data or conduct or sponsor such studies.

C. Does your agency have a directory or catalog of your public information activities and produces? Yes ___ No ___. If yes, please provide copies. If no, please describe any plans to compile such a directory or catalog.

D. Does your agency make available or disseminate any public information In electronic format (e.g., computer tape or disk, direct electronic)? Yes   No   . If yes, please provide further details below. If no, please describe any plans co disseminate electronically.

E. For each specific public information product (e.g., report, data base, statistical series) available in electronic format, please provide the following information, to the extent available:

1. Name of public information product and startup date
2. Statutory or regulatory authority or requirement, if applicable
3. Brief description of product (e.g., size and contents of data base)
4. Type of electronic format (e.g., computer tape or disk, direct electronic, dial-up access)
5. Information available: directly from Government agency, from Government contractor, from commercial vendor, or combination (please specify)
6. Number of users per year for fiscal year 1984

7. Type of users if known (e. g., general public, university researchers, libraries, **State/local** governments, business corporations, public Interest groups, trade associations) with percentage of 1984 total use by type of user

8. Fee schedule (e.g., free, subscription, one-time use fee) and typical charges

9. Currently available in paper form? Yes ___ No ___ If yes, what is the cost? If no, was the product previously available in paper form, and if so, what did it cost and when was it terminated?

10. If your agency is providing public information In electronic format Instead of paper format, please list and discuss the reasons why (e.g., comparative cost, user preference, competing products)

F. Has your agency conducted or sponsored any studies on the impact of provision of public Information in electronic form? Yes ___ No ___ If yes, please provide copies of such studies. If no, please describe any plans to conduct or sponsor such studies.

G. Does your agency have any specific policies or procedures on provision of public Information (e.g., with respect to fee schedules, cost recovery, contracting out, mode of access, private sector provision)? Yes ___ No ___. If yes, please provide a copy.

H. Does your agency conduct activities designed to increase public awareness of, access to, or use of your public information? Yes ___ No ___ If yes, please list and describe these activities. If no, please describe any plans to conduct such activities.

I. Does your agency make any use of remote printing or printing-on-demand technology (e.g., printing out copies of reports only as requested and/or at remote, decentralized locations)? Yes ___ No ___. If yes, please provide detailed information on the specific use extent use, location(s), and *cost.* If no, please describe any plans to use such technology.

COMPUTER-BASED DECISION SUPPORT

A. Does your agency use computer-based modeling (including simulation) to support agency activities and programs (including decisionmaking on Federal Government policies and programs within your agency's jurisdiction)? Yes ___ No ___.   If yes, please provide the detailed information below.

B. Does your agency have a directory of modeling applications within your agency? Yes ___ No ___.   If yes, what is the format of the directory (e.g., paper, microfiche, on-line electronic, computer tape)?   If the directory is in paper or microfiche format, please provide a copy (paper preferred).

C. Does your agency have **a** clearinghouse or other central reference point (e.g., a **person or organizational** unit that maintains current information) about modeling applications? Yes ___ No ___.   If yes, please identify the clearinghouse (or person's) name, location, and telephone number.

D. Does your agency have procedures or policies on the availability of modeling details (e.g., structure, **assumptions, input data) to the public?** **Yes** ___ **No** ___. **To Congress? Yes** ___ **No** ___. **If yes, please provide** a copy of **such procedures** or **policies.**

E. Has your agency conducted or sponsored any studies on the impact or use of modeling to support agency decisionmaking? Yes ___ No ___.   If yes, please provide copies of such studies.

F. Please estimate the total number of modeling applications used in 1984, and list the 10 areas of application (e.g., estimate air pollution levels, project future level of Medicare/Medicaid beneficiaries, simulate climatic change) with the heaviest use.

    1984 total applications _____
    10 heaviest areas of application:

       1. _____

       2. _____

       3. _____

       4. _____

       5. _____

       6. _____

       7. _____

       8. _____

       9. _____

     10* _____

G.   Please indicate which, if any, of the following computer-assisted decision analytic techniques your agency Is using or is planning to use:

	Current Use		Planned Use	
	Yes	No	Yes	No
Spreadsheet software (e.g., Lotus 1-2-3, VisiCalc)	___	___	___	___
Forecasting techniques (e.g., Delphi)	___	___	___	___
Quantitative decision analytic techniques (e.g., linear programming, queuing analysis, systems analysis, critical path analysis)	___	___	___	___
Quantitative decision analytic techniques with judgmental input (e.g., decision trees, subjective probability, multi-attribute utility)	___	___	___	___
Decision conference techniques (e.g., interactive use of computer assisted analytical techniques by decisionmakers in group situation)	___	___	___	___
Electronic voting techniques (e.g., consensor)	___	___	___	___
Computer-conferencing for decision analysis	___	___	___	___
Other _____	___	___	___	___

H.   For any techniques checked "yes" in question G above, please describe, to the extent feasible, the specific technique, application(s), user(s), costs, and results (or evaluation). P l e a s e provide a copy of any written reports on these uses.

I.   Does your agency have the following:

	Yes	No
Directory of decision analytic techniques	___	___
Clearinghouse of decision analytic techniques	___	___
Decision analytic support center	___	___

If yes to any of the **above, please provide** copies of relevant descriptive documents and the names, locations, **and telephone numbers of knowledgeable** persons. If no to all of the above, please describe any plans to initiate **such activities.**

J. Has your agency conducted or sponsored any studies on the impact of using decision analytic techniques to support agency decisionmaking?
Yes ___ **No** ___. If yes, **please provide** copies of such studies.

Attachment 2

Federal Departments and Agencies

Cabinet Department	Number of Agency Components Responding
Agriculture	25
Commerce	17
Defense	14
Education	2 (agency-wide)
Energy	
	rest of agency)
Health and Human Services	9
Housing and Urban Development	1 (agency-wide)
Interior	9
Justice	13
Labor	8
State	1 (agency-wide)
Transportation	11
Treasury	9
Subtotal	122

Independent Agencies

Commission on Civil Rights	1
Consumer Product Safety Commission	1
Environmental Protection Agency	1
Equal Employment Opportunity Commission	1
Federal Communications Commission	1
Federal Elections Commission	1
Federal Emergency Management Agency	1
Federal Reserve System	1
Federal Trade Commission	1
General Services Administration	1
National Aeronautics and Space Administration	1
National Archives and Records Administration	1
Nuclear Regulatory Commission	1
Securities and Exchange Commission	1
Selective Service System	1
Small Business Administration	1
Arms Control and Disarmament Agency	1
U.S. Information Agency	1
Agency for International Development	1
Veterans Administration	1
Subtotal	20
TOTAL	142