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February 24, 1988

To: Members of the Committee on  
Executive Board Administrative Matters

From: The Committee Secretary

Subject: Electronic Data Processing (EDP) - FY 1989  
Budget for Offices of Executive Directors

The attached paper is being circulated to the members of the Committee at the request of the Chairman. It will be taken up at a meeting of the Committee to be held on Tuesday, March 8, 1988 at 3:00 p.m. in the Committee Room, 12-120.

Att: (1)

Other Distribution:  
Members of the Executive Board



Financial Year 1989 Budget Request for EDP Equipment  
in Offices of Executive Directors

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Prepared by the Staff  
February 22, 1988

1. Purpose

This report is submitted in accordance with EBAP/87/136 (June 15, 1987) which provides that, beginning with the budget for FY 1989, each Executive Director's office would formulate an EDP budget request with the technical assistance of the staff. These requests would be consolidated into a single budget, to be submitted to the Committee on Executive Board Administrative Matters for review and recommendation to the Executive Board.

2. Status of EDP in FY 1988

To place the proposal for FY 1989 in context, there follows a brief review of the current status of EDP in offices of Executive Directors in FY 1988.

Thus far in FY 1988, 54 personal computers, including 3 portable systems for use as "loaners," have been requested and procured. Together with the 4 existing "pilot" systems, this comprises an inventory of 58 machines.

Out of the funds approved for hardware and software acquisition under Projects 004 and 99N, an estimated \$34,378 remains. It is projected that this sum will be needed to meet the requirement by one office for selection and installation of a local area network, the last significant hardware/software acquisition in FY 1988.

As of the report date, 46 machines had been installed in 18 offices, with 6 machines on order for offices of Executive Directors. By the end of FY 1988, it is expected that 52 machines will have been installed in 22 offices of Executive Directors, an average of 2.4 personal computers per office. (One of the existing pilot systems and one new IBM PC/AT were installed in the OED Training Facility for testing, configuration and training purposes. A model PS/2 workstation has been ordered from Project 99N funds for the same purposes.) The Committee may be interested to note that in the World Bank, Executive Directors are entitled to 2 personal computers per office. The second units of this entitlement are in the process of being installed.

In addition to hardware and software installations, training was provided for staff of OED. Between October 1987 and January 1988 twelve training classes were offered in the use of DOS, WordPerfect, AREMOS, JOLIS, and the Document Management Facility in cooperation with the Training Unit, the Joint Library, and the Records Division. Training

has also been provided on an individual basis by the staff of the OED Training Facility in these and other subjects, such as LOTUS 1-2-3, the Calendar package, Key Contacts, etc.

The equipment procured in FY 1988 under the new office automation guidelines is itemized in Appendix I.

### 3. EDP Budget Request for FY 1989

#### General Information

In December 1987 and January 1988 the staff met with representatives of all Executive Directors' offices to ascertain individual EDP requirements for hardware, software, and other services for the next financial year. The great majority of requests were for additional IBM personal computing workstations, printers, and accessories. Requests were also received for non-standard word processing systems to meet language, facsimile, and document distribution requirements. In addition, a few offices expressed interest in various means of access to external computing systems and financial information services.

#### Consolidated EDP Budget Request for FY 1989

The consolidated OED budget request for FY 1989 totals \$987,857, up 6.4 percent from FY 1988. As shown in Appendix II, the FY 1989 request has been apportioned into two projects, 002 and 004. Project 002 provides funding for renewal of lease and maintenance agreements on equipment installed prior to FY 1989. Project 004 contains funding for acquisition and maintenance of new systems, as well as manpower to support the current and projected installed base.

Activities formerly funded under Project 001, General Support and Overhead, and Project 99N, Microcomputer Project, have been consolidated into Project 004. This change has been made to centralize administration of support services and simplify control and monitoring of expenditures. Appendix III compares the FY 1988 funding structure and levels for OED to those requested for FY 1989.

#### Project 002, Renewal of Lease and Maintenance

Project 002 provides funding for rental and/or maintenance of equipment and software installed prior to FY 1989, and is based on records of lease/maintenance agreements currently in effect, microcomputer purchases, and annual software licenses for AREMOS. The total request for Project 002 is \$100,672 as itemized in Appendix II, and represents an increase of 43.3 percent above last year's budget.

This project includes:

- o rental and/or maintenance agreements for the existing base of dedicated word processing machines, i.e., NBI, Displaywriter, CPT, Lexitron;
- o annual BCS maintenance for IBM personal computers installed prior to FY 1989;
- o annual license renewal fees for each copy of the AREMOS econometric software package installed on a personal computer.

Project 004, Office Systems in OED

Project 004 would provide funding for all other EDP equipment and activities in Offices of Executive Directors. As shown in Appendix II, the total request for Project 004 is \$887,188, up 3.4 percent over last year's allocations for project 001, 004, and 99N, and is comprised of the following elements:

Acquisition of Equipment

In all, individual offices requested 50 additional personal computers, 9 facsimile machines, a local area network, non-standard word processing systems, and access to external sources of financial information. As shown in Appendix IV, requested hardware and software for FY 1989 is projected to cost \$616,821, the same as in FY 1988.

Of this equipment, 6 personal computers were requested on a contingency basis, owing mainly to the relatively long lead time for the budget process and a consequent uncertainty about correctly assessing future requirements. The contingent request for a local area network was presented as a fallback solution in the event that an electronic mail system is not made available to OED in FY 1989. These contingent requests and their projected costs are identified in Appendix II.

Of the remaining "firm" requests for 44 personal computers, one office indicated that its specification of a personal computer for FY 1989 would depend on the ability of a similar machine just installed in the office to meet multi-lingual word processing requirements. If these requirements were not met, the office would then employ these funds to obtain an alternative word processing system.

The above total for hardware and software also includes:

- o a \$5,000 contingency for hardware and software upgrades to dedicated word processing equipment, formerly funded under Project 001.
- o a \$5,000 contingency for miscellaneous minor requests, unforeseen requirements, and potential cost increases and/or underestimates for non-standard equipment.

- o \$25,000 for non-standard word processing software and hardware, specifically word processors for Japanese and Arabic. Since the identification of non-standard systems could not be accomplished in the short time available, the requested sum represents the staff's estimate of the upper end of a range of potential costs for such systems. This request also includes funding for compatible printers, accessories, software, supplies, and vendor maintenance agreements.
- o \$24,000 (approximately \$1,965 per month) for leasing a Reuters workstation and associated database subscription for use by all Executive Directors' offices. This workstation would provide real-time access to databases of Internal Money Rates, Global Capital Markets, and Country Reports. It is suggested that this workstation might be installed in Room 11-309, the current OED training facility, on a pilot basis for a period of one year.

If the consolidated budget were to be approved as presented herein, by the end of FY 1989 116 personal computing systems will have been installed in offices of Executive Directors. This figure includes 11 older personal computers and portables procured under the former office automation guidelines or as "loaned" systems, and 3 machines provided to joint offices by the World Bank. Appendix V presents a summary of the anticipated end-FY 1989 personal computing configurations for each office.

#### Computer Time for Access to Fund Economic Databases

This category represents an estimate of the cost of access to the Economic Information System and/or RAL via AREMOS and the UNISYS A15 computer. The costs are based on rates for processing services, communications, and centralized printing furnished by the BCS Computer Facilities and Operations Division. It is estimated that \$1,725 will be required for this purpose.

#### Manpower

Based on the consolidated requests, manpower requirements for FY 89 are anticipated to be approximately 176 manweeks, or \$268,639. This would represent an increase of 11.3 percent over the \$241,360 allocated in FY 1988 for Project 001 and 004. This increase is equivalent to an additional 18 manweeks over those approved for FY 1988.

In FY 1989, installation of 50 machines would require approximately the same level of effort as in FY 1988 for administration, requisitioning, installation, coordination of facilities and data communications efforts, training new users, and maintenance of the OED training facility.

The following services would then be provided in addition to those provided in FY 1988:

- o acquisition, installation, and support of nine office facsimile machines, non-standard word processing systems, a Reuters pilot system, and potentially, a local area network. Twelve manweeks are estimated for this purpose.
  
- o provision of applications and operational support to users of the 48 existing word processing systems, formerly funded under Project 001, and an enlarged base of 122 personal computing systems and users, including the systems in the Training Facility and the loaner pool. This would require 6 manweeks.

APPENDIX I - FY 1988 HW/SW EXPENDITURES

PROJECT 004

UNDER THE NEW OFFICE AUTOMATION GUIDELINES

NO.	CATEGORY	ITEM	UNIT PRICE	TOTAL REQUESTED		OFFICE ENTITLEMENT		"POOL"	
				NO		NO		NO	
1	WORK-STATION	IBM PC/AT (8MHZ) w 80286 microprocessor; 30Mb Fixed Disk; 512Kb RAM; one 5.25" 1.2Mb Floppy Drive; Adaptors for disk drives; Serial/parallel interface adapter; Enhanced keyboard.	\$2,806.28 *	47	\$131,895.00	19	\$53,319.26	28	\$78,575.74
2		One 5.25"/360Kb Internal Diskette Drive	\$151.85 *	47	\$7,137.00	19	\$2,885.17	28	\$4,251.83
3		One 128/640Kb Memory Expansion Option	\$210.00	43	\$9,030.00	15	\$3,150.00	28	\$5,880.00
4		IBM 80287 Math Co-Processor	\$234.02 *	47	\$10,999.00	19	\$4,446.40	28	\$6,552.60
5		Serial Adapter Cable	\$39.00	82	\$3,198.00	28	\$1,092.00	54	\$2,106.00
6		Serial/Parallel Adapter	\$90.00	53	\$4,770.00	21	\$1,890.00	32	\$2,880.00
7		Microsoft Bus Mouse with Adapter Card	\$112.25 *	48	\$5,388.00	19	\$2,132.75	29	\$3,255.25
8		BCS Hardware maintenance service/year.	\$400.00	47	\$18,800.00	19	\$7,600.00	28	\$11,200.00
9		Data Communication Services	\$1,500.00	44	\$66,000.00	21	\$31,500.00	23	\$34,500.00
					=====		=====		=====
					\$257,217.00		\$108,015.58		\$149,201.42
10	DISPLAY	NEC JC1401 Multisynch graphics monitor	\$581.84 *	37	\$21,528.00	19	\$11,054.92	18	\$10,473.08
11		NEC Multisynch GB-1 Graphics board	\$367.00	33	\$12,111.00	15	\$5,505.00	18	\$6,606.00
12		AMDEK 410A Amber monochrome monitor	\$200.00	10	\$2,000.00	0	\$0.00	10	\$2,000.00
13		HERCULES Graphic Card	\$180.00	10	\$1,800.00	0	\$0.00	10	\$1,800.00
					=====		=====		=====
					\$37,439.00		\$16,559.92		\$20,879.08
14	PRINTER	HP Laser Jet series II; 512Kb RAM; One EP (toner) Cartridge; one standard paper tray; Power cord.	\$1,647.00	32	\$52,704.00	19	\$31,293.00	13	\$21,411.00
15		2Mb Memory Board	\$657.00	32	\$21,024.00	19	\$12,483.00	13	\$8,541.00
16		Parallel Printer Cable	\$10.00	32	\$320.00	19	\$190.00	13	\$130.00
17		Standard Size Paper Tray	\$43.00	32	\$1,376.00	19	\$817.00	13	\$559.00
18		Legal Size Paper Tray	\$45.00	32	\$1,440.00	19	\$855.00	13	\$585.00
19		Prestige Elite Font Cartridge	\$99.00	26	\$2,574.00	15	\$1,485.00	11	\$1,089.00
20		Math Elite Font Cartridge	\$165.00	32	\$5,280.00	19	\$3,135.00	13	\$2,145.00
21		Epson FX-286e Dot Matrix/Wide Carriage Printer w Tractorfeed.	\$540.00	20	\$10,800.00	0	\$0.00	20	\$10,800.00
22		Parallel Printer Cable for Epson FX-286e	\$10.00	21	\$210.00	0	\$0.00	21	\$210.00
					=====		=====		=====
					\$95,728.00		\$50,258.00		\$45,470.00

NOTES: \* AVERAGE COST  
 \*\* INCLUDES 3 IBM PS/2'S

APPENDIX I - FY 1988 HW/SW EXPENDITURES

PROJECT 004

NO.	CATEGORY	ITEM	UNIT PRICE	TOTAL REQUESTED		OFFICE ENTITLEMENT		"POOL"	
				NO		NO		NO	
23	PLOTTER	HP 7475A Graphic Plotter w 6-pen Carousel for fiber-tip pens; 50 sheets of Plotter paper; assortment of f.t. pens in 2 line width & var.colors; power cord.	\$1,250.00	2	\$2,500.00	0	\$0.00	2	\$2,500.00
24		Serial Plotter Cable for HP7475A	\$15.00	2	\$30.00	0	\$0.00	2	\$30.00
25		Plotter Paper and pen kit	\$20.00	2	\$40.00	0	\$0.00	2	\$40.00
26		Overhead Transparency Film Kit	\$46.00	0	\$0.00	0	\$0.00	0	\$0.00
				=====		=====		=====	
					\$2,570.00		\$0.00		\$2,570.00
27	OTHER	Prestige Elite "M" Cartridge	\$166.00	2	\$332.00	1	\$166.00	1	\$166.00
28		Automenu	\$15.00	7	\$105.00	6	\$90.00	1	\$15.00
29		Typing tutor	\$38.00	3	\$114.00	0	\$0.00	3	\$114.00
30		Siedeways (3.11)	\$42.00	1	\$42.00	0	\$0.00	1	\$42.00
31		IBM PC/AT Keyboard Cables	\$10.00	4	\$40.00	0	\$0.00	4	\$40.00
32		IBM QuietWriter Maintenance	\$400.00	1	\$400.00	0	\$0.00	1	\$400.00
33		OCRB Font Cartridge for HP LaserJet	\$165.00	32	\$5,280.00	9	\$1,485.00	23	\$3,795.00
34		WordPerfect Dictionaries (all but French)	\$60.00	24	\$1,440.00	0	\$0.00	24	\$1,440.00
35		IBM Graphics Memory Module	\$186.00	1	\$186.00	0	\$0.00	1	\$186.00
36		IBM Memory Expansion Card	\$143.00	1	\$143.00	0	\$0.00	1	\$143.00
37		WordPerfect Templates	\$19.95	4	\$79.80	0	\$0.00	4	\$79.80
38		Print Director Spooler (serial)	\$695.00	14	\$9,730.00	0	\$0.00	14	\$9,730.00
39		IBM PC/AT Keyboard	\$150.00	4	\$600.00	0	\$0.00	4	\$600.00
40		IBM Quiet Writer Model 3	\$1,070.00	1	\$1,070.00	0	\$0.00	1	\$1,070.00
41		IBM DISPLAYWRITE II (ARABIC)	\$1,200.00	2	\$2,400.00	0	\$0.00	2	\$2,400.00
42		IBM Standard size paper tray Quietwriter	\$25.00	1	\$25.00	0	\$0.00	1	\$25.00
43		6' RS 232 serial cable 25 wire (Solunet)	\$9.10	54	\$491.40	0	\$0.00	54	\$491.40
44		Prestige elite 12 pitch Quietwriter 2	\$55.00	1	\$55.00	0	\$0.00	1	\$55.00
45		Courier 10 pitch Quietwriter 2	\$55.00	1	\$55.00	0	\$0.00	1	\$55.00
46		OCR font for Quietwriter	\$55.00	1	\$55.00	0	\$0.00	1	\$55.00
47		Yasmin (Arabic font) for Quietwriter 2	\$55.00	1	\$55.00	0	\$0.00	1	\$55.00
48		Quietwriter Single sheet feeder	\$220.00	1	\$220.00	0	\$0.00	1	\$220.00
49		Quietwriter sheet feeder adapter kit	\$22.00	1	\$22.00	0	\$0.00	1	\$22.00
50		Word Perfect French Dictionary	\$60.00	8	\$480.00	0	\$0.00	8	\$480.00
51		Print Director Spooler (parallel)	\$695.00	1	\$695.00	0	\$0.00	1	\$695.00
				=====		=====		=====	
					\$24,115.20		\$1,741.00		\$22,374.20

APPENDIX I - FY 1988 HW/SW EXPENDITURES

PROJECT 004

NO.	CATEGORY	ITEM	UNIT PRICE	TOTAL REQUESTED		OFFICE ENTITLEMENT		"POOL"	
				NO		NO		NO	
1	SOFTWARE	IBM DOS 3.3	\$66.00	51	\$3,366.00	19	\$1,254.00	32	\$2,112.00
2		Master Control Menu	\$50.00	32	\$1,600.00	10	\$500.00	22	\$1,100.00
3		Master Control File Manager	\$29.95	32	\$958.40	10	\$299.50	22	\$658.90
4		Master Control Security	\$29.95	32	\$958.40	10	\$299.50	22	\$658.90
5		LOTUS 1-2-3 V2.1	\$307.00	36	\$11,052.00	19	\$5,833.00	17	\$5,219.00
6		RBASE System V 1.1	\$380.00	37	\$14,060.00	19	\$7,220.00	18	\$6,840.00
7		Crosstalk XVI (IBM PC Version)	\$139.00	43	\$5,977.00	19	\$2,641.00	24	\$3,336.00
8		Word Perfect Word Processor 4.2	\$495.00	55	\$27,225.00	20	\$9,900.00	35	\$17,325.00
9		Microsoft Windows	\$73.00	43	\$3,139.00	19	\$1,387.00	24	\$1,752.00
10		Aremos II; (Annual License) 1.01	\$150.00	36	\$5,400.00	19	\$2,850.00	17	\$2,550.00
11		PCQuery	FREE	43	\$0.00	19	\$0.00	24	\$0.00
12		F.A.C.T.S. Asynchronous Communication	FREE	37	\$0.00	19	\$0.00	18	\$0.00
13		Key Contacts/Mailing List Package	FREE	29	\$0.00	13	\$0.00	16	\$0.00
14		Word Perfect Library	\$129.00	50	\$6,450.00	9	\$1,161.00	41	\$5,289.00
				=====		=====		=====	
				\$80,185.80		\$33,345.00		\$46,840.80	
BUDGET FOR PROJECT 004				\$528,833.00		\$227,000.00		\$301,833.00	
EXPENDITURES 1988 PROJECT 004				\$497,255.00		\$209,919.50		\$287,335.50	
				=====		=====		=====	
BALANCE PROJECT 004				\$31,578.00		\$17,080.50		\$14,497.50	

APPENDIX I - FY 1988 HW/SW EXPENDITURES

PROJECT 99N

NO.	CATEGORY	ITEM	UNIT PRICE	TOTAL REQUESTED	
				NO	
1	IBM PC/AT	IBM PC/AT (8MHZ) w 80286 microprocessor; 30Mb Fixed Disk; 512Kb RAM; one 5.25" 1.2Mb Floppy Drive; Adaptors for disk drives; Serial/parallel interface adapter; Enhanced keyboard.	\$3,495.00	1	\$3,495.00
2		One 5.25"/360Kb Internal Diskette Drive	\$146.00	1	\$146.00
3		One 128/640Kb Memory Expansion Option	\$227.00	1	\$227.00
4		IBM 80287 Math Co-Processor	\$244.00	1	\$244.00
5		Serial Adapter Cable	\$84.00	2	\$168.00
6		Serial/Parallel Adapter	\$97.00	1	\$97.00
7		IBM Graphics Memory Expansion Card	\$140.00	1	\$140.00
8		BCS Hardware maintenance service/year.	\$400.00	1	\$400.00
9		IBM Graphics Memory Module	\$180.00	1	\$180.00
10	DISPLAY	5154 Enhanced Graphics Color Display	\$600.00	1	\$600.00
11		IBM EGA Card	\$370.00	1	\$370.00
12	SOFTWARE	DOS 3.3 Operating System	\$66.00	1	\$66.00
				=====	
					\$6,133.00
1	DATA GENERAL	Model 2518, 10mg fixed disk and one internal 3.5" diskette drive. 8088 microprocessor; 8087 math co-processor; 256 kb memory; keyboard; electroluminescent screen display; DOS 2.11	\$2,886.00	3	\$8,658.00
2		256 bk Memory Module	\$256.20	3	\$768.60
3		128 kb Memory Card	\$170.00	3	\$510.00
4		300/1200 baud modem (internal)	\$306.00	3	\$918.00
5		PC liason (I/O cable and software)	\$122.00	3	\$366.00
6		Carrying Case	\$67.00	3	\$201.00
7		Express Loaner (hardware maintenance serv	\$330.00	3	\$990.00
8		Battery Charger 2538 (U.S.)	\$20.00	3	\$60.00
9		Battery Charger 2539 (International)	\$31.00	3	\$93.00
10		Battery Pack	\$133.00	9	\$1,197.00
11		BCS Hardware maintenance service/year	\$400.00	3	\$1,200.00
12	PRINTER	Hewlett-Packard Thinkjet Printer	\$372.00	3	\$1,116.00
13		Parallel Printer Cable	\$13.00	3	\$39.00
14	SOFTWARE	Lotus 1-2-3 (Spreadsheet)	\$307.00	3	\$921.00
15		Sideways 3.1	\$42.00	3	\$126.00
16		Aremos Econometric Software (license)	\$125.00	3	\$375.00
17		Typing Tutor 1.5	\$37.95	3	\$113.85
18		PFS:Professional Write	\$150.00	3	\$450.00
				=====	
					\$18,102.45

APPENDIX I - FY 1988 HW/SW EXPENDITURES

PROJECT 99N

NO.	CATEGORY	ITEM	UNIT PRICE	TOTAL REQUESTED	
				NO	
1	IBM PS/2	IBM PS/2 8560 Model 041 Base unit with: microprocessor; 1 mb RAM; one 3.5"/1.44mb diskette; drive/controller; one 44 mb fixed disk/controller; VGA and display port; serial port; parallel port; pointing device port; keyboard support; enhanced keyboard.	8 \$3,336.00	3	\$10,008.00
2					
3		IBM 80287 Math Co-Processor	\$331.00	3	\$993.00
4		Dual Asynchronous Adapter/A	\$90.00	3	\$270.00
5		Mouse	\$60.00	3	\$180.00
6		BCS Hardware maintenance service/year.	\$400.00	3	\$1,200.00
7		Data Communication Services	\$1,500.00	3	\$4,500.00
8		5.25"/360kb External Diskette Drive	\$295.00	3	\$885.00
9		5.25" External Diskette Drive Adapter/A	\$38.00	3	\$114.00
10		Serial Adapter Cable	\$39.00	6	\$234.00
11	DISPLAY	PS/2 Color Display	\$432.00	3	\$1,296.00
12	SOFTWARE	IBM DOS 3.3	\$66.00	3	\$198.00
13		LOTUS 1-2-3 V2.1	\$307.00	3	\$921.00
14		RBASE System V 1.1	\$380.00	3	\$1,140.00
15		Crosstalk XVI (IBM PC Version)	\$139.00	3	\$417.00
16		Word Perfect Word Processor 4.2	\$495.00	3	\$1,485.00
17		Microsoft Windows	\$73.00	3	\$219.00
18		Aremos II; (Annual License) 1.01	\$150.00	3	\$450.00
19		Word Perfect Library	\$129.00	3	\$387.00
20		Automenu	\$15.00	3	\$45.00
					=====
					\$24,942.00
1	OTHER	EDP Training Equipment	\$1,250.00	1	\$1,250.00
2		EDP Software Training Supplies	\$442.30	6	\$2,653.80
3		Print Director Spoolers	\$695.00	2	\$1,390.00
					=====
					\$5,293.80
BUDGET FOR PROJECT 99N					\$57,271.00
EXPENDITURES 1988 BUDGET 99N					\$54,471.25
					=====
BALANCE PROJECT 99N					\$2,799.75
TOTAL BUDGET FOR PROJECTS 004 AND 99N					\$586,104.00
TOTAL EXPENDITURES 1988 BUDGETS 004 AND 99N					\$551,726.25
					=====
TOTAL BALANCE PROJECTS 004 AND 99N ***					\$34,377.75

NOTES: \*\*\* DOES NOT INCLUDE ANTICIPATED EXPENDITURE OF APPROXIMATELY \$35,000.00 FOR A LOCAL AREA NETWORK

APPENDIX II  
CONSOLIDATED EDP BUDGET REQUEST FOR FY 1989

The consolidated request consists of the following projects, components and dollar costs:

Project 002 - Renewal of Lease & Maintenance (Existing Equipment)

1.	Annual BCS Microcomputer Maintenance (72 units @ \$400 each)	\$ 28,800
2.	Annual AREMOS License Fee (36 units @ \$150 each)	\$ 5,400
3.	Vendor Maintenance for Word Processing Machines	\$ 16,972
4.	Rental of Word Processing Machines	\$ 49,500
	Sub-Total	\$ 100,672

Project 004 - OED Office Systems

1.	Hardware, Software, Maintenance	\$ 616,821
	44 IBM PS/2 Computers	\$ 435,937
	6 IBM PS/2 Computers (contingent requests)	\$ 49,884
	9 Facsimile Machines	\$ 36,000
	1 Local Area Network (contingent request)	\$ 35,000
	NBI HW/SW Upgrades	\$ 5,000
	Non-standard Word Processing Systems	\$ 25,000
	Shared Reuters Pilot System	\$ 25,000
	Miscellaneous Requests for HW/SW	\$ 5,000
2.	UNYSIS Computer Usage Estimate	\$ 1,725
3.	Manpower	\$ 268,639
	Sub-Total	\$ 887,185
	Total Projects 002 and 004	\$ 987,857

**APPENDIX III**  
**COMPARISON OF FY 1988 ALLOCATIONS AND FY 1989 BUDGET REQUEST**

<b>Project</b>	<b>FY88</b>	<b>FY89</b>
001 General Support/Overhead	52,660	NA
002 Renewal of Lease/Maintenance	70,268	100,672
004 Office Systems:OED	748,000	887,185
99N Microcomputer Project	57,271	NA
<b>TOTAL</b>	<b>928,199</b>	<b>987,857</b>

APPENDIX IV - ITEMIZATION OF FY 1989 REQUEST FOR HARDWARE/SOFTWARE

NO.	CATEGORY	ITEM	UNIT PRICE	NO	ESTIMATED COST
1	WORK-STATION	IBM PS/2 8560 Model 041 Base unit with: 80286 microprocessor; 1 mb RAM; one 3.5"/1.44mb diskette; drive/controller; one 44 mb fixed disk/controller; VGA and display port; serial port; parallel port; pointing device port; keyboard support; enhanced keyboard.	\$3,336.00	50	\$166,800.00
2					
3		IBM 80287 Math Co-Processor	\$331.00	50	\$16,550.00
4		Dual Asynchronous Adapter/A	\$90.00	50	\$4,500.00
5		Mouse	\$60.00	50	\$3,000.00
6		BCS Hardware maintenance service/year.	\$400.00	50	\$20,000.00
7		Data Communication Services	\$1,500.00	50	\$75,000.00
8		5.25"/360kb External Diskette Drive	\$295.00	50	\$14,750.00
9		5.25" External Diskette Drive Adapter/A	\$38.00	50	\$1,900.00
10		Serial Adapter Cable	\$39.00	100	\$3,900.00
					\$306,400.00
11	DISPLAY	PS/2 Color Display	\$432.00	50	\$21,600.00
					\$21,600.00
12	PRINTER	HP Laser Jet series II; 512Kb RAM; one EP (toner) Cartridge; one st. paper tray; power cord.	\$1,647.00	19	\$31,293.00
13		2Mb Memory Board	\$657.00	19	\$12,483.00
14		Parallel Printer Cable	\$10.00	19	\$190.00
15		Standard Size Paper Tray	\$43.00	19	\$817.00
16		Legal Size Paper Tray	\$45.00	19	\$855.00
17		Math Elite Font Cartridge	\$165.00	19	\$3,135.00
18		OCR B Font Cartridge	\$165.00	19	\$3,135.00
19		Epson FX-286-e Dot Matrix/Wide Carriage Printer	\$540.00	2	\$1,080.00
20		Parallel printer cable for Exson FX-286-e	\$10.00	2	\$20.00
					\$53,008.00
1	SOFTWARE	IBM DOS 3.3	\$66.00	50	\$3,300.00
2		LOTUS 1-2-3 V2.1	\$307.00	49	\$15,043.00
3		RBASE System V 1.1	\$380.00	49	\$18,620.00
4		Crosstalk XVI (IBM PC Version)	\$139.00	50	\$6,950.00
5		Word Perfect Word Processor 4.2	\$495.00	51	\$25,245.00
6		Microsoft Windows	\$73.00	50	\$3,650.00
7		Aremos II; (Annual License) 1.01	\$150.00	50	\$7,500.00
8		PCQuery	FREE	50	\$0.00
9		F.A.C.T.S. Asynchronous Communication	FREE	50	\$0.00
10		Key Contacts/Mailing List Package	FREE	50	\$0.00
11		Word Perfect Library	\$129.00	50	\$6,450.00
12		IBM Arabic Displaywrite	\$1,200.00	1	\$1,200.00
13		Automenu	\$15.00	51	\$765.00
14		T.S.P. (Econometrics, statistics)	\$595.00	1	\$595.00
15		R.A.T.S. (Regression Analysis for Time Series)	\$300.00	3	\$900.00
					\$90,218.00
1	OTHER	Facsimile machine	\$4,000.00	9	\$36,000.00
2		Print Director 6 (serial or parallel)	\$695.00	21	\$14,595.00
3		Local Area Network	\$35,000.00	1	\$35,000.00
4		NBI HW/SW Upgrades	\$5,000.00	1	\$5,000.00
5		Non-standard Word Processing Systems	\$12,500.00	2	\$25,000.00
6		Miscellaneous requests for HW/SW	\$5,000.00	1	\$5,000.00
7		Shared Reuter's Pilot System	\$25,000.00	1	\$25,000.00
					\$145,595.00
TOTAL ALL CATEGORIES					\$616,821.00

**APPENDIX V  
SUMMARY OF ANTICIPATED FY 1989  
WORKSTATION CONFIGURATIONS IN OED**

OFFICE NUMBER	004 FY88	99N	OTHER *	REQUESTED FY89	TOTAL END FY89
1	2		1	3	6
2	2			3	5
3	2		1	2	5
4	1		1	4	6
5	6		1	1	8
6	5		1	1	7
7	3		1	3	7
8	3		1	2	6
9	4			0	4
10	1			0	1
11	1			2	3
12	1	2	1	2	6
13	1		1	3	5
14	1			2	3
15	1			3	4
16	3			5	8
17	6		1	0	7
18	1			1	2
19	1		1	0	2
20	1		2	4	7
21	2	1		5	8
22	1		1	4	6
<b>OED Sub-Total</b>	<b>49</b>	<b>3</b>	<b>14</b>	<b>50</b>	<b>116</b>
OED Training	2	1		0	3
Loaner Pool	0	3		0	3
<b>TOTAL</b>	<b>51 **</b>	<b>7</b>	<b>14</b>	<b>50</b>	<b>122</b>

NOTES:

\* Includes 6 machines (4 Compaqs and 2 PC/XT's) originally procured for use on a loaned basis; 1 PC/AT and 4 PC/XT's purchased under the former Office Automation Guidelines for OED and 3 PC/XT's provided to joint offices by the World Bank.

\*\* Includes 4 OED pilot machines purchased in FY 1987. Three of these machines were installed in Offices of Executive Directors. The fourth is used for training purposes in the OED Training Facility.