Audit of USAID/Washington's Management of Its Photocopying Program

Audit Report No. A-000-02-004-P

September 25, 2002

Washington, D.C.

September 25, 2002

MEMORANDUM

FOR: M/AS, Roberto J. Miranda

FROM: IG/A/ITSA, Melinda G. Dempsey

SUBJECT: Audit of USAID/Washington's Management of Its Photocopying Program (Report No. A-000-02-004-P)

This is our final report on the subject audit. In finalizing this report, we considered your comments on our draft report and have included this response as Appendix II.

In your response to our draft report, you did not concur with the two recommendations, or with the potential monetary savings of at least $400,000 in Recommendation No. 1. Therefore, a management decision has not been reached on either of the recommendations.

Please provide within 30 days any additional information related to actions planned or taken to implement these recommendations, as well as your proposed estimated savings amount.

I appreciate the cooperation and courtesy extended to my staff during the audit.

Table of Contents

Summary of Results

The audit was designed to determine whether the Office of Administrative Services managed its photocopying program economically and efficiently [page 4]. We determined that the Office did not manage the program economically and efficiently, as its cost per copy was 6½ cents, whereas our review of alternative photocopying management services available cost 1½ to 3½ cents per copy [page 5]. This high cost was incurred because USAID underutilized its copying capacity. Thus, given USAID's current photocopying demand, we conservatively estimate that it is incurring at least $400,000 per year more than what is reasonable. Accordingly, we estimate that USAID could save (or put to better use) at least $1.6 million over four years, the average useful life cycle for photocopying machines [page 7].

In addition, the Office was deficient in critical internal control areas. It did not have: (1) a comprehensive inventory control system [page 9]; (2) documented procedures to guide program management [page 9]; or (3) adequate administrative controls on processing invoices [page 10].

The report recommends that the Office of Administrative Services should outsource the photocopying program under a cost per copy agreement and implement adequate controls over the operation of that agreement [page 12].

In response to our draft report, the Office of Administrative Services stated that its goal for the copier program is to provide service when and where needed and in the most economical fashion. However, instead of agreeing to outsource the photocopying program, it intends to maintain its own management. This was due to concerns it had for customer satisfaction and the difficulty posed with early termination charges under one of its major lease agreements. Although we commend USAID's initial efforts to manage its photocopying program more economically and efficiently, we believe that its corrective actions are neither sufficiently economic nor efficient and thus do not adequately address our recommendations. Therefore, a management decision has not been reached on either of the recommendations [page 12].

Background

USAID's Automated Directives System, Chapter 512, states that the Bureau for Management, Office of Administrative Services, is responsible for providing photocopying services in a cost-effective manner to USAID/Washington offices. To accomplish this service, the Office of

Administrative Services has managed more or less 125 convenience photocopiers[1] within the Ronald Reagan Building.

In concert with the physical move to the Ronald Reagan Building during the summer of 1997, USAID conducted a major overhaul of its photocopying machine portfolio. The Office of Administrative Services entered into agreements with three manufacturers—Xerox Corp. (Xerox), Sharp Electronics Corp. (Sharp), and Oce-USA, Inc. (Oce)—to supply a portfolio of machines. At the time of audit, Xerox was the principal supplier with approximately 75 machines, Sharp was the supplier of 40 machines, and Oce was the supplier of 10 machines. Of the 75 Xerox machines, 73 were leased under a lease-to-own program. The other 2 Xerox machines as well as all 40 Sharp machines and the 10 Oce machines were owned by USAID.

On average, USAID/Washington produces over 1 million photocopies each month. Over the course of a year, USAID/Washington spends (not counting staff costs) nearly $1 million to produce these photocopies. The cost of these photocopies is covered predominately by agreements with three suppliers, who are responsible for the maintenance of the machines as well as all supplies (such as toner), except paper. USAID purchases the paper separately at about ½ penny per page.

Audit Objective

As part of its fiscal year 2001 audit plan, the Information Technology and Special Audits Division performed an audit of the management of the convenience photocopying program at USAID/Washington to answer the following audit objective:

Did the Bureau for Management, Office of Administrative Services, manage its photocopying program economically and efficiently?

Appendix I describes the audit's scope and methodology.

Audit Findings

Did the Bureau for Management, Office of Administrative Services, manage its photocopying program economically and efficiently?

The Office of Administrative Services (Office) did not manage its photocopying program economically and efficiently.

[1]Convenience photocopiers are those that are generally available for use by USAID staff and, thus, exclude special-use machines and the high production volume machines in use by the USAID print shop.

Based on comparable federal agency programs and alternative management program services, costs of programs similar to USAID/Washington should be in a range of 1½ to 3½ cents per copy. This compares to 6½ cents per copy for the USAID program. As a result, it is costing USAID at least $400,000 per year more than it should for photocopying (current annual costs are nearly $1 million), or at least $1.6 million when projecting the costs over 4 years—the average useful life cycle for photocopying machines.

In addition to a photocopying program that is not operating economically and efficiently, USAID's photocopying program has numerous internal control weaknesses relating to inventory management, operating procedures, and processing of invoices for payments.

USAID Can Save At Least $400,000 Annually

Despite the inherent requirement to provide services in a cost-effective manner, USAID did not manage its photocopying program economically and efficiently. USAID's cost-per-copy was 6½ cents whereas alternative photocopying management services cost 1½ to 3½ cents per copy. Consequently, USAID can save at least $400,000 annually or at least $1.6 million over 4 years—the average useful life cycle for photocopier machines. These unrealized savings are attributable to underutilized capacity and insufficient management oversight that has not satisfactorily stressed cost management.

Inherent with prudent use of U.S. taxpayers' dollars is the requirement to manage federal programs economically and efficiently. To relate this specifically to USAID's photocopying program, we reviewed (1) the results of recent and comparable evaluations performed by the Federal Deposit Insurance Corporation Office of Inspector General (FDIC/OIG) of FDIC copying programs[2] and (2) alternative photocopying management services within the U.S. Government. The FDIC/OIG evaluations reported that a target cost per copy rate of 2 to 3 cents was realistic and acceptable, and they noted that, according to the General Services Administration, agencies should spend no more than 3 cents per copy.

One alternative photocopying management service is provided by the Office of Multi-Media Services within the Department of State (State). They offer full service photocopying programs not only to State offices,

[2] *Evaluation of the FDIC Headquarters Copier Administration Program*, Evaluation Report No. 99-004 dated June 15, 1999, and *Evaluation of FDIC Regional Copier Program*, Evaluation Report No. 99-007 dated September 30, 1999.

but also to other interested governmental entities. For example, the former United States Information Agency (USIA) entered into a simple Memorandum of Understanding agreement with State in September 1997 to obtain a photocopying management program for 2.4 cents per copy.[3] Although State's current published cost per copy rates are higher, they can negotiate competitive cost per copy rates.

Another alternative photocopying management service is provided by GoTo.Gov, a self-sustaining, non-appropriated governmental entity within the Department of the Treasury. GoTo.Gov is a franchise fund established under the 1994 Government Management Reform Act to foster competition and creativity in government. GoTo.Gov provides a range of administrative support services to U.S. government agencies. It, too, can manage photocopying programs under a simple agreement and currently manages cost per copy programs that are comparable in size and copy volume to USAID for 1½ to 3½ cents per copy.

A third alternative is the Department of Labor's Northeast Regional Cooperative Administrative Support Unit (CASU). This CASU is one of several CASUs operating under various U.S. government agencies. They also are non-appropriated, entrepreneurial entities and were first initiated in 1986 by the President's Council on Management Improvement. The CASU indicated that it could provide a cost per copy program having a cost per copy tied to each of five different volume level machines. Given USAID's current volume and mix of machines, the overall average cost per copy would be about 2½ cents per copy. See Appendix III for more information about alternative cost per copy programs.

Given the results of our reviews of the FDIC/OIG evaluations and alternative management program services available, it is reasonable to deduce that economically and efficiently managed photocopying programs comparable to USAID's should cost in a range of 1½ to 3½ cents per copy. However, for the audited period January 2000 through March 2001, we found that USAID/Washington's cost per copy for its convenience photocopying program was 6½ cents. The cost per copy was obtained from the following summarized data for that fifteen-month period:

[3] State's cost per copy programs establish a per-copy rate based on its clients' estimated annual copying demand. To provide some comparison to USAID's copying demand, USIA's was about two-thirds that of USAID's, on an annual basis for the audited period. Unless otherwise stated, all references to cost per copy in this report include supply costs with the exception of paper, which costs approximately one-half cent per page. Current State cost per copy programs include the cost of paper; however, the 2.4 cost per copy program for USIA did not include the cost of paper.

Table of Copies, Total Cost, and Cost per Copy By Vendor

Machine Vendor	Number of Copies	Total Cost	Cost per copy
Xerox	8,807,000	$ 663,000	7.5 ¢
Sharp	6,306,000	$ 335,000	5.3 ¢
Oce	1,539,000	$ 81,000	5.3 ¢
Total	**16,652,000**	**$1,079,000**	**6.5 ¢**

Appendix I describes more detail of our audit's cost per copy methodology.

This high cost was incurred because USAID underutilized its copying capacity. In fact, the Office had placed little importance on the need to monitor or track copy volume. Furthermore, the Office had not placed responsibility for conducting periodic monthly meter readings. Volume was generally viewed by the Office as an insignificant number that sometimes appeared on the monthly lease and/or maintenance invoices. Those volume numbers were often inaccurate estimates or readings determined by the companies billing for their lease and maintenance services.

Strict discipline in maintaining monthly copying volume statistics by machine is fundamental in assessing whether the appropriate number and type of machines have been deployed. However, USAID's lack of attention to (and application of) actual copying demand proved to be significant for two reasons:

- USAID's overall average monthly copying demand was only about 7 percent of copying capacity, as measured against the manufacturers' recommended volumes,[4] and

- that demand represented only about 40 percent of the volume that its suppliers used in pre-determining lease and maintenance pricing for the type and quantity of machines acquired.

As a result, given USAID's current annual photocopying demand, we estimate that it is incurring at least $400,000 per year more than what is reasonable (current annual costs approach $1 million). Thus, we estimate that USAID could save (or put to better use) at least $1.6 million over a

[4] Of a total 125 copiers, we had both USAID's actual average and the manufacturers' recommended monthly volumes for 114 of them. When the manufacturers' recommended volumes were stated as a range, we used the low end of that range in our calculation of capacity utilization. We therefore believe the 7 percent estimate is a conservative one.

four-year span, the average useful life cycle for photocopying machines. These savings are very conservative estimates and are based on a program costing 3½ cents per copy—the high end of the documented cost range available of 1½ to 3½ cents. The savings range available to USAID, if in fact the cost per copy did range from 1½ to 3½ cents, would be as given in the following table:

Table of Available Savings Over Four Years

	Low-end Savings	**High-end Savings**
USAID Cost per Copy	6.5 ¢	6.5 ¢
Available Programs Cost per Copy	3.5 ¢	1.5 ¢
Savings per Copy	3.0 ¢	5.0 ¢
USAID's Annual Copy Volume	13,320,000	13,320,000
Annual Savings (nearest $1,000)	**$400,000**	**$666,000**
Four-year Savings	**$1,600,000**	**$2,664,000**

In addition to the Office's lack of attention on copying volume discussed above, we have identified other significant internal control problems relating to the management and operation of the photocopying program.

USAID's Photocopying Program Has Critical Internal Control Weaknesses

Government agencies are required to implement internal controls to provide reasonable assurance that the objectives of an agency are being achieved in the effectiveness and efficiency of operations. However, USAID's photocopying program has critical internal control weaknesses relating to inventory management, operating procedures, and processing of invoices for payments attributable to insufficient management oversight. These weaknesses contributed to USAID's high cost and inefficient operation.

A key factor in helping an agency to achieve program results, minimize operational problems, and improve accountability is to implement appropriate internal controls. The General Accounting Office's "Standards for Internal Control in the Federal Government" states that internal control should provide reasonable assurance that the objectives of an agency are being achieved in the effectiveness and efficiency of operations including the use of the entity's resources. The Standards also provide that:

- an agency must establish physical control over equipment to include periodic counts that are compared to control records;

- internal controls and all transactions and other significant events need to be clearly documented and readily available for examination;
- program managers need both operational and financial data to determine whether they are meeting their goals for accountability for effective and efficient use of resources; and
- pertinent information should be identified, captured, and distributed in a form and time frame that permits people to perform their duties efficiently.

However, we found that the Office was deficient in the above critical internal controls due to insufficient management oversight. We have categorized the deficiencies as follows:

Lack of Comprehensive Inventory Control System - A comprehensive inventory of photocopying machines was not available at the Office when we started our audit. An inventory listing was provided to us weeks after we began the audit. However, when we compared that inventory to our physical inventory of machines that were under the Office's management and located in the Ronald Reagan Building, the listing was substantially inaccurate and/or incomplete. For example, the inventory listing contained machine(s) that was/were:

- replaced but the replacement machine was not included;
- listed twice, each with different office locations and/or user responsibility;
- identified with incorrect serial numbers, physical location, and/or responsible user office; and
- unused for long periods and stored in closets.

In addition, the list contained other inaccurate or incomplete data relating to:

- cost to operate the machines;
- whether a machine was leased or owned;
- monthly copying volume usage (see earlier discussion); and
- installation date and/or lease commencement and termination dates.

No Documented Procedures to Guide Program Management – The Office of Administrative Services did not have written procedures to guide management of the photocopying program. For example, the Office did not have:

- defined methods to establish and monitor "right-sizing" USAID's portfolio of machines, i.e., matching the various USAID offices copying demand (via monthly meter reads) with the correct type and quantity of machines;

- standards or conditions under which a copier is replaced and/or disposed of, or when a copier could be moved from one office within USAID to another;
- a system to monitor copying costs, in total or per copy, or a definition of what a reasonable target cost per copy might be; or
- an analysis of cost effective alternatives of acquiring copying services including purchasing or leasing copying equipment or acquiring the services of a third party administrative support service provider.

In addition, personnel responsible for the management of the program did not have clear, measurable objectives (e.g., target cost per copy) for the program included in their annual employee work objectives.

Inadequate Administrative Controls on Processing Invoices – The Office of Administrative Services did not have controls in place to prevent the payment of invoices lacking sufficient detail to determine what was being billed as well as invoices previously paid. We believe that had the Office, for example, maintained a complete and accurate comprehensive inventory system discussed earlier, it could have served as a checklist in assuring that the monthly billings for each machine's lease and maintenance were for the correct amount and that a given month's services were paid only once.

In regard to Xerox machines, a fixed, pre-determined amount for each of the various models was payable for each month under a lease and maintenance agreement, except that the first month's amounts were to be prorated to the day of installation. For these machines, Xerox invoiced USAID summarily each month. Based on data initially provided by the Office, we calculated what was billable by Xerox and found that there was an unexplained variance for each of the fifteen months of our audit period. The total variance for the audit period was $26,168 overbilled. Several times we requested the Office to provide the list of machines, including date of installation, that Xerox summarily billed for by month. The date of installation was critical as several of these machines were indicated as having been installed within the months of our audit period. The lists we were provided by the Office, most of which were obtained from Xerox, revealed different dates for the same machines in question, some dates conflicting by as much as six months. Only after additional research by the Office with Xerox, and months after completion of our audit fieldwork, were we provided documentation allowing us and, thus, the Office, to generally reconcile the amounts that Xerox invoiced. It was clear that the Office was not able to readily explain what it was approving for payment to Xerox on a month-to-month basis.

In regard to Sharp machines, the Office approved the payment of several invoices for lease payments for a given month that had previously been paid under a different invoice number. The Office again did not have documentation readily available for examination to resolve the apparent duplicate payments totaling $54,223. The explanation for these payments was that digits within Sharp's invoices denoted that the months billed were for the current year, even though the description within the invoices (erroneously) stated the previous year's leases. Although these invoices indeed were not paid twice, this satisfactory explanation also required several requests for documentation and further research by the Office after completion of our audit fieldwork.

Other Issues

In addition to the above issues, we identified other findings which were not significant to the audit objective and, thus, are not included in this audit report. These findings were communicated to the Director of the Office of Administrative Services and to the Contract Audit Management Branch Chief, Office of Procurement, by a separate memorandum dated September 25, 2002.

Conclusions

We believe that the implementation of appropriate internal control systems to correct the deficiencies of the current photocopying program will be costly in terms of USAID's human resources.[5] On the other hand, we do not believe USAID can achieve significant savings by continuing to manage every aspect of the program in any similar fashion as it has in the past. Just a reassessment alone by USAID to right-size its client offices with the appropriate number and types of machines would be a major and costly undertaking.

Significant savings can be achieved, however, by utilizing the economies of scale concept that are built into alternative cost per copy programs such as those introduced in this report. Furthermore, the assessment for the appropriate number and types of machines that should be deployed are built into the cost per copy programs available. Moreover, the internal controls needed, for example, to implement an agreement with State, GoTo.Gov, or a CASU would be minimal—a simple inventory list and monthly meter reads to check against a single monthly invoice. We, therefore, are not making audit recommendations to correct the several

[5] We did not audit USAID's human resource costs relating to the management of its photocopying program. Such costs were in addition to the 6½ ¢ cost per copy cited.

internal control weaknesses of the current photocopying program. Rather, we believe USAID should negotiate a low cost per copy arrangement under an agreement with an U.S. Government entity, then institute the simple internal controls that are needed to implement the agreement. As a consequence, in addition to the potential monetary savings documented in this report, USAID human resources can be saved or put to better use.

In addition, the Office of Management and Budget provides guidance to U.S. government agencies on the appropriate use of commercial sources for activities. The Office of Management and Budget Circular No. A-76, "Performance of Commercial Activities," states that the U.S. Government should only perform an activity [such as the management of its copying program] provided that a cost comparison can show that the Government can operate the activity on an ongoing basis at an estimated lower cost than a qualified commercial source.[6] Our audit has documented that outside sources are available to manage the photocopying program at lower cost. Consequently, we believe that the Bureau for Management, Office of Administrative Services, should use an outside source to manage its photocopying program and institute appropriate controls.

> **Recommendation No. 1: We recommend that the Bureau for Management, Office of Administrative Services, after a review of the available cost per copy management programs, enter into an agreement with an outside source to manage its photocopying program to save at least $400,000 annually.**

> **Recommendation No. 2: We recommend that the Bureau for Management, Office of Administrative Services, implement management controls appropriate to the operation of that agreement.**

Management Comments and Our Evaluation

Based on the following discussion, we consider that a management decision has not been reached on either Recommendation No. 1 or Recommendation No. 2.

Management stated that its overarching goal for the photocopying program is to provide service when and where needed and in the most economical fashion. It agreed that there is currently too much copier capacity. Therefore, it is currently

[6] The analysis and justifications normally required under OMB Circular A-76 do not apply because they are superseded by the Government Management Reform Act's explicit authorization for franchise funds to provide common administrative support services to other agencies.

developing standard operating procedures and inventory controls for managing the current program. Further, it stated it is currently (and intends to continue) performing reviews for reducing capacity and costs over the next two years. After two years—in November 2004 when the current Xerox lease agreement terminates and when management plans a full competition—it believes significant savings can be achieved.

The Office of Administrative Services primarily noted two sets of concerns—lease termination charges and customer service. Specifically, management noted that the current lease with Xerox carries early termination charges equaling the remaining lease payments through November 2004. In regard to customer service, Xerox provides on-site service representatives, while their Sharp and Oce agreements provide for service within eight and four hours respectively of a service call, service response times which it apparently did not believe were available under the external per copy arrangements we recommended. Consequently, management could not confirm that a $400,000 savings is necessary or desirable from a customer service perspective.

We applaud management for wanting to take corrective steps for overseeing the current program now and over the next two years. And we appreciate the concerns about service to its clients and the difficulty posed by the early termination costs associated with the lease agreement with Xerox. However, as to the steps aimed at correcting the current copying program—a program more cumbersome than necessary with its various supplier lease and maintenance agreements—we believe that the steps proposed by management are neither sufficiently economic nor efficient. To better manage the existing program would require significantly more of USAID’s scarce human resources. Such additional costs are in addition to our documented cost per copy. Conversely, less human resources would be required to implement the simple controls over an outsourced program. This would achieve even greater savings. Furthermore, our recommendation to outsource the management of the photocopy program is consistent with the principles of OMB Circular No. A-76 as well as the President’s Management Agenda to promote competitive sourcing of commercial-type activities.

Another aspect of the USAID response is “right-sizing,” or down-sizing as management prefers. This is a service that the alternative management programs we documented include on an ongoing basis as part of their per copy rates. Even so, our audit’s savings are based on a one-for-one replacement of the entire inventory of USAID’s photocopying machines. As stated in the scope and methodology appendix, our audit did not assess whether the number, type, or physical deployment of photocopying machines were optimal within the Ronald Reagan Building. This is contrary to the Office of Administrative Services’ comments that our savings presuppose the use of production-type copiers. In addition, the Office stated that almost all of the Sharp and Oce machines are owned by USAID and that only maintenance charges are required. This is technically true but misrepresents the fact that many of these machines were originally leased and will soon need to be replaced. Any “right-sizing” or “down-sizing”, as noted by USAID management in their comments, could induce savings beyond the $400,000—the lower end of our projected savings range.

As for termination charges, the Xerox agreement includes early termination charges that are regrettably costly. Despite the high costs of Xerox machines (a fact we pointed out to management early in the audit), USAID has added new machines under the lease agreement and extended lease dates. Nevertheless, USAID can still achieve substantial savings by outsourcing (our recommendation) and will start deriving these savings immediately (net of termination charges). The $400,000 annual savings was a conservative amount. Based on the detail studies we performed that documented realistic savings of about 4 cents per copy, $530,000 annual savings were possible, subject to reduction by any residue of the Xerox termination charges. Furthermore, we believe that management has effectively acquiesced to a framework that will not allow for significant savings to be achieved until November 2004.

As for customer service, alternative photocopy management programs on a cost per copy basis are offered with relatively short turnaround time for machine service. For the three programs documented within this report, turnaround service was specified as four hours or less for two of the programs and six hours or less for the third program. Excluding Xerox, such turnaround times compare favorably to the current USAID arrangements. The current Xerox arrangement is not included in this comparison because of its exorbitant price and the apparent lack of necessity for on-site technical service. For example, we have observed that throughout the Ronald Reagan Building photocopying machines are easily accessible and available if a specific machine is temporarily out of service. Thus, on-site service is a questionable necessity. Furthermore, the current servicing arrangements are inconsistent. Xerox machines have on-site service, whereas Sharp machines have an eight hours turnaround time and Oce machines have a four hours turnaround time.

In addition, customer service has to be considered using cost as an element. The statistics presented in the table on page 7 reveal that the effective marginal cost that USAID has incurred for Xerox’s on-site technical service was 2.2 cents per copy (the difference between Xerox’s 7.5 cents to Sharp and Oce’s 5.3 cents), or about $155,000 per year. That marginal cost of 2.2 cents per copy (alone) almost equates to the full cost of the per copy alternative management programs we documented—ranging from 2.35 to 2.5 cents (see Appendix III).

In summary, we commend management’s initial efforts to manage this program more economically and efficiently. However, its corrective measures do not adequately address our recommendations. We believe that our recommendation to outsource this photocopying program is both achievable and consistent with U.S. government policy. Furthermore, our savings estimate of at least $400,000 annually is achievable and based on conservative rationale. These savings are significant. To place this into perspective, according to USAID Office of Budget data, the average cost for a Washington, D.C. staff position is $102,000 (salary, retirement, social security, Thrift Savings Plan contributions, Medicare, cash awards, and health insurance) in fiscal year 2002. The savings available of $400,000 is roughly the equivalent of supporting four Washington staff.

Scope and Methodology

Scope

The Office of Inspector General in Washington, Information Technology and Special Audits Division, conducted this audit, in accordance with generally accepted government auditing standards, to determine if the Office of Administrative Services managed its photocopying program economically and efficiently. The audit covered operations for the period from January 1, 2000, to March 31, 2001. This time period was selected in order to have one year of cost and volume data and to use the most current data obtainable at the start of our audit fieldwork. We reviewed the 125 photocopying machines within the Ronald Reagan Building and the photocopying machine costs—approximately $1.1 million—for the same 15-month period. Due to substantial problems with available source information for inventory, photocopying volume, and costs, we independently created our own inventory, made assumptions regarding photocopying volume when source data was either missing or obviously faulty, and used varying sources to determine costs when source data was either missing or obviously flawed. The Methodology section provides further detail. We reviewed the management controls including inventory controls, administrative procedures to guide program management, and administrative controls on processing invoices. There were no prior audit findings of the photocopying program. The audit fieldwork was conducted at USAID headquarters in Washington, D.C. from April 11, 2001 to March 5, 2002. Subsequently, the Office requested additional time to provide documentation to account for payments that appeared to be either duplicate or without explanation. This documentation was provided in several installments through June 27, 2002.

Methodology

We surveyed reports from other federal government inspectors general to identify prior audits of photocopying programs. Based on this survey, we identified relevant work at the Inspector General of the Federal Deposit Insurance Corporation (FDIC). We then interviewed FDIC Inspector General audit staff to discuss their findings and methodology.

We interviewed officials as well as reviewed and tested documentation supporting USAID’s photocopy management at the Ronald Reagan Building. These documents included inventory lists of machines; procurement negotiation memoranda, contracts, purchase orders, lease and maintenance agreements; various program obligation, expenditure, and budget status reports; machine meter readings; suppliers’ invoices; officials’ work objectives under the agency’s annual evaluation program; and relevant sections of the Automated Directives System. We reviewed USAID’s electronic paid invoice files with voucher payment officials at the USAID

Financial Management Office. Further, we reviewed photocopying machine manufacturers' specifications relating to recommended copying volumes. We surveyed available photocopying management programs within the federal government including the Department of State's Multi-Media Services Division, the Treasury Department's GoTo.Gov, and the Department of Labor's Cooperative Administrative Support Unit. Further details on these programs are discussed in Appendix III.

Our audit opinion to answer the audit objective was based on our professional judgement. The audit objective was conducive to using a materiality threshold to base our opinion; however, at the beginning of the audit we not only did not know what USAID's cost per copy was, we also did not know what was an acceptable criteria for comparison. This information was not clear until near the end of our fieldwork. Nevertheless, as the audit report reveals, the differences between USAID's cost per copy and acceptable alternatives were very substantial—6½ cents as compared to 3½ cents or less.

Initially we sought to determine the program's total costs from various expenditure reports that the Office provided in response to our requests for documentation supporting their cost of operating the photocopying management program. However, we learned that there were material problems with the timing of the expenditures identified in those reports. For example, disbursements were sporadic and significantly later than the month they were applicable. Therefore, as these reports could not be relied upon, we sought to carefully examine the details of invoices paid to Xerox, Sharp, and Oce in order to match actual cost to the applicable months of our audit period. We expected the Office to maintain such paid invoice files. However, we found this not to be the case—the files were unorganized and incomplete. We then examined USAID Financial Management Office's paid invoice files to determine costs. By examining these invoices for the indicated billable month for a given machine, we expected to arrive at the actual amount paid specifically applicable to the copying volume of our 15-month audit period. Even then, we could not rely totally on Financial Management's paid invoice files to determine the full costs because a number of invoices were missing. In cases when we could not find a paid invoice for a predetermined fixed amount, such as monthly lease and maintenance payments, and we knew that for a given month there should have been a paid invoice, we included the cost of those months in our cost calculation. In cases of missing invoices for variable billable amounts that are based on variable monthly volume, we included the average of costs obtained for those months for which we located paid invoices.

Costs included in our calculation were direct costs, excluding paper, involving actual disbursements applicable to the photocopying volume generated for the audited period. Therefore, the costs included payments for leases, maintenance, and supplies. However, in addition to paper, the costs did not include depreciation for USAID-owned machines,[7] energy to operate the machines, cost of floor space, or cost of USAID's human resources to manage the program.

Costs referred to above were determined for each machine during the audit period and were grouped by machine manufacturer, i.e., Xerox, Sharp, and Oce. These costs were then applied to copying volume generated, as described in the following paragraph, by the three machine groups to derive average cost per copy for the 15-month period of our audit and an average 12-month period (one fiscal year).

To determine the number of photocopies taken during the audit period, we obtained meter readings from photocopying management staff. We intended to simply subtract the December 1999 period ending readings from the March 2001 period ending readings. However, this could not be done in many cases because of various reliability problems with the meter readings provided. There were often cases of missing or non-sequential series of monthly readings in the 'middle' of our audited period, and, consequently, this posed problems in an attempt to manage the program economically and efficiently. Nevertheless, it did not pose a problem to us in calculating volume when we had reliable beginning and ending readings. However, in those cases that we had problems with the beginning or ending readings, we applied the average volume of the months we had reliable meter readings to the month(s) we had data problems. When deemed necessary, we corroborated the ending meter reading for reasonableness by comparing it to our own meter reading recorded at the time we performed a physical inventory, as further described below.

We also determined utilization rates (as a percentage) for each of the 125 machines. The denominator used to calculate the utilization rate was the manufacturer's recommended monthly volumes for each photocopy machine model. In those cases where the manufacturer's specification was a range, we used the low end of the range to employ a conservative approach. The numerator was derived by determining the actual volume as described earlier.

[7] Most of the machines used during our audit period were under leases. Those that were (or became) USAID-owned anytime during our 15-month audit period were either purchased prior to that period, owned according to lease-to-own agreements prior to that period, or became USAID-owned at the termination of lease-to-own programs during the period. Therefore, there were no purchases of convenience photocopying machines during the 15-month audit period.

We identified the inventory controls needed to manage a photocopying program economically and efficiently based on relevant internal controls required by the U.S. General Accounting Office's "Standards for Internal Control in the Federal Government." On this basis, we determined that management must, at a minimum, maintain an inventory control system that documents and records the following data in a timely and accurate manner: model, serial number, installation date, specific location, actual use rate including maintenance downtime, manufacturers' recommended use rate, cost of purchase or lease (as applicable), maintenance and repair cost, and date and manner of disposition. As no inventory of any kind was available to us when we began our audit, we performed a 100 percent physical inventory of USAID photocopying machines in the Ronald Reagan Building and recorded relevant inventory data.

We determined if the Office of Administrative Services had updated written procedures to guide program management in deploying the optimal type and number of machines and whether actual cost per copy data was maintained and monitored against a target. Our audit did not assess whether the number, type, or physical deployment of photocopying machines were optimal within the Ronald Reagan Building.

We did not determine if USAID's uneconomic and inefficient photocopying program was, in part, caused by the original contracting actions that negotiated the lease of the bulk of photocopy machines in 1997 for two reasons: (1) the age (about 5 years) of the contracting actions and (2) the primary ongoing responsibility of the Office of Administrative Services to manage its own photocopy program. We also did not audit these original contracting actions to ensure that they conformed to procurement regulations.

In regard to the Office of Administrative Service's processing of invoices to the USAID Financial Management Office for payment, we reviewed whether administrative controls were in place to prevent the Office from processing duplicate and/or otherwise unexplained invoices to Financial Management for payment. Although our audit objective was not to identify duplicate and/or unexplained invoice payments, we however found several instances that required further explanation during the course of determining costs associated with the Sharp and Xerox machines for the period of our audit—January 1, 2000 to March 31, 2001.

Our audit reviewed the 125 photocopiers used by USAID within the Ronald Reagan Building. (The precise number of photocopiers in use actually varied slightly from 125 at different points of time during the audit period January 1, 2000 to March 31, 2001.) The audit did not cover the use of photocopiers in other Washington, D.C. locations or overseas locations. In addition, our audit focused on what were considered to be "convenience" photocopiers. These photocopiers are the machines generally available for use by USAID staff. We consequently did not cover high production volume machines in use by the USAID print shop or other special-use machines. We also did not audit the use of paper for the photocopier machines except to acknowledge the quantity used and its per sheet cost approximately ½ penny per sheet. This was due to paper not being normally included within price quotes for cost per copy programs and estimates.

Management Comments

September 6, 2002

MEMORANDUM

TO: Melinda Dempsey, IG/A/ITSA

FROM: Roberto J. Miranda, M/AS/OD

SUBJECT: USAID/Washington's Management of Its Photocopying Program (Report No. A-000-02-xxx-P)

Thank you for this thorough and detailed review of USAID copier operations. The Office of Administrative Services is committed to making our organization a world-class service provider. We will attempt to use your recommendations to guide our improvement efforts.

The convenience copier program is budgeted in FY 2002 for $868,200. This is 9.2 percent of M/AS's non-rent budget, so there is much motivation to discover savings where possible. The copier program has not undergone a major change since 1997. This audit is timely and will serve as a starting point for our efforts to provide the best value and service in our copier program.

The overarching goal of the USAID convenience copier program is to provide service when needed, where needed, and in a most economical fashion.

At the time of the move to the Ronald Reagan Building, it was decided to locate one production-type copier on each floor (two through eight) and convenience copiers throughout the various work areas at the rate of one copier for 30 employees. Prior to the move, the agency had utilized three manned copier centers with additional walk-up copiers in high production areas, a main print shop, and additional convenience copiers throughout Agency space as needed. At the time of the move, USAID estimated a need for seven production-type and 106 convenience copiers. An in-house analysis determined that a combination of leased and lease-to-purchase equipment would best meet the needs of USAID. These two options provided on-site copier maintenance that was unavailable in a "per copy" lease rate.

M/AS/CPD is currently conducting a review of the copier lease agreements to assess options for saving funds by downsizing copiers. This assessment will include a review of:

- average copier volume per machine
- peak copier volume per machine
- need for auxiliary services
- copiers per employee
- distance to next copier
- Section 508 compliance
- service record by machine
- current lease and maintenance terms
- client satisfaction

It is clear from the audit and M/AS/CPD confirms that USAID has excess copier capacity at this time. It appears that the production-type copiers located on each floor are currently generating approximately 24 percent of their peak volume. Convenience copiers were placed upon demand with justification and have been left in place while needs may have changed. There is a need for development of clear standards for justification and review of convenience copiers.

USAID is reviewing options within our current contract agreements. At this time, there is a limited amount USAID can do with the production-type copiers. Xerox holds the lease for 67 copiers. At the time of this agreement, Xerox accepted a trade of 60 copiers. The Early Termination Costs for these copiers are built into the current lease and effectively require a payoff totaling the lease payments remaining on the agreement at the time of termination. The current lease will terminate in November 2004. This provides ample time for M/AS/CPD to analyze needs and perfect a plan for optimal placement of production and convenience copiers.

The audit recommends that USAID move to a service arrangement based on a "per copy" charge. In the past, a "per copy" rental system was used for convenience copiers.

This system did not include on-site service personnel and frequently entailed copier downtime of up to 24 hours. Current maintenance agreements with Sharp Electronics provide preventive maintenance and service response time of 8 hours or less. The maintenance agreements with OCE provide preventive maintenance, routine copier supplies (not including paper) and a 4 hours or less response time. Rates for these agreements are determined on a "per machine" basis. Xerox charges are based on a total monthly allowance for all copiers under one volume band. The contract also includes on-site maintenance and supplies.

With the exception of three newly leased OCE machines, all Sharp and OCE machines are owned by the Agency so that only maintenance is paid on an ongoing basis.

It is anticipated that a thorough review of all aspects of USAID's copier operations can be completed by November 2003 allowing time for a full competition of needs for November 2004. While conducting this review, USAID will adjust machinery where possible to save funds and provide optimal service.

USAID seeks to verify with the Inspector General the rates cited in the report to determine which aspects of our agreements weigh most heavily in the increased costs. M/AS/CPD believes that some inefficiency of cost may be necessary to provide the convenience required by our customers, though great savings are likely to be generated after the termination of our current Xerox agreement. We, therefore, cannot confirm at this time that a $400,000 savings is necessary or desirable from the standpoint of customer service. We believe that a cost of 1 1/2 to 3 1/2 cents per copy presupposes a production-type usage of copiers that is inconsistent with USAID staffing and variable needs.

M/AS/CPD is in process of developing Standard Operating Procedures for the Copier Program Management. To assist in future reviews and assure good practice in inventory management, these procedures will provide for continuing development and maintenance of a consolidated inventory of copiers developed from the vendor inventories prepared for this audit. This Consolidated Inventory contains the following:

- make
- model
- serial number
- placement (room number)
- size of equipment
- installation date
- monthly maintenance cost

This inventory is now a living document that is updated as copiers are purchased, traded, and relocated to different offices. We also have a replacement plan that contains the installation date, life span of the copier and the replacement date. The Inventory and Replacement Plan will be consolidated into one document along with maintenance histories to allow easy access to all information necessary to manage and review the copier program. Placement and size of copiers are also located on the Agency AutoCAD document for easy review.

We believe that this review and these procedures will facilitate improved copier management and significant savings after November 2004.

We appreciate the considered review of the Office of the Inspector General.

Alternative Photocopy Management Programs

The purpose of this appendix is to illustrate alternative photocopy management programs. This presentation is intended for information purposes and to help USAID management with a "starting point" with which to begin corrective action on Recommendation No. 1. We are not recommending any one of these alternative programs over the other or over any of the other programs that are available.

Department of State Office of Multi-Media Services

In September 1997 the former United States Information Agency (USIA) negotiated a Memorandum of Understanding agreement with the Department of State (State) to provide a photocopying management program at a cost of 2.4 cents per copy. Under the agreement, State provided a portfolio of selected copying machines appropriate to USIA's offices' demands and applications. The cost per copy was based on anticipated annual copy volume of 9,281,250 for a total of 48 machines. The resulting annual cost of $222,750 was the minimum or "base" charge of the program and, thus, was stipulated as the amount payable to State even if USIA's actual volume was less than the anticipated volume. Copies in excess of the anticipated annual volume were to be billed at the same 2.4 cents per copy. The negotiated price of 2.4 cents reflected USIA turning over to State 48 machines it owned that were typically four or five years old.

Under the agreement, the State Department Office of Multi Media Services was responsible for:

- making all contractual arrangements for the procurement and maintenance of new machines with the manufacturers;
- coordinating and scheduling delivery and installation of the new machines by the manufacturers, as well as removal of the trade-ins;
- coordinating requests for maintenance and repair of machines through the manufacturers within four hours of service call;
- scheduling user training with the manufacturers once the new machines were installed;
- providing unlimited copy machine supplies, such as toner cartridges and staples, but excluding paper, within three business days of an order;
- monitoring performance of machines and providing new replacements for faulty performing ones;
- monitoring the volume usage of the machines in order to recommend relocation or replacement with a lower or higher volume machine as appropriate, and adjusting the minimum (or base) volume and cost accordingly;
- arranging for the physical relocation of copy machines as needed; and
- providing one invoice per month containing the following data:

- machine location with office symbol and room number,
- machine manufacturer, model, and serial number,
- monthly copy volume and cost by machine,
- year-to-date copy volume and cost by machine,
- total of monthly copy volume,
- total year-to-date copy volume and cost, and
- the amount due for the month.

State's current published cost per copy rates are higher than the above stated 2.4 cents program. Although the program currently offered is essentially the same as that provided to the former USIA, State's program now provides paper. Another difference in the current published program is that all copies in excess of the minimum or base charge, regardless of what that base cost per copy is, are billed at a rate of 2½ cents.

USIA was the only non-State agency that had participated in State's cost per copy program. The State official responsible for the program stated that they were available to negotiate a program with USAID management. He also stated that their program could be tailored to meet the needs of USAID at attractive terms in both service and cost.

GoTo.Gov

GoTo.Gov is one of several entrepreneurial organizations within the U.S government that provide a range of administrative support services on a competitive basis within or between agencies. It operates as a self-sustaining, non-appropriated entity within the Department of the Treasury, and was initially a pilot program established under the 1994 Government Management Reform Act to foster competition and creativity in government. According to program information, GoTo.Gov currently services over 65 federal governmental organizations for its cost per copy program that are managed under a simple agreement. GoTo.Gov said that programs comparable in size and copy volume to USAID are performed for a cost of 1½ to 3½ cents per copy to its clients.

Given USAID's actual photocopying volume, GoTo.Gov indicated that it could provide its cost per copy program at 2.35 cents per copy. The cost was calculated using the same number of machines that USAID currently deploys (125) but using a mix of machine models more appropriate to USAID's actual copying demand (whether an upgrade or downgrade). All machines provided through Go.To.Gov would be new. Similar to the State program, the price per copy was based on a minimum or base volume, which in USAID's case is its actual annual volume. In addition, and again similar to State's program, as quantity or configuration of machines changes, so do the cost per copy and billable minimum copies change. GoTo.Gov also indicated that under this program, it also would provide:

- all service, repairs, and preventive maintenance;
- all supplies, excluding paper;
- delivery (within 30 days), installation, and training;
- after installation of the new machines, relocation of up to 5 percent of the machines;
- service response time within six hours;
- monthly meter readings;
- excess copies over the base volume at the same 2.35 cents per copy;
- ongoing recommendations for deploying the appropriate number and type of machines;
- machine upgrades without penalty; and
- monthly billing with actual usage by machine.

Department of Labor Northeast Regional Cooperative Administrative Support Unit

The Department of Labor's Northeast Regional Cooperative Administrative Support Unit (CASU) is a program within an interagency network of federal entrepreneurial organizations that provides a full range of administrative and operational support services to federal agencies on a cost reimbursable basis. The CASU program was first initiated in 1986 by the President's Council on Management Improvement and is operated under guidance from a local interagency board of directors.

Rather than providing one overall cost per copy applicable to the entire photocopying demand volume of USAID's, the CASU indicated that each model/machine deployed would have its unique cost per copy structure. Based on USAID's actual photocopying volume and current mix of machines deployed, CASU indicated cost per copy rates based on a minimum monthly volume for the various new model machines would be as follows:

Department of Labor Cost per Copy Estimates

Type	Minimum Volume	Cost per Copy	Cost per Copy > Min.
I	1,500	5.99 ¢	1.68 ¢
II	4,500	3.29 ¢	1.68 ¢
III	13,500	1.95 ¢	1.46 ¢
IV	22,500	1.82 ¢	1.46 ¢
V	36,500	1.63 ¢	1.15 ¢

Our analysis which applied the CASU's above cost per copy rate structure to USAID's actual copying volume resulted in an overall average cost per copy of about 2½ cents.

The CASU also indicated that under its program, it would provide:

- all maintenance;
- all consumable supplies except paper;
- delivery (within 30 days), installation, and training;
- service response time within four working hours;
- monthly meter readings;
- consolidated monthly billing;
- provision for one funding document covering all machines; and
- removal of machines at no penalty if due to lack of funding or reorganization outside the agency's control.