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GOVERNMENT PRINTING

Comparison of DOD and GPO Prices for Printing and Duplicating Work



**National Security and
International Affairs Division**

B-259522

February 17, 1995

Congressional Committees

As set forth by the House report accompanying the fiscal year 1994 Department of Defense (DOD) Appropriations Act and as requested by the former Chairmen of the Subcommittee on Defense and the Subcommittee on Legislative, House Committee on Appropriations, we reviewed issues related to the costs, prices, services, and operations of the Government Printing Office (GPO) and the Defense Printing Service (DPS). Our April 1994 report addressed issues related to GPO and DPS costs, services, and operations.¹ In this report, we address the prices charged to customers for acquiring printing and duplicating work from those agencies. Our objective was to determine whether there was a difference in the prices charged by the two agencies. As stated in our April 1994 report, questions about the adequacy of DPS' cost information precluded a cost comparison of the agencies' operations.

Background

In our April 15, 1994, report, we reported that in recent years, controversy has arisen over the printing operations of various agencies. This was because some agencies wanted to publish their work independent of GPO involvement. This controversy is largely the result of significant advances in publishing technologies. In presenting matters for congressional consideration, we noted that the framework of laws and regulations used to manage the government's publishing activities has been in place for many years and now seems the appropriate time for a reassessment. We further stated that as Congress continues to review the various legislative proposals, it may wish to consider an alternative framework built on sound business processes and changing publishing technologies. Appendix I is an extract from our April 15, 1994, report.

By law, GPO, a legislative branch agency, provides printing-related services to all branches of the federal government—either by producing the work in-house or contracting with private vendors. For the most part, GPO uses its in-house resources to produce printing-related work for Congress, while it contracts with the private sector to provide similar services for executive branch agencies. In fiscal year 1994, GPO provided \$724.4 million in printing-related services for the government—\$197.6 million through in-house resources and \$526.8 million through commercial procurement.

¹Government Printing: Legal and Regulatory Framework Is Outdated for New Technological Environment (GAO/NSIAD-94-157, Apr. 15, 1994).

DPS is DOD's single manager for printing and duplicating operations. It was established in April 1992 when the printing-related operations of the military services and defense agencies were consolidated. At its inception, DPS had an authorized staffing level of 3,694 persons and 350 printing-related facilities. DPS has since reduced its infrastructure as DOD continues to downsize. As of January 1995, DPS reported that it had 2,343 persons on its staff and 256 printing-related facilities. Under current procedures, DOD customers submit printing-related requirements to DPS, which satisfies most of these needs either through its in-house resources or through GPO contracts with the private sector. In fiscal year 1994, DPS produced \$220.4 million of work in-house and procured \$177.4 million of work—\$167.8 million of the latter was procured through the GPO.²

DPS sends the majority of its printing work to private vendors on contract to the GPO and maintains most of its duplicating work in-house. For the most part, in-house work comprises relatively low dollar value work. For example, in fiscal year 1993, 75 percent of the DPS' duplicating requisitions were priced under \$103, and about 50 percent were under \$28.

The prices DOD customers pay for their printing and duplicating work vary according to the nature of the work, the provider of the work, and the business arrangements in place to provide it. For work performed in DPS facilities, DPS uses a uniform nationwide pricing schedule that is based on the various production processes and costs associated with producing a product. Customers are charged schedule prices, which are adjusted annually, and the revenue is used to offset costs associated with producing the work. Prices are adjusted throughout the year to reflect changes in paper prices. For work procured under GPO contracts, customers are usually charged a private vendor's fee and administrative surcharges assessed by GPO and DPS. Contractor prices are largely dictated by the economic forces of the marketplace. In those cases in which GPO decides to produce the work in-house rather than contract for it, GPO most often prices the work at a level to cover the production costs. However, in some cases, it offers discounts and may charge the prevailing commercial rate.

By comparing prices charged to the customer rather than costs of the services provided, our analysis took the perspective of the DOD customer who is interested in obtaining a particular service at the lowest price. To determine the extent to which price differences reflect differences in costs would require a detailed analysis of GPO's and DPS' cost accounting

²The DPS in-house figure includes \$29.6 million of cost-per-copy contract work and self-service copying.

systems. As discussed in our April 1994 report on government printing issues, we attempted but could not make a meaningful comparison of GPO and DPS costs because (1) the two agencies capture costs differently and (2) there are concerns regarding the completeness, accuracy, and reliability of DPS' cost accounting system.

Price Comparison Methodology

Whether DOD customers would be best served by having their printing and duplicating work produced in DOD facilities or provided by GPO has been the subject of debate for many years. Several price comparison studies have been performed in recent years; however, because of perceived or actual limitations in the conduct of these studies, none has been widely accepted.

As we developed our price comparison methodology, we took into account the criticisms of prior studies, the concerns of GPO and DPS, and the comments of external printing consultants. Our methodology was (1) based on a representative sample of DPS' \$221 million fiscal year 1993 nationwide in-house workload, (2) designed to capture prices based on existing business conditions, and (3) reviewed by the consultants. During the conduct of the study, we also implemented various controls to minimize the possibility of agency bias on the results.

Once we developed our sampling framework, our overall conceptual approach for performing the price comparison was to have DPS send the sample requisitions actually received from its customers during fiscal year 1994 to GPO, who for the most part contracted to have the work done. The contractors actually performed the work and billed GPO for that work. We then took the price charged by GPO to DPS' customers and compared it with the price DPS estimated it would have charged to have performed the work. The results of this sample comparison were then projected against DPS' fiscal year 1994 workload.

Our price comparison was based on a statistically representative sample of 303 printing and 685 duplicating DPS customer-requested requisitions produced between April and September 1994. Collectively, these requisitions represented 327 printing and 1,193 duplicating products. We based our conclusions on a dollar-weighted sample of printing and duplicating requisitions. The fiscal year 1994 customer-requested products submitted by DPS plant officials were based upon criteria that we established from the products described on a set of validated fiscal year 1993 requisitions.

The submissions were reviewed by an in-house panel of printing and methodology specialists and the consultants. As DOD customers routinely submitted requisitions, DPS officials chose those requisitions that were similar to our criteria and, rather than producing the work in DPS facilities, sent it to GPO, who largely had the work produced by contractors. Plant officials sent us the documentation associated with this work. Work passing our panel's and consultants' review was used as the sample for this study. The GPO bills for our sample were then compared with the prices DPS would have charged if it had done the work in-house. Appendix II contains a technical description of our methodology and lists the external consultants we used.

Results in Brief

A meaningful cost comparison of the services provided by GPO and DPS cannot be made because these agencies capture costs differently and there are longstanding questions regarding the reliability of DPS' cost accounting system. Consequently, as agreed, we used price as a comparative measure. We recognize that a price comparison does not show which agency's services are more economical to the government. Instead, it shows what customers are paying for services. Table 1 shows the DPS' 1993 workload and the results of our price comparison projected to DPS' 1994 workload.³

Table 1: Analysis of GPO and DPS Prices

Dollars in millions					
Dollar value of requisitions	1993 DPS workload		1994 price difference		
	Dollars	Number of requisitions	Favors	By percent	By dollars ^a
Printing					
Over \$500	\$19.5	11,000	GPO	21.0 to 21.6	\$4.2
\$500 or less	5.4	51,000	DPS	30.5 to 31.3	1.7
Total	\$24.9	62,000	GPO	9.9 to 10.1	\$2.5
Duplicating					
Over \$500	\$178.0	25,700	GPO	0.6 to 0.8	\$1.3
\$500 or less	17.6	286,800	DPS	57.0 to 57.6	10.1
Total	\$195.6	312,500	DPS	4.0 to 5.0	\$8.7

Note: The terms "printing" and "duplicating" represent our categorization of DPS' workload. See appendix II.

^aTotals may not add due to rounding.

³For purposes of our analysis, we assumed the workload mix was the same in 1994 as it was in 1993.

During our review, GPO officials pointed out that they believed if more use were made of term contracts rather than one-time buys, there would be a potential for lower contract prices through GPO. Term contracts provide for the purchase of specific products or classes of products from vendors during a specified period of time. Our analysis included a post-stratification of the 1994 DPS sample products to find out the extent to which DPS' use of term contracts resulted in savings to DPS customers. We found that GPO contractor prices were significantly—about 37 percent—lower than DPS printing prices. However, we did not find significant differences between GPO's duplicating term contracts and DPS' prices.

GPO provided price estimate information based on term contracts used by DOD or other federal agencies. This information indicated that, in most cases, these term contract prices would be lower than DPS' prices. However, whether suitable term contracts could be established to handle the DPS workload and satisfy specific customer needs (e.g., quick turnaround) at the projected prices is uncertain.

Lastly, because our study was based on a fiscal year 1994 sample, it represents the situation for that period. Relative price differences will change as prices are adjusted by GPO, GPO contractors, or DPS. The magnitude and direction of the changes are difficult to predict because of uncertainty in the marketplace. Recent information shows that GPO and DPS will both experience price increases during fiscal year 1995.

DPS and GPO Prices Under Existing Conditions

Our analysis showed that, under conditions existing during our sample period, GPO's prices for printing work were about 10 percent lower than those of DPS'. For printing requisitions more than \$500, GPO's prices were about 21 percent lower than DPS' prices. For requisitions \$500 and less, DPS' prices were about 31 percent lower than GPO's. We estimate that, in aggregate, GPO's prices for DPS' fiscal year 1994 printing workload would have been about \$2.5 million lower than those of DPS'.

DPS' prices for duplicating requisitions were about 4 to 5 percent lower than GPO's prices. For those requisitions priced over \$500, there was about 0.7 percent difference favoring GPO, and for those \$500 or less the difference was about 57 percent in favor of DPS. We estimate that, in aggregate, DPS' prices for its fiscal year 1994 duplicating workload would have been about \$8.7 million lower than the GPO's prices.

Printing

Our analysis of printing prices was based on a sample of 303 requisitions representing 327 products that we categorized as printing. The sample comprises large (more than \$500) and small (equal to or less than \$500) dollar requisitions. About 96 percent of the work was done through private vendors on contract to GPO; the remainder was produced in one or more of GPO's facilities. Although we could not conclusively determine the major factors for the price difference for printing, our results show that large dollar requisitions were about 21 percent lower at GPO, representing about 78 percent of the printing dollars. However, the price difference for small dollar requisitions showed that DPS' prices were about 31 percent lower. About 82 percent of DPS' fiscal year 1993 workload for printing was for small dollar requisitions, but this category contained about 22 percent of the total printing dollars.

Duplicating

Our analysis of duplicating prices was based on a sample of 685 requisitions representing 1,193 products that we categorized as duplicating. Like printing, the sample comprises large and small dollar requisitions, many of which required quick turnaround times. Our analysis of DPS' fiscal year 1993 workload for duplicating showed that small dollar requisitions accounted for about 92 percent of the requisitions, but 9 percent of the duplicating dollars. Large dollar requisitions accounted for 8 percent of the requisitions, but 91 percent of the duplicating dollars.

For low dollar requisitions, DPS' prices were about 57 percent lower than GPO's prices. For high dollar requisitions, GPO's prices were about 0.7 percent lower than the DPS' prices.

GPO Believes That Using Term Contracts Would Result in Lower GPO Prices

During the course of our review, GPO officials stated that they believed that making maximum use of term contracts could provide DPS with significantly lower prices for its printing and duplicating work. GPO officials told us that about 75 percent of its work for government agencies is performed under term contracts. According to GPO officials, vendors may not have charged the favorable rates available on term contracts for the one-time buys that were part of our study. Although not part of our price comparison methodology, GPO asked that we include in this report a discussion of how the use of long-term contracts might affect contractors' prices.

During our test period, about 46 percent of the printing products and 41 percent of the duplicating products produced by GPO contractors were

completed under term contracts. The remaining products were completed using one-time buys. Because GPO believes that term contracts with its vendors result in substantial savings to the government, we reanalyzed our data to try to detect these savings. For printing, our data supported the conclusion that savings could accrue. We found a significant difference—about 37 percent—between GPO’s contractor prices under printing term contracts and DPS’ printing prices. However, we did not find significant differences when duplicating term contracts were used.

Under another approach, which is the most optimistic scenario, GPO repriced our sample requisitions using prices from its term contracts in existence across the country—even though they may have been for agencies other than DOD. We examined GPO’s repricing effort to determine the relative level of GPO’s prices versus those of DPS’. We found that GPO’s prices were lower than DPS’ prices for 940 of 1,157 sample items that GPO repriced and were in our analysis. Moreover, GPO’s prices resulting from the repricing effort were often lower than actual GPO’s prices for sample items procured under GPO term contracts during our study. This occurred in 495 of 630 cases where a term contract was used.

We selectively verified orders repriced by GPO and found a number of errors. Although these errors would not appear to materially alter the supposition of lower prices, the errors do raise questions about the relative magnitude of the prices. Some of the deficiencies we identified included

- minor errors in pricing various printing or duplicating processes,
- omission of applicable GPO surcharges, and
- misapplication of selected contracts for repricing estimates.

Lastly, whether suitable term contracts could be established to handle DPS’ workload and satisfy specific customer needs (e.g., quick turnaround) at competitive prices is uncertain. GPO was unable to reprice 48 of the sample requisitions because there were no existing term contracts in effect that were appropriate for pricing purposes. In previous price comparison studies and in DPS’ comments on our current analysis, the use of GPO’s prices based on existing term contracts with other agencies was questioned.

Recent DPS and GPO Vendor Price Increases

Our analysis was based on DPS' and GPO's prices for work during the latter half of fiscal year 1994 and, therefore, represents a point-in-time comparison. Recent price increases taking effect during fiscal year 1995 could change the relative price difference between GPO- and DPS-provided work. The magnitude and direction of the difference is difficult to predict, however, because of uncertainty in the marketplace.

In October 1994, DPS increased its overall prices by 18.5 percent and its surcharge for processing work to GPO from 1.83 percent to 5.5 percent. According to DPS officials, the increases were intended, in large part, to offset prior years' printing-related operation losses. DPS is part of the Defense Business Operations Fund—a revolving fund that is used to fund operations for DPS and many other DOD activities.

In an August 1994 correspondence to the Joint Committee on Printing, GPO forecasted that GPO prices obtainable through private contractors would most likely increase by about 3.8 percent during fiscal year 1995. However, in October 1994, GPO officials advised agencies that private sector price increases may be greater. This was because of substantial paper cost increases. GPO officials stated that prices in new term contracts involving significant amounts of paper could experience 20 to 40 percent price increases. Paper cost increases may also affect DPS' prices, because DPS can adjust the price it charges its customers during the fiscal year to reflect paper price increases.

Agency Comments and Our Evaluation

In its official comments on a draft of this report, DOD agreed with our audit methodology, execution, and conclusions. The comments are included as appendix III.

GPO, in its official comments, did not agree with many aspects of our report and the methodology we used to perform our work. The comments are reprinted in their entirety as appendix IV. GPO commented that our draft report contained material deficiencies that provided an undue bias in favor of DPS and that understated the cost-effectiveness of the GPO Printing Procurement Program and its private sector printers. GPO cited a number of methodological concerns (such as our reliance on what GPO characterizes as an incomplete and questionable DPS database) that it believed raise questions about the reliability of our work. Further, GPO stated that we did not always exercise due professional care during the planning and performance of the study. To illustrate this point, GPO stated that we (1) allowed DPS to select the sample for the study, (2) accepted

sample jobs outside the criteria established for selecting the sample, (3) allowed DPS to control the timing and means for delivering sample jobs to GPO, and (4) allowed DPS to provide the source documentation for the comparative price analysis.

We disagree with GPO's primary concerns. We believe that our draft report does not contain material deficiencies and that we exercised all due care in the conduct of our work. Because of the sensitivity and continuing controversy surrounding various printing and duplicating management issues, we exercised extreme care in the planning and conduct of our work in order to provide results that are indicative of real world conditions. With regard to GPO's specific concerns, we disagree for the reasons as detailed in the succeeding paragraphs.

We did not, as GPO stated, use data from a questionable database without first testing the reliability of the data we needed for our study. For example, in using the fiscal year 1993 DPS management information database as a baseline for our work, we selected 440 printing and 300 duplicating automated requisition entries and subsequently compared the associated automated data with data found on the corresponding hard-copy requisitions. In over 90 percent of the cases, the data were appropriate and we judged them to be reliable for the purposes of our study.

We disagree that DPS selected the sample for our study and that we accepted many jobs that, GPO states, were not "twins" based on our job specification criteria. If DPS were permitted to select jobs without proper controls, it would have created an opportunity for unwanted bias. To avoid this, we had DPS plant officials nominate candidate jobs for our sample, using preestablished criteria that we provided to them. The criteria provided to DPS were never intended to restrict DPS to obtaining exact matches, or twins as GPO states. Certain specifications (e.g., major production processes used, estimated price, classification level, and time available to produce the job) were key to DPS' sample nomination process. Other criteria (e.g., technical job characteristics such as stitching) were provided as guidelines for DPS to use in attempting to nominate products that were similar, but not necessarily a direct match. We subsequently had DPS' nominations reviewed by two panels to ensure that the nominations (1) fit within the statistical model for our work and (2) did not have any technical printing requirements or other considerations that would unduly bias either agency. One panel consisted of internal printing and methodology specialists, while the other comprised external printing

consultants. As a result of these reviews, we rejected about 9 percent of DPS' sample candidates. For rejected cases, we asked DPS to submit additional candidates, which were subjected to the same review process.

With regard to GPO's statement that DPS controlled the timing and means of delivering sample jobs to GPO, we believe we exercised proper oversight of the process. We instructed DPS to use its normal business procedures to obtain its work through GPO so that our comparison was realistic. To ensure that DPS did not unduly delay the delivery of jobs to GPO, we examined, through the panel process, the timing (DPS receipt of a customer request and subsequent submission to GPO) for each job in our sample. We also conducted a separate subsample analysis to further examine the issue. Our analysis showed no systemic bias in the process. As to the means of delivering jobs to GPO, we have no indication that DPS intentionally biased the process, given the requirement to meet the customers' request dates.

GPO stated that DPS provided the source documentation to us for the comparative analysis. However, while DPS did provide much of the data related to the customer requisitions, DPS price estimates, and GPO billings, we also obtained source documentation from GPO. We examined and verified the source documentation where reasonable and where we determined the risk of bias was high. For example, we had external printing consultants review DPS' price estimates. To verify the GPO invoice prices provided by DPS, we extracted GPO bills from database files provided by GPO. We also performed a quality assurance analysis to examine cases where it appeared that discrepancies in our data may exist. Where errors were detected, we made the appropriate corrections in our database.

GPO also questioned our presentation of information in the report. For example, GPO believes that our interchangeable use of such terms as "requisitions," "jobs," and "orders" in our draft report created confusion. Further, GPO stated that our draft methodology did not sufficiently disclose what we actually did during the review. Because of GPO's apparent misunderstanding of our methodology, we have included a more technical description of our methodology and clarified our report presentation.

GPO also questioned whether it was appropriate for us to have GPO comment on our report prior to the completion of all audit work. While we agree that this situation was not ideal, we did not release the draft report for comment until we had sufficient data to project the results of our

work. The small amount of additional data collected after we released our draft report for comment did not materially affect the results of our study.

As to specific concerns noted in GPO's official comments, we have annotated the comments and have provided our views following the reprint of GPO's comments in appendix IV.

We are sending copies of this report to the Secretary of Defense, the Public Printer of the United States, the Director of DPS, the Director of the Office of Management and Budget, and other appropriate congressional committees. We will also make copies available to others upon request.

The report was prepared under the direction of Donna M. Heivilin, Director, Defense Management and NASA Issues, who can be reached on (202) 512-8412 if you or your staff have any questions. Other major contributors are listed in appendix V.



Henry L. Hinton, Jr.
Assistant Comptroller General

List of Congressional Committees

The Honorable Strom Thurmond
Chairman

The Honorable Sam Nunn
Ranking Minority Member
Committee on Armed Services
United States Senate

The Honorable Ted Stevens
Chairman

The Honorable Daniel K. Inouye
Ranking Minority Member
Subcommittee on Defense
Committee on Appropriations
United States Senate

The Honorable Floyd Spence
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The Honorable Ronald V. Dellums
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Committee on National Security
House of Representatives

The Honorable C. W. Bill Young
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The Honorable John P. Murtha
Ranking Minority Member
Subcommittee on National Security
Committee on Appropriations
House of Representatives

The Honorable Ron Packard
Chairman

The Honorable Vic Fazio
Ranking Minority Member
Subcommittee on Legislative
Committee on Appropriations
House of Representatives

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Abbreviations

DCI	data collection instrument
DOD	Department of Defense
DPS	Defense Printing Service
GPO	Government Printing Office
NCA	National Capital Area
PRMIS	Printing Resources Management Information System

Extract From Our April 15, 1994, Report on Government Printing

GAO

**United States
General Accounting Office
Washington, D.C. 20548**

**National Security and
International Affairs Division**

B-256615

April 15, 1994

**The Honorable Sam Nunn
Chairman, Committee on Armed Services
United States Senate**

**The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate**

**The Honorable Ronald V. Dellums
Chairman, Committee on Armed Services
House of Representatives**

**The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives**

**The Honorable Vic Fazio
Chairman, Subcommittee on Legislative
Committee on Appropriations
House of Representatives**

As set forth by the House report accompanying the fiscal year 1994 Department of Defense (DOD) Appropriations Act and as requested by the Chairmen of the Subcommittee on Defense and the Subcommittee on Legislative, we are reporting on several issues related to government printing operations. Our objectives were to (1) consider management issues that result from current technological advances in the publishing environment and comment on the relevancy of existing laws and regulations;¹ (2) compare the respective costs, prices, services, and operations of the Government Printing Office (GPO) and the Defense Printing Service (DPS); and (3) determine whether DPS is complying with laws and following regulations and congressional guidance on government printing operations.

With respect to the second objective, we were unable to make a meaningful cost comparison because GPO and DPS capture costs differently

¹In this report, we use the term "publishing" as the production and dissemination of information. Examples of publishing processes are printing, duplicating, and various electronic methods in which images are produced on various media.

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and there are questions regarding the completeness, accuracy, and reliability of information produced by DPS's accounting system. We are, however, providing comparative information on the services and operations of the two organizations. The question of whether it is cheaper to procure work through GPO or produce it at DPS has been debated for some time. We are in the process of comparing the prices DPS charges its customers for printing and duplicating work with the prices GPO charges for similar work. Our ongoing statistically valid price comparison will be presented in a separate report later this year. In appendix I, we provide a discussion of the methodology we are using for that analysis.

Background

By law, GPO, a legislative branch agency, is mandated to provide printing for the federal government—either by contracting with commercial sources or by producing work in-house. In addition, GPO's Superintendent of Documents is responsible for providing for the dissemination of government information to the public.

Executive agencies, including DOD, are required to forward all printing, with some exceptions, to GPO. The Joint Committee on Printing (JCP) has responsibility for exercising congressional oversight over printing activities within the federal government. Under JCP authorization, many executive agencies operate in-house printing plants for specified printing needs. DOD printing facilities are managed by DPS, which was established in April 1992 as DOD's single manager for publishing operations.

In recent years, controversy has arisen over the printing operations of various executive agencies because some agencies want to publish their work independent of GPO involvement. This controversy is largely the result of significant advances in publishing technologies. The debate intensified with the issuance of the National Performance Review in September 1993.² The Review calls for a number of major management reform initiatives aimed at allowing the government to work better and at less cost. One recommendation calls for a major change to allow agencies greater flexibility in determining how to best satisfy their printing requirements. Congress is currently considering the merits of this and other proposals during its deliberation process. We have issued a number of products related to GPO and DOD printing management and operation issues. Those products are listed at the end of this report.

²From Red Tape to Results: Creating a Government That Works Better and Costs Less, report of the National Performance Review, September 7, 1993.

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Results in Brief

With the emergence of various electronic technologies, the traditional definitions of printing and duplicating have become blurred. As a result, for all practical purposes, the framework of laws and regulations used to manage many aspects of government publishing has become outdated. Because outdated definitions drive federal publishing decisions—rather than sound business practices that emphasize cost-effectiveness and customer service—agencies are confused about how best to manage their publishing activities. Moreover, the federal government's two largest printing activities are operating with excess capacity. Without a more cost-effective approach to government publishing, this situation is likely to continue. The additional technological changes that are expected will only exacerbate this situation.

As changes are considered, it is important to understand how the basic legal and regulatory framework is reflected in the government's current publishing operations. The two largest entities are GPO, which reported revenues in fiscal year 1993 of \$817 million, and DPS, which reported revenues during that period of \$403 million. Both of these activities are challenged with managing current operations under existing laws, regulations, and guidance, while planning future operations that respond to the rapid technological change. Both are experiencing operating losses that reflect diminishing workloads and excess capacity. Further, charting specific future operational plans is largely dependent on the outcome of proposals to revise existing legislation.

Certain DPS practices are inconsistent with the requirements of applicable laws, JCP regulations, and related congressional guidance. For example, DPS has (1) procured directly a relatively small amount of printing work that should have gone to GPO, (2) filled a small amount of printing orders for non-DOD-related agencies, and (3) acquired duplicating equipment without certification from the JCP or the Public Printer of the United States.

Current Legal and Regulatory Framework Used to Manage Government Publishing Is Outdated

The current framework of laws and regulations for managing government publishing dates back to 1895. At that time, the Printing Act established the basis for the current Title 44 of the United States Code, which governs most printing in the federal government. As authorized by Title 44, Congress' JCP established rules and regulations for printing that relate to various aspects of printing, including equipment that may be purchased, processes that must be used, and the number of colors that may be printed.

Appendix I
Extract From Our April 15, 1994, Report on
Government Printing

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Section 501 of Title 44 and a related restriction on the use of appropriated funds—section 207 of the Legislative Branch Appropriations Act of 1993—essentially require that all government printing be done by or through GPO. Section 501 requires that all “printing, binding, and blank-book work” be done at GPO. Section 207 prohibits agencies from using appropriated funds for “the procurement of any printing related to the production of government publications.” Both provisions include limited exceptions.³

The provisions refer only to “printing.”⁴ Neither provision specifically includes, for example, duplicating—a process defined in JCP regulations as distinct from printing. As new high-speed duplicating equipment becomes available, the duplicating process has been used increasingly to publish government documents. Because the law focuses only on printing, its usefulness has been limited for decisionmakers who must manage in an environment of emerging technologies. The projected proliferation of technologies will only magnify the uncertainty among government decisionmakers in managing their operations.

Within the printing industry, there is acknowledgment that the terms printing and duplicating, as well as copying and reprography, are often used synonymously. Moreover, printing has been used as a general term encompassing a variety of other technologies used to produce publications, documents, and other outputs. Printers and publishers who have kept pace with changing technology realize that they are part of a vast information industry. Many are looking at other technologies, such as telecommunications, videotext, CD-ROM, interactive cable television, and direct broadcast by satellite as complements or supplements to printing. Experts in the publishing field have suggested that a more useful framework for managing these publishing technologies would be based on factors such as cost, quality, and timeliness. In addition, GPO officials were adamant that the framework ensure continued dissemination of government information because the government has a responsibility to keep the nation informed.

³For example, 44 U.S.C. 501 (2) provides an exception for “printing in field printing plants operated by an executive department . . . if approved by the Joint Committee on Printing.”

⁴By law, the term “printing” means the process of composition, platemaking, press work, silk screen processes, binding, microform, and the end items of such processes.

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**An Effective Framework
Would Be Based on Cost,
Quality, and Timeliness
Considerations**

The cost of producing products is only one element involved in determining the lowest possible cost. In other words, the production cost should be considered in the context of the total life-cycle cost of the product. This life-cycle cost includes authoring, design, copy preparation, reproduction method, binding, distribution, storage, reprint, and any disposal costs. The distribution part of the life-cycle cost should consider the dissemination of government information.

Quality factors should be based on the quality required by the customer, and not the quality required by the producer of the product. Quality can be defined in many ways, but the user often defines it as how well the version produced by a process replicates the original.

Timeliness is, and should be, determined by the user. It may be necessary to forego the most economical way of producing a product to obtain the product on a timely basis. Again, the user should make this determination. Production people can advise the user as to the trade-offs. However, they should not make the decision for the user.

Appendix II contains more details on the evolution of publishing technologies and the legal and regulatory framework that governs their management.

GPO and DPS Operations

GPO and DPS are deciding how to deal with technological change and, at the same time, meet the legal and regulatory requirements. The following provides a brief summary of comparative information on the agencies' current operations and plans for the future.

GPO is facing a diminishing workload for several reasons—including a loss of business from federal agencies, which publish an increasing amount of their own work. According to GPO billing reports, executive branch publishing provided by GPO dropped from about \$944 million (in 1993 dollars) in 1989 to about \$650 million in 1993 (about a 31-percent decrease). DPS is also facing a diminishing workload because of military downsizing, budget reductions, and movement to electronic publishing processes. Whereas DPS expected revenues of about \$500 million in fiscal year 1993, it reported receiving about \$403 million. Since consolidation in 1992, DPS has eliminated 1,049 positions, closed 70 facilities, acquired new equipment, and disposed of about 1,500 pieces of equipment.

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In fiscal year 1993, GPO had a reported loss of \$14 million on revenue of \$817 million as compared with a \$5-million loss on revenue of \$924 million in 1992. GPO officials explained that the increase in the loss is attributed to increases in expenses, a freeze on prices since January 1990, and a continuing decline in printing and binding work. DPS reported a loss of \$24 million on revenues of \$403 million in 1993. Because fiscal year 1993 was DPS' first full year of operation, there are no data with which this loss can be compared. DPS officials stated that the loss to DOD would have been much greater had the consolidation not taken place.

We audited the 1992 GPO financial statements and issued an unqualified opinion on the statements and internal controls. We found no incidents of noncompliance with laws and regulations. The 1993 GPO financial statements, however, were not audited. DPS has not had a financial audit in the past, except for audits by the Naval Audit Service that were of limited scope and did not address the reliability of DPS's cost accounting system.

In late 1991, GPO developed a strategic plan for fulfilling its mission in the changing technological environment. The plan lays out staffing levels and a product and equipment mix for the year 2001. According to the Public Printer, the federal government needs a policy on publishing and information dissemination that is acceptable for all branches of government so that GPO can better plan for the future. He said that effective short- and long-term planning is difficult because of the number of legislative proposals being considered that have serious implications for the operation of GPO and government printing in general. He further stated that "ink on paper" printing would remain for the foreseeable future but projected that the volume of paper products would decrease as electronic technologies became more accessible. Finally, he stated that GPO had to begin operating more like a business if it wanted to compete for business in the future.

DPS recently completed an analysis of its core capacity to determine the minimum level of personnel, equipment, and facilities necessary to meet DPS's future mission requirements. According to DPS officials, the analysis called for (1) a reduction of in-house production and an increase in commercial procurement, (2) a reduction of another 1,000 personnel to reach a level of about 1,700 positions, (3) the elimination of another 72 facilities to bring the total number to 222 printing locations, and (4) the acquisition of modernized equipment.

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Appendix III contains more detailed information on GPO and DPS operations.

Certain DPS Practices Are Not Consistent With Printing Laws, Regulations, and Congressional Guidance

With respect to the law, certain DPS practices are inconsistent with the requirements of section 207, Public Law 102-392. The law prohibits the procurement of printing through sources other than GPO except in limited circumstances.⁵ We found a relatively small amount of work—\$328,000—that DPS had procured directly from commercial contractors rather than through GPO. Most of this work—\$248,000—was for commercial printing in Hawaii. DPS officials stated that they were unaware that GPO had private contractors in Hawaii who could do the work. After learning about this, DPS officials stated that they would look into the situation. DPS officials acknowledged that this was a violation of the law but pointed out that \$328,000 represented a reduction from previous years and was a small portion of their total revenue.

DPS also produces some printing work for non-DOD agencies, who, by law, must generally procure this work through GPO. Due to limitations in DPS's cost accounting system, we were unable to precisely identify how much of this work was printing as opposed to other work, such as duplicating, that is not subject to the provisions of the law. Using available DPS data, we estimate that the aggregated amount of the printing and duplicating work was about \$2.6 million in fiscal year 1993, or about 1.3 percent of DPS's in-house work. DPS headquarters has notified all regional offices to not accept any new work from non-DOD agencies. DPS continues to do work for existing customers because of long-standing relationships established prior to the DPS consolidation. To the extent that this practice involves printing, it is in violation of the law.

DPS has also not consistently followed certain provisions of the JCP's Government Printing and Binding Regulations. For example, DPS is not accurately reporting in-house work that exceeds JCP-established production thresholds (i.e., the number of pages) for specified equipment. At one location we visited, 63 jobs exceeded these thresholds, but only 2 were reported. JCP's oversight is limited because of this inaccurate reporting.

⁵Exceptions are made for (1) individual printing orders costing not more than \$1,000, if the work is not of a continuing or repetitive nature, and, as certified by the Public Printer, cannot be provided more economically through GPO; (2) printing for intelligence agencies; and (3) printing from other sources that are specifically authorized by law.

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DPS also purchased 9 high-speed, electronic publishing devices at a cost of \$2.6 million and, under a lease-to-purchase agreement, leased another 50 at a cost of about \$10,000 each per month. Maintenance is included in the monthly fee. These acquisitions were not certified by the JCP or the Public Printer of the United States in accordance with guidance set forth by the House report accompanying the 1993 Defense Appropriations Act. DPS officials stated that these machines are not used for printing as defined by the JCP regulations and, therefore, there is no need to obtain a certification. DPS officials told us that it is their practice to notify the JCP when they acquire equipment. However, we were only able to document that DPS had notified JCP about 2 of the 59 acquisitions.

We also noted disagreements between JCP and DPS concerning procurement of printing from the Federal Prison Industries. In fiscal year 1993, DPS procured almost \$600,000 in work from the Federal Prison Industries. DPS officials stated that the procurements were proper because specific statutory authority exists to procure services from the Federal Prison Industries. Under 18 U.S.C. 4124, agencies are not just authorized, but required, to purchase products from Federal Prison Industries to the extent they are available and meet the agencies' needs. However, citing the requirements of section 207 of the Legislative Branch Appropriations Act, 1993, the JCP instructed agencies not to procure printing and related services from Federal Prison Industries.

Appendix IV contains additional detail on the laws, regulations, and congressional guidance and our analysis of DPS's practices.

Recommendations

We recommend that the Secretary of Defense require the Director of DPS to establish controls to (1) prevent the unauthorized procurement of commercial printing and the production of printing for non-DOD organizations and (2) verify the accuracy of JCP-required reports for work exceeding the production limits for specified equipment.

Matters for Congressional Consideration

Technological changes in the way information can be transmitted, stored, and reproduced are having a significant impact on the publishing industry, and the government is no exception. The framework of laws and regulations used to manage the government's publishing activities has been in place for many years, and now seems the appropriate time for a reassessment. Various legislative proposals have been introduced during the past year to change the existing legislative framework.

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As Congress continues to review the various legislative proposals, it may wish to consider alternative frameworks built on sound business practices and changing publishing technologies. Such a framework should rely heavily on providing for the lowest possible cost for publishing jobs, while at the same time considering quality and timeliness. Also, meeting the needs of the nation for access to government information should be an important consideration.

Agency Comments

We did not obtain written comments from GPO and DPS. However, the Public Printer of the United States and the Director of DPS and their staffs reviewed a draft of this report, and we have incorporated their comments where appropriate.

The Public Printer of the United States indicated that our draft report fairly portrayed GPO. However, he stated that there were areas where more complete information needed to be provided, particularly as it related to GPO's public information dissemination responsibilities. He also stated that GPO had limited time to review the draft and more time would be needed to provide a comprehensive response.

The Director of DPS stated that time constraints did not permit a detailed review of all issues raised in our draft report. Consequently, he was unable to offer specific comments pending a review of the final report. The Director stated that, from a broad perspective, the draft report raised several major issues regarding compliance with the myriad of often-conflicting legal, regulatory, and policy guidelines that govern federal printing. He further stated that DPS had taken strong management action since the April 1992 consolidation to reduce costs, eliminate excess capacity, and increase out-sourcing while essentially maintaining compliance with applicable laws, regulations, and policy. According to the Director, with the exception of \$328,000 (\$80,000 CONUS and \$248,000 in Hawaii) in direct commercial printing procurement, DPS is in full compliance. He said that 98 percent of all commercial procurement was through GPO. He stated that DPS would work closely with GPO to correct this and any other deficiency in DPS operations with the goal of achieving the best value.

Scope and Methodology

To address the issues contained in this report, we formed a multidisciplinary team that included staff knowledgeable about defense and general government management auditing, accounting, financial

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management, economics, publishing, information management, statistics, and legal matters.

We consulted with experts from the private sector, as well. Using a modified delphi technique, we consulted with experts and industry officials in the publishing field to obtain their views on the (1) distinctions among various publishing technologies, (2) future direction of the publishing industry, and (3) resulting implications for managing publishing operations in the future. In addition, we consulted with an expert in printing economics regarding cost and efficiency issues at GPO and DPS. All private sector contacts are listed in appendix V. We also discussed these issues with representatives from our own Office of Information Management and Communications.

We worked closely with officials from DPS and GPO during the course of our work and briefed the JCP on the scope of our work. At DPS and GPO, we interviewed officials responsible for policy, financial management, the management of publishing operations and reviewed associated documents containing financial and operational data. We also observed publishing operations at GPO's central plant in Washington, D.C., and at 12 DPS printing facilities in 4 of DPS's 8 regions. Finally, we analyzed relevant statutes, regulations, and congressional guidance regarding the management of government printing operations.

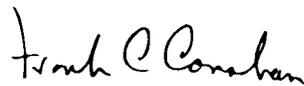
We conducted our work from August 1993 to April 1994 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Secretary of Defense, the Public Printer of the United States, the Director of the Office of Management and Budget, and other appropriate congressional committees. We will also make copies available to others upon request.

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This report was prepared under the direction of Donna M. Heivilin, who can be reached on (202) 512-8412 if you or your staff have any questions. Major contributors to this report are listed in appendix VI.



Frank C. Conahan
Assistant Comptroller General

Scope and Methodology

Debate continues as to whether DOD can save money by contracting its printing and duplicating work through GPO rather than producing it in-house. Several studies have been conducted on this topic, but they do not support generalizable findings. Accordingly, we set out to determine whether DOD customers would pay more or less to obtain printing and duplicating services through GPO and its private sector contractors rather than through DPS.

Study Approach

Our study is based on the printing and duplicating workload undertaken by DPS in response to customer requisitions received during fiscal year 1993. Because it is requisition based, the study excludes consideration of that portion of DPS' workload associated with self-service or copy center operations. Work performed in overseas plants is also excluded because GPO does not typically service those locations. DPS' fiscal year 1993 workload is used to specify a statistically matched set of fiscal year 1994 requisitions. The difference between DPS' and GPO's fiscal year 1994 prices for this matched set serves as the basis for the study's price comparisons.

Our work was conducted between September 1993 and January 1995 in accordance with generally accepted auditing standards.

Terminology Differences

In recent years, the proliferation of computers, laser printers, and other digital technologies has blurred the distinctions between printing and duplicating. Today the terms are often used synonymously, but their precise definition has been the subject of disagreement within the printing community. DPS, for example, may classify a piece of work as duplicating, while GPO might classify the identical product as printing. Similarly, DPS and GPO frequently disagree about the production processes required to produce products at different quality levels.

Our study is based on DPS' workload, and we used DPS' production classifications. Accordingly, the projected price differences for printing or duplicating are expressed in terms of DPS' classifications. Our price comparisons, however, are product-based. Thus, while DPS and GPO may disagree as to whether a particular work process should be classified as printing or duplicating, this study reports solely the price differences charged for products that the customer would perceive as identical.

Geographic Considerations

During our sample period, DPS comprised a headquarters and field activities located within eight areas. DPS prices in-house work at the time a requisition for printing or duplicating is accepted using a standard rate schedule. DPS uses this schedule to price each of the processes used to produce a job. With the exception of paper prices, the rate schedule is identical for all areas and is updated on an annual basis. Paper prices are set at the plant level and may vary throughout the year.

GPO also has a headquarters and regional structure. For executive agency printing and duplicating work, GPO usually contracts the work with local or regional commercial vendors. Consequently, GPO's prices are affected by market conditions. The price for identical work may vary between regions and, seasonally, within the same region. The final invoice (including GPO's contract administration surcharge) is provided after completion of the work and receipt of the contractor's billing.

GPO's regional boundaries do not coincide with the geographic boundaries of the DPS areas. Thus, there is not a one-to-one relationship between a DPS area office and a GPO regional office. A DPS area office may contract support from multiple GPO regions, and a single GPO region may support multiple DPS area offices.

Defining DPS' Fiscal Year 1993 Workload

Members of the printing community often assert that every printing and duplicating product is unique. Although the products may be unique, it is clear that there is a finite, countable sequence of production steps involved in their manufacture. The identification of these sequences is the core of our statistical design.

DPS' Printing Resources Management Information System (PRMIS) tracks requisitions and prices for 184 separate work processes that may be involved in providing customers with requested products. We realigned DPS' fiscal year 1993 PRMIS data to reflect DPS' job pricing system—one that is designed to capture the prices charged for the various manufacturing processes used to produce a product. By tracking requisitions through the various processes, we were able to categorize DPS' overall fiscal year 1993 in-house workload into nine major production processes. Table II.1 lists these processes and the revenue associated with them in fiscal year 1993. Each of these major processes was further stratified to reflect additional production processes (e.g., stitching) and price strata. In total, our study comprised 37 printing and 32 duplicating strata.

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Table II.1: DPS' Major Production Processes (Fiscal Year 1993)

Dollars in millions			
	Major production process	Requisitions	Price
Printing			
1	10x15/11x17 press	38,503	\$5.0
2	Offset press 14x19 width	17,095	9.6
3	Offset press 22x29/22x34	3,675	5.8
4	Offset press 35x45	896	2.0
5	Two-color press 35x45	911	1.8
6	Roll-fed 22x34	116	0.5
7	Thermo/envelope/letterpress	999	0.2
Duplicating			
8	Electrostatic duplicating	276,812	188.0
9	Offset duplicating 10x15/11x17	35,724	7.6
Total		374,731	\$220.5

Note: Overseas plant figures are excluded.

Validation of DPS' PRMIS Database

We relied extensively on computer-processed data contained in the DPS' PRMIS database. We assessed the reliability of the data by comparing them with data from fiscal year 1993 hard-copy requisitions. This comparison was conducted using a statistically valid sample. Table II.2 lists the sample sizes by major production process.

Table II.2: Sample Used to Validate PRMIS

Dollars in millions			
	Major production process	Requisitions	Sample size
Printing			
1	10x15/11x17 press	38,503	123
2	Offset press 14x19 width	17,095	93
3	Offset press 22x29/22x34	3,675	69
4	Offset press 35x45	896	45
5	Two-color press 35x45	911	35
6	Roll-fed 22x34	116	25
7	Thermo/envelope/letterpress	999	25
Subtotal			415
Duplicating (National Capital and Western areas)			
8	Electrostatic duplicating		
	National Capital Area	13,679	38
	Western Area	94,056	112
9	Offset duplicating 10x15/11x17		
	National Capital Area	536	38
	Western Area	7,426	112
Subtotal			300
Total		177,892	715

Note: Overseas plant work is excluded.

With regard to printing, all fiscal year 1993 requisitions were grouped according to DPS' seven major printing production processes and stratified into 37 cells to reflect the influence of production line characteristics (major combinations of press requirements, offset plates, etc.) and requisition price (greater than \$500 or \$500 and less). Statistics for each cell were derived, and a hard copy of the original customer request was obtained for a dollar-weighted sample of requisitions.

With regard to duplicating, PRMIS provided a count of requisitions and prices for electrostatic and offset duplicating work in all DPS areas. However, only the National Capital and Western areas retained the individual hard-copy requisitions needed to support our validation. Thus, our validation of the PRMIS' duplicating workload focused on DPS' National Capital and Western areas. Within these areas, duplicating requisitions were grouped according to DPS' two major production processes and stratified by requisition price (greater than \$500 or \$500 and less). Statistics for each cell were derived, and a hard copy of the original

customer request was obtained for a dollar-weighted sample of requisitions.

We concluded that the data were sufficiently complete and accurate and thus could serve as a reliable description of DPS' fiscal year 1993 workload. Hard-copy requisitions for 385 of the 415 sampled PRMIS printing records were obtained and found to validate the PRMIS' data on price, production sequence, and requisition number. We obtained hard-copy requisitions for 273 of the 300 sampled duplicating records and validated the PRMIS' data on price, production sequence, and requisition number.

Structuring the Fiscal Year 1994 Price Comparisons

Our analysis assumes that DPS' fiscal year 1993 workload is characteristic of DOD's annual demand for printing and duplicating services. This is not to say that DPS will complete the same volume of work each year, but rather that its mix of work will remain relatively constant.

We took a statistically representative sample of DPS' mix of work from the fiscal year 1994 incoming work requests. DPS priced the requisitions according to its rate schedule and then sent them to GPO for production. GPO provided an initial price estimate upon acceptance of the work and a final invoice price (the contractor's price plus a surcharge for GPO's administration of the contract) following completion of the work.

Protection Against Selection Bias

To match fiscal year 1994 jobs with the fiscal year 1993 work mix, we sought to ensure requisite statistical conditions (necessary for the preservation of fiscal year 1993 strata properties) and reduce or eliminate any perception of selection bias on the part of DPS or GPO.

The criteria for a matched requisition were specified by the statistical cell from which a fiscal year 1993 requisition was drawn. Attributes obtained from the fiscal year 1993 requisition (e.g., number of copies, original impressions, available workdays to perform the work, paper weight and finished size, type of binding, and distribution) served as subordinate guidelines to protect against selection bias. We listed these attributes on the data collection instrument (DCI) that DPS plant officials used to nominate a requisition for inclusion in our study. An example of the DCI used for a printing requisition is shown in figure II.1.

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Figure II.1: Sample Form Listing Attributes of a Printing Requisition

DPS's FY1994 Printing Request

Instructions: Record the FY94 Job Number and dates below and describe the major characteristics of the matched product by filling in the blanks and checking the boxes in the FY94 Selection column. After completion, return this form together with the matched customer request and pricing schedule to GAO.

GAO Sample ID: NCA02-33-448

DPS Area and Printing Plant: NCA-2

Required Printing Processes:

- (33) - 14-19 Width Offset Press
- (20) - Negatives
- (21) - Offset Plates
- (39) - Paper
- (45) - Wrap/Pack/Ship

FY94 Job Number: _____

Date Request Received: _____

Requested Delivery Date: _____

Product Specifications	FY93 Sample	FY94 Selection
Security Classification:	Unclassified	
Nbr of Workdays to Perform:	16 to 20	
DPS Price:	\$ 117 to \$ 138	
Nbr of Original Impressions:	1 page(s)	
Finished Size:	8.5x11	
Ink-- Black or Not Black:	Black	
Nbr of additional colors:	1	
Number of Copies in FY94 Job	----->	
Leaves: One side only	No	
Face and back	Yes	
Paper: White offset book(50lb)	Yes	
White bond (20lb)	No	
Colored bond (20lb)	No	
Index stock (110lb)	No	
Vellum-finish (50lb)	No	
Other: See specifications	No	
Binding: Punch/drill	No	
Wire stitch	No	
Saddle stitch	No	
Perfect binding	No	
Fold	No	
Fold-ins	No	
Distribution: Shrink-film wrapping	No	
Customer pickup	No	
Bulk delivery	Yes	
Addressing/ mailing	No	

Additional Specifications: Yellow ink.

After DPS plant officials identified a requisition that met the parameters of our DCI, they submitted the requisition to GPO for production and then provided us with documentation to support their nomination (a completed copy of the DCI, the customer's requisition, and DPS' schedules used for pricing the product). Before including the nominations in our sample, we tasked a panel comprising our personnel with printing, evaluation, and methodological expertise to examine them. The panel ensured that the nominations fit the necessary statistical parameters and that, from the viewpoint of the printing community, the selection would not put GPO at a disadvantage. All acceptable matches were subsequently reviewed by external consultants with printing expertise. Specifically, we used two private sector consultants—Willard Brown, Printing Consultant, and Herbert Langford, Langford and Associates. They validated the panel's decisions and reviewed DPS' price estimates, thereby providing an additional safeguard against systemic bias on the part of DPS areas or plants.

About 9 percent of DPS-proposed matches failed the review process. In these cases, the work was not included in our sample and DPS plant officials were requested to nominate replacements that more accurately reflected the statistical criteria and attributes specified within our DCI.

The Fiscal Year 1994 Sampling Frame

Table II.3 presents an overview of the study's sampling frame. The table is organized by major production process and lists the sample size, responses, and the number of individual products produced using each process.

Table II.3: Sample Overview (Fiscal Year 1994)

	Major production process	Requisitions		Number of products
		Sample	Responses	
Printing				
1	10x15/11x17 press	115	96	98
2	Offset press 14x19 width	90	74	77
3	Offset press 22x29/22x34	61	44	53
4	Offset press 35x45	39	30	30
5	Two-color press 35x45	33	25	35
6	Roll-fed 22x34	24	17	17
7	Thermo/envelope/ letterpress	23	17	17
Duplicating				
8	Electrostatic duplicating	661	571	946
9	Offset duplicating 10x15/11x17	147	114	247
Total		1,193	988	1,520

Printing Sample

We asked DPS to match 385 of our validated fiscal year 1993 printing requisitions (stratified by major product line, subproduct, and requisition price) with incoming fiscal year 1994 requisitions. DPS successfully matched 316 of the 385 requisitions, but at the conclusion of our study, GPO's contractors had provided final invoices for only 303 requisitions. Thus, we used a 79-percent response rate in estimating differences between the DPS' printing price and GPO's final invoice.

Duplicating Sample

An overview of our sampling scheme for duplicating requisitions is shown in table II.4.

Table II.4: Sampled Duplicating Requisitions by DPS Area

DPS area	Electrostatic duplicating		Offset duplicating	
	Sample size	Responses	Sample size	Responses
Central Area	91	67	16	8
National Capital Area	31	25	38	35
Northeast Area	91	68	16	12
Northwest Area	91	86	16	10
Southeast Area	80	78	14	11
Southern Area	91	83	16	11
Southwest Area	91	78	16	13
Western Area	95	86	15	14
Total	661	571	147	114

Because the National Capital Area (NCA) was unique in its distribution of duplicating work, we treated it separately from the other DPS areas—both in our validation of the PRMIS' workload and in the selection of requisitions for our fiscal year 1994 sample. We asked DPS to match 69 of our validated fiscal year 1993 requisitions from NCA (31 electrostatic and 38 offset duplicating, as stratified by major production process and requisition price) with an incoming fiscal year 1994 duplicating requisition from the same plant.

To protect against selection bias in the remaining DPS areas, we used the properties of the Western Area's validated requisitions to create templates for our DCIS. This allowed us to control DPS' nominations. We sent a combined total of 739 requisitions to the seven areas (excluding NCA). From our prior work with PRMIS, we knew the statistical properties of the mix of work for each of these areas. Using the statistical properties of the mix of work from each of the areas, we calculated our estimates.

Combined Billings and Open Requisitions

In the process of validating PRMIS, we identified two classes of requisitions that deserved special treatment. The first class, combined billings, was made up of a collection of individual products that were batched for production on a single requisition. The second class, open requisitions, usually comprised multiple products or recurring tasks for the same customer that were billed to the same account. Open requisitions were, in effect, term contracts to provide continuing support to one customer over a period of time.

In our validation of PRMIS, we found 13 combined billings (2 printing and 11 duplicating requisitions). These requisitions consisted of 59 individual products, each with its own attributes. For data collection purposes, we separated each combined billing into an individual DCI for each product. The responses to these DCIS were ultimately combined to reflect the original 13 combined billing requisitions.

In our validation of PRMIS, we found 26 open requisitions (2 printing, and 24 duplicating requisitions). These requisitions were different in that, as blanket purchase agreements, their attributes were more those of a contract than an individual product. For sampling purposes, we asked DPS to match the original fiscal year 1993 requisition with a fiscal year 1994 open requisition having approximately the same dollar value and requiring similar production processes and delivery schedules—preferably a fiscal year 1994 contract supporting the same customer. As with individual requisitions, each of DPS' open requisition nominations were subject to the

review and approval of our panel. In our study, DPS successfully matched 23 of the 26 open requisitions (1 printing and 22 duplicating requisitions, collectively representing a total of 310 products).

For each requisition that was approved by the panel, we identified a start date and tasked DPS to provide for our sample a prescribed sequence of products submitted against that contract. As products were submitted against these requisitions, DPS forwarded the work to GPO for production and provided us with the customer's requisition and DPS' schedules used for pricing the product.

Though open requisitions are analogous to GPO's direct-deal term contracts, DPS does not provide a price reduction on these requisitions. GPO states that if the work were done by GPO, however, the DOD customer would receive a price discount. For this reason, we asked two agencies to price all of the open requisition products as though the work were performed under their existing GPO direct-deal term contracts. Thus, we obtained three sets of prices for each open requisition: DPS' price, GPO's final invoice price, and the agencies' direct-deal contract price. The direct-deal price was used as a surrogate for GPO's price in our basic price comparisons. GPO's final invoice was used to support a separate analysis of term contract prices. Because open requisitions are billed monthly, we integrated the prices obtained for each sample in order to reflect the monthly charge for each requisition.

Sample Nonresponse

To maximize response rates, we visited 47 of the 99 DPS plants involved in our study to review the progress DPS was making with its nominations. On a continuing basis, we made phone calls to encourage high response rates. Weekly, we informed DPS area officials of the number of successful nominations made by their subordinate plants. We investigated apparent difficulties or inadequacies in achieving our response goals. Through these efforts, we achieved an 83-percent response rate for the combined count of printing and duplicating requisitions. To ensure that the missing requisitions did not change the representativeness of our sample, we examined the potential bias that might be introduced by nonresponse. Categories of nonresponse are shown in table II.5.

Table II.5: Categories of Nonresponse

Nonresponse reason	Number of requisitions	Direction of bias
Sensitive or classified material	43	Favors GPO: Production of classified or sensitive material would likely increase the contractor price.
Downsizing	24	No apparent bias.
GPO rejected production	32	Favors GPO: Most cases were the result of our demand for a requisition with a rapid turnaround time.
Miscellaneous	76	No apparent bias: Nonresponse was related to sample size in each area.
Missing GPO final invoice	30	No apparent bias: DPS' last day for data collection was September 30, 1994. The final invoices were not received by January 15, 1995.

As may be seen, except for the special provisions needed to safeguard national security and other sensitive materials, our research did not indicate the presence of systemic bias against GPO in our sample. Thus, the study's final estimates were calculated by reweighting the sample to ignore nonresponse.

The Analysis

DPS' fiscal year 1993 mix of work was used to define a statistically matched set of fiscal year 1994 requisitions. The difference between DPS' prices and GPO's invoice prices for this set served as the basis for the study's price comparisons. Based on dollar-weighted sampling strata, requisition price differences were used to estimate the fiscal year 1994 population values.

Post-Stratification and the Analysis of Term Contracts

GPO officials stated that about 75 percent of GPO contract work for government agencies is done through term contracts rather than through one-time purchases. These officials pointed out that these contracts usually result in considerably lower prices for the agencies. Our analyses included a post-stratification of the 1994 DPS products, as distinct from requisitions, to determine the extent to which DPS' use of term contracts resulted in savings to the DPS customer. Table II.6 shows the results of these analyses.

Table II.6: Effect of Term Contract Use

Term contract type	GPO price index based on DPS price = 100	Sampling error
Printing	63	31
Duplicating	112	35

GPO's Repricing Effort

At the request of GPO officials, we allowed GPO to use any of its term contract information to reprice the DPS work—after GPO had completed and billed DPS for our test cases. GPO officials believed that, in most cases, they could have provided DPS with more favorable prices if term contracts had been in place and used to price the work. According to GPO, about 75 percent of its commercial work is done through term contracts—at prices considerably lower than the prices charged for one-time purchases.

We selectively verified the pricing of a sample of the jobs that were repriced by GPO, and we compared those findings with the results of our own independent analysis of term contract prices that was described earlier.

Quality Assurance Efforts

The structured DCIS, our internal review panel, the printing consultants, and the site visits of our staff played an important role in ensuring the credibility of the data that were finally used in our analyses. These efforts were supported by additional quality assurance efforts. Specifically, we took two samples. One was a statistical subsample of our fiscal year 1994 responses. The other was a sample of instances in which we found extreme percentage differences between the DPS and GPO duplicating prices. Our goal was to examine product quality, timing, and pricing issues to detect errors and any indication of bias.

Statistical Subsample Analysis

We took a subsample of 60 of our fiscal year 1994 responses. We compared requisition information from DPS with GPO's product information database to determine whether (1) GPO was given the DCI-specified time to perform the work and (2) the number of GPO's and DPS' product copies were the same. In all but one case, GPO's data agreed with the range specified on our DCI.

We also used the GPO product information database to determine the extent to which DPS requested quality level III work. (GPO's technical specifications range from quality level I for highest quality to quality

level V for lowest.) GPO told us that by specifying quality level III work, DPS forced GPO commercial vendors to print the work rather than duplicate it. GPO states that this would put them at a disadvantage in some cases. We found four jobs in our subsample where DPS requested quality level III work—about 7 percent of our sample. The majority of the work requested by DPS in our subsample consisted of quality levels IV and V.

**Extreme Percentage
Differences Between DPS'
and GPO's Duplicating
Prices**

We looked at 104 requisitions with extreme price differences (in percentages). We used GPO's product information database to verify requisition information and obtain both quality levels and pertinent dates to determine whether there was any bias against GPO with respect to quality levels of work requested and the amount of time given GPO to produce the work. We located 96 of the requisitions in the database and investigated each of these cases with telephone calls to the DPS plants from which they originated. Where we detected errors, we made appropriate changes.

Comments From the Department of Defense



ADMINISTRATION &
MANAGEMENT

OFFICE OF THE SECRETARY OF DEFENSE
1950 DEFENSE PENTAGON
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20 JAN 1995

Mr. Henry L. Hinton, Jr.
Assistant Comptroller General
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Hinton:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "GOVERNMENT PRINTING: Comparison of DOD and GPO Prices for Printing and Duplicating Work," dated December 20, 1994 (GAO Code 709080), OSD Case 9836.

The DoD has reviewed the draft report and concurs with the methodology, execution, and conclusions. The opportunity to review the report in draft form is appreciated.

Sincerely,

D. O. Cooke
Director

Comments From the Government Printing Office

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



United States Government Printing Office
Washington, DC 20401

OFFICE OF THE PUBLIC PRINTER

February 8, 1995

Mr. Henry L. Hinton, Jr.
Assistant Comptroller General
National Security and International Affairs Division
United States General Accounting Office
Washington, DC 20548

Dear Mr. Hinton:

This document and appendices represent the official comments of the U.S. Government Printing Office (GPO) in response to the U.S. General Accounting Office (GAO) draft report entitled Government Printing: Comparison of DOD and GPO Prices for Printing and Duplicating Work, dated December 20, 1994.

The GPO Inspector General audit staff believes that the GAO draft report contains material deficiencies, including numerous pricing errors, that misrepresent the truth about the economy and efficiency of the American printing industry. Additionally, the DPS's 18.5 percent price increase for Fiscal Year 1995, negates the validity of the conclusions drawn from this report.

I fully expect GAO to correct all errors in the price comparisons before issuance of the final report.

Our response contains detailed evidence that the GAO study was skewed and the results materially understate the cost-effectiveness of the GPO Printing Procurement Program and its private sector printers. The GAO study methodology favored DPS and restricted GPO's ability to use Direct-Deal Term Contracts which are GPO's most cost-effective and efficient means to procure printing and duplicating.

Incomplete DPS job workload data for Fiscal Year 1993, GAO's use of data from a questionable DPS management information system, and GAO's "cloning" of the entire DPS regional duplicating sample for Fiscal Year 1994 from one of seven DPS regional areas, and

See comment 1.

Appendix IV
Comments From the Government Printing
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other conditions raise serious concerns about the reliability of this study. Additionally, the GPO audit staff believes that the GAO staff did not always exercise due professional care during the planning and performance of this study. To illustrate, DPS was allowed to: (1) select the GAO sample; (2) submit sample jobs, accepted by GAO, that in most instances (89 percent) were not "twins" based on GAO's job specification criteria; (3) control the timing and means of delivering sample jobs to GPO; and (4) provide the source documentation to GAO for the comparative price analysis. Each of these concerns is discussed in our response.

I have also forwarded a copy of this document to the Comptroller General of the United States requesting that an independent quality assurance review be performed of this study. GPO has evidence that this study was not conducted in accordance with all applicable Government Auditing Standards, as alleged in the GAO draft report.

I must insist that GPO's comments be included, in their entirety, as an appendix to your final report. This is necessary to ensure that Congress and other readers of this report are fully aware of GPO's position.

Sincerely,


MICHAEL F. DiMARIO
Public Printer

Enclosures

**U.S. Government Printing Office's
Comments On GAO Draft Report**

**GOVERNMENT PRINTING:
Comparison of DOD and GPO Prices for
Printing and Duplicating Work**

Prepared by
U.S. Government Printing Office
February 8, 1995

U.S. Government Printing Office
Office of Public Printer

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Section I.

Reliability of DPS Source Data for GAO Study

A. DPS Printing and Duplicating Data for Study Was
Misclassified Based on JCP Standards

The Congress requested that the GAO study assess "the degree of compliance by DPS with Sec. 207 and other applicable laws, rules, and regulations."

The GAO should indicate in the body of this report that the DPS does not always classify "printing" in accordance with the Joint Committee on Printing's Government Printing and Binding Regulations. For this study, GAO used DPS's classification of printing and duplicating without qualification of this critical workload data in the chart on page 6 of the draft report.

In the prior DPS/GPO price comparison study by GAO (GAO/T-NSIAD-93-19, page 1), GAO testified that the definition of printing was:

" 'Printing', as defined in this analysis, includes work that (1) is completed on traditional printing equipment (such as, offset presses) or (2) exceeds the maximum limitations of 5,000 of a single page or 25,000 pages in aggregate for any one job, regardless of the type of equipment used to produce the work. 'Duplicating' is work that is completed on duplicating equipment and is less than the 5,000/25,000 page criteria spelled out in the Joint Committee on Printing's Government Printing and Binding Regulations."

DPS's non-compliance with Government regulations is buried on page 20 of the GAO draft report in Appendix I. However, GPO believes that this key point should be disclosed by GAO with the chart on page 6 of the GAO draft report.

Suggestion To GAO

The GAO should state in the body of this report that the (1) printing and duplicating workload data and (2) GAO sample data are based on DPS's classifications which are not defined in accordance with applicable Government regulations. As a result, some "printing" has been misclassified by DPS as "duplicating."

See comment 2.

The chart on page 6 of the GAO draft report should note that the annual amount of DOD "printing" is understated and the annual amount of DOD "duplicating" is overstated. The notation should also state that GAO does not know the dollar amount of misclassification which may be material. The report should clearly state that the terms "printing" and "duplicating," when used in this report, are based on DPS's classification.

B. Other GAO and DOD Reports Question the Accuracy and Reliability of DOD Automated Systems Used for Study

Congress requested that this study be a valid "cost" comparison. However, GAO ultimately conducted a "price comparison" due to "concerns regarding the completeness, accuracy, and reliability of DPS's cost accounting system" [Exhibit A, page 26]. While GAO concluded that the cost comparison was not possible, GAO went forward and used "workload" data from the same questionable DPS system. This DPS workload data was used as a baseline in GAO's study.

The GAO report should explain that workload and cost accounting data on DPS printing and duplicating is captured and exchanged by DOD automated systems that produce financial and management reports on DPS's operations and activities.

The GAO, and DOD's Office of Inspector General (OIG) have issued several reports questioning the reliability of information from the DOD Defense Business Operations Fund and related financial and management information systems used in this GAO study. GAO's knowledge and experience with relevant DOD information should have been fully considered when conducting this GAO study and reporting the results. DPS is a part of the Defense Business Operations Fund (DBOF), an industrial fund.

The DPS's Printing Resources Management Information System (PRMIS) provides cost and other workload data on printing and duplicating jobs performed by DPS. This system and associated data were crucial to the GAO study. In this regard, GAO should reiterate its statement on page 27 of its report (GAO/NSIAD-94-157) of April 15, 1994 (which is not this draft report):

"Financial statements produced from DPS's cost accounting system may be unreliable. Currently, the Inspector General of DOD is conducting a 1993 financial statement audit of the DBOF of which DPS is a part. However, accounting and financial reviews of DBOF lead us to be concerned about the reliability of DPS's cost accounting information. DBOF managers have acknowledged that DBOF financial reports are inaccurate."

See comment 3.

The GAO report, Financial Management Status of the Defense Business Operations Fund, dated March 1994 (GAO/AIMD-94-80), highlights the concerns about the integrity of information from the DBOF. The GAO report states that the DBOF's financial reports were inaccurate, and the cost accounting system was fragmented and needed to be improved to establish accurate prices.

This GAO/AIMD report also cites that the DOD OIG reported that (1) it could not render an opinion on the DBOF's Fiscal Year 1992 financial statements because the data were not complete and accurate, and (2) the DBOF financial reports contain billions of dollars of errors and cannot be relied on for decision-making purposes.

In comparison, the last audit of GPO's financial statements by GAO (i.e., Fiscal Year 1992) resulted in an "unqualified" opinion on the statements and internal controls.

In June 1994, GAO/AIMD issued another critical report of the DBOF, Defense Business Operations Fund: Improved Pricing Practices and Financial Reports Are Needed to Set Accurate Prices (GAO/AIMD-94-132). While the scope of the review was limited to depot maintenance and supply management operations, the report raises concerns about the reliability of DBOF prices. GAO used such prices for this DPS study.

In view of the above knowledge and experience, GAO was under an obligation to assess the reliability of this DPS workload data before use. Remember, the price differences between DPS and GPO for the GAO sample of printing and duplicating jobs were "weighted" based on DPS workload data from PRMIS. Because the GAO sample was not proportionate to the population, the weighting of sample results was necessary. This weighting of the sample was important for projection purposes and reporting overall results. Inaccurate and incomplete workload data could materially distort the weights used in GAO's analysis, and, therefore, undermine the confidence and integrity of the overall study results reported on page 6 of the GAO draft report.

Suggestion To GAO

The GAO should disclose, in the body of report, that past audit experience indicates that data from the DBOF and related DOD management information systems, such as DPS's Printing Resources Management Information (PRMIS), may be inaccurate, incomplete, and unreliable. Furthermore, the study used nationwide revenue and workload data on printing and duplicating from these systems for the GAO study.

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The GAO report states on page 11 that DPS raised prices by 18 percent for Fiscal Year 1995, which is after the study period. The GAO report should indicate that the DPS prices used in this GAO study have not been recovering the full costs of DPS's operations and are not in compliance with generally accepted accounting principles which require a matching of revenues and associated expenses.

In this regard, GAO should reiterate its statement on page 27 of its report (GAO/NSIAD-94-157) of April 15, 1994 (which is not included in this draft report):

"Moreover in our review of DPS's cost accounting system, we found that many costs were not included in the system. Examples of these costs are contracting support, payroll services, audit services, collection and disbursement activities, certain common support cost when DPS plants are located at military installations, some administrative overhead, and incentives for voluntary retirement or separation. DOD's Comptroller does not require DPS to capture these costs. However, according to DPS officials, DPS will capture these costs in Fiscal Year 1995."

C. GAO Apparently Did Not Assess Reliability of DOD Workload Data Used for Study Baseline as Required by GAO Auditing Standards

The GAO indicated that the DPS workload data for Fiscal Year 1993 was taken at face value, and used as the workload baseline for the GAO study.

To quote page 28 of the GAO draft report:

"Prior to the actual selection of the Fiscal Year 1994 sample orders, we performed an extensive analysis of DPS's Fiscal Year 1993 workload database to understand the characteristics of DPS's annual workload. **Using this data as a baseline, we statistically selected work orders from the Fiscal Year 1993 database that, when taken in aggregate, were representative of DPS's annual workload.** The characteristics of these jobs were then used as baseline criteria for matching Fiscal Year 1994 orders for our study." [Emphasis added]

See comment 4.

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The GAO draft report stated on page 28 that GAO's work was conducted in accordance with generally accepted auditing standards (GAGAS). GPO understands that this DPS workload data was apparently not assessed for reliability, as required by Government Auditing Standards (GAS 6.62 Validity and Reliability of Data From Computer-Based Systems). GAS 6.62 states:

"Auditors should obtain sufficient, competent, and relevant evidence that computer-processed data are valid and reliable when those data are significant to the auditor's findings. The work is necessary regardless of whether the data are provided to auditors or auditors independently extract them. Auditors should determine if other auditors have worked to establish the validity and reliability of the data or the effectiveness of the controls over the system that produced the data. If they have, auditors may be able to use that work. If not, auditors may determine the validity and reliability of computer-based data by direct tests of the data. Auditors can reduce the direct tests of the data if they test the effectiveness of general and application controls over computer-processed data, and these tests support the conclusions that the controls are effective." [Emphasis added]

The DPS workload data for Fiscal Year 1993 was used as a baseline for the study and directly impacted the weighting of the sample results. Thus, the data was critical to accomplishing the audit objectives, and has a material impact on the projections and conclusions of this GAO study.

The GAO report should follow the reporting standards of Chapter 4 in the GAO guide, Assessing the Reliability of Computer-Processed Data, dated September 1990, which is cited by GAS 6.62. In the event reliability was not determined, GAO's suggested report language is as follows:

"To achieve the assignment's objective(s) we extensively relied on computer-processed data contained in [cite the data base used]. We did not establish the reliability of this data because [cite the reason(s)]. As a result, we are unable to provide projections, conclusions, or recommendations based on this data. Except as noted above, GAO's work was conducted in accordance with generally accepted government auditing standards."

Suggestion To GAO

The GAO report should follow the reporting standards of Chapter 4 in the GAO guide, Assessing the Reliability of Computer-Processed Data, dated September 1990, which is cited by GAS 6.62.

The GAO should either (1) disclose in the GAO report the results of its reliability testing of the DPS workload and other data used for this study, or (2) in the event reliability of the data was not determined, GAO should state this exception to GAGAS. **In the latter case, GAO's final report should not include any projections or conclusions based on this DPS workload data, as required by GAO standards and guidance.**

D. DPS "Job" Workload Data Was Lacking

The GAO does not know how many of the DPS printing and duplicating jobs were in the population being studied (FY 1993 & FY 1994) due to the lack of DPS data on individual jobs. Yet, the draft GAO report makes unqualified statements about "jobs" that are factually incorrect and leads the reader to believe that GAO has more detailed knowledge of DPS jobs in the population than actually known. For example, page 3 of the draft GAO report states:

"The [DPS] in-house work comprises, for the most part, jobs priced at relatively low dollar values. **For example, in Fiscal Year 1993, 75 percent of the DPS's duplicating jobs were priced under \$103 and about 50 percent were priced under \$28.**"

As discussed later, GAO only had duplicating workload data on two of the eight DPS areas (i.e., Western Area and National Capital Area). Clearly, the body of the report should disclose these serious data limitations on DPS jobs.

Suggestion To GAO

The GAO report should make clear, in the body of the report, that DPS automated data on individual jobs were lacking and, as a result, GAO was forced to use requisition data without any knowledge of the individual jobs contained in many of these requisitions. GAO should fully describe (1) the sources of data for the study, (2) any source data limitations, (3) its efforts to construct a database for this study, and (4) any data-related assumptions used for this study.

See comment 5.

Section II.

Study Design and Methodology

A. Study Design Was Not Realistic and Disadvantaged GPO

GPO disagrees with the assertion on page 27 of the GAO draft report that this study was "an accurate and realistic comparison based on existing business relationships between DOD customers, DPS, GPO, and the private sector vendors."

The GAO can not in "good faith" tell Congress that this study is "accurate and realistic" when GPO was forced by GAO's methodology to buy DOD printing and duplicating jobs using "spot buy" procurement methods.

This study was at best a "worst case scenario" from GPO's viewpoint, and the results materially understate the cost-effectiveness of GPO's commercial contractors.

Direct-Deal Term Contracts

The GAO study, by design, forced GPO to use "small purchases" procurements (i.e., "spot buys") in place of Direct-Deal Term Contracts. Direct-Deal Term Contracts are generally the most economical and efficient means to provide recurring printing and duplicating services to Federal agencies. GPO's Direct-Deal Term Contracts could be used to satisfy most of DOD's in-house plant work, including classified work. GPO currently has 2,741 term contract nationwide (2,501 Direct-Deal Term Contracts and 240 GPO-Placed Term Contracts).

A Direct-Deal Term Contract results in lower unit costs for the Government because similar requirements are consolidated for a specific period of time into one requirement contract (e.g., 1-year). GPO printing contractors offer quantity discounts that reflect the economies-of-scale of larger Government requirements.

To illustrate this point, (1) the unit price of buying one can of soda may be \$.60 per can; (2) the unit cost of buying one case of sodas may be \$.25 per can (i.e., \$6.00 per case of 24 cans); and (3) the unit price of buying 1,000 cases of soda over year may be \$.20 per can (i.e., \$4.80 per case).

This principle works in printing and duplicating procurements where the unit of measure is commonly "impressions" produced. Contractors generally bid a rate based on production units.

In many instances, this unrealistic GAO study forced GPO to use more expensive "small purchases" to buy many small jobs that

See comment 6.

would normally be consolidated, at the request of the customer agency, and procured, at less cost, under Direct-Deal Term Contracts. GAO acknowledges on page 9 of the draft report that it "found that term contract usage reduced printing prices by about 40 percent."

Finally, the few Direct-Deal Term Contracts used in this study were selected by DPS, one of the two parties with a vested interest in the outcome of this study. Often the print orders placed by DPS were inappropriate for the job being procured. For example, DPS would place a GAO sample "duplicating" job under a GPO "printing" contract. This resulted in a higher prices to GPO who had no control over DPS's selection of procurement means.

GPO also noted instances where DPS would use existing GPO term contract prices to calculate GPO's price for sample jobs selected by DPS. DPS would compare the price estimate under the GPO contract to DPS's estimated price for the GAO sample job. The DPS estimated prices were less than GPO estimated prices in the instances reviewed.

Suggestion

GAO should prominently disclose the results of GPO's repricing effort which parallels GAO's statement that "term contract usage reduced printing prices by about 40 percent."

Small Dollar Value Duplicating Jobs

Second, the GAO study, by design, forced GPO to procure certain small duplicating jobs that would not normally be procured under the procurement methods used in this study. To illustrate, about 307 (28 percent) of GAO's sample jobs for this current study were under \$25, based on the DPS estimated price.

The GAO draft report indicated that "Self-Service Copying" and "Cost Per Copy Contract" work was not included in the scope of this analysis. However, DPS jobs are known to be misclassified (see Section I-A of GPO's Comments).

The previous GAO study database inappropriately included small value DPS jobs that GPO considers to be "convenience copying." For, purposes of this earlier study all duplicating jobs under \$25 were excluded from the pricing analysis. GAO accepted GPO's position that these jobs should be excluded from the comparison because **GPO is not in the business of providing convenience copying, regardless of how DPS classifies the work.**

GPO explained to GAO that DOD should be using "Cost Per Copy" contracts and "Self-Service Copying" in these instances. GPO cannot understand why GAO has not questioned this DPS practice

See comment 7.

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which appears to be uneconomical and inefficient.

To illustrate the situation, DPS requires that their customers complete an order form describing the job and obtain authorization signature(s) for the work. Next, DPS prepares an estimate, enters the job in PRMIS for accounting, provides the service, and then bills the customer through the billing system.

The DOD "duplicating job" being performed by DPS may be three copies of a ten-page document priced at \$.68 that could be made on any photocopying machine. The smallest sample job in this study was \$.42 and five of the GAO sample jobs were priced under \$1.

The GPO discussed the matter of small dollar value duplicating jobs, known commonly as "convenience copying," with GAO at the entrance meetings for this study. GAO gave assurances that the sample would not include such jobs for the comparative price analysis. Unfortunately, this was not true. Subsequently, GAO indicated that these jobs were in the GAO sample because the jobs were in DPS's database for duplicating work.

The GPO minimum surcharge for a job was \$10 during the study period. About 200 of the GAO sample jobs used in this study were priced by DPS at \$10 or less. So, there was no way GPO could have provided these 200 sample jobs for a price equal or less than DPS.

The purpose of GPO's minimum surcharge is two-fold. First and foremost, the surcharge is used to recover the administrative costs of processing the job. Second, the surcharge encourages agencies to procure work from other more economical and efficient means.

The administrative cost to DOD to process "convenience copying" through a system designed for "printing jobs" could easily be \$10 per job. This is a waste of the American taxpayers' money and GAO should have addressed this issue rather than forcing GPO to participate in a "fictional" price comparison of "convenience copying" labeled "duplicating" by DPS.

This unrealistic GAO price comparison of small value duplicating jobs distorted the study's results and clearly favored DPS. The GAO could have studied the economy of GPO commercial procurement of small value jobs. GAO could have allowed GPO to use prices from existing Direct-Deal, Direct-Pay Contracts. These contracts are designed for such work, and have no GPO surcharges added. This alternative procurement method would have provided more realistic prices. However, like Direct-Deal Term Contracts, GPO could not use this procurement method under GAO's methodology for the study.

Suggestion

The GAO should exclude all small value duplicating jobs (DPS Price of \$25 or less) from the analysis and results, as was done in the prior GAO study. The report should state that GPO believes that most, if not all, of this work could be more economically and efficiently provided through other means such as Self-Service Copying and Cost Per Copy Contracts.

B. Statistical Study Was of DPS "Requisitions" Not DPS "Jobs" or "Orders"

The GAO draft report interchangeably uses the words "requisitions," "orders," and "jobs." This is confusing to the reader and factually incorrect. Subsequently, GAO statisticians stated that DPS lacked adequate data to conduct this study at the "job" level, and, therefore, the study was conducted at the "requisition" level.

Based on our discussions with GAO, one "requisition" as used in this study equals:

- (1) one individual printing job, or one individual duplicating job;
- (2) a group of printing, or group of duplicating jobs batched together for billing purposes (a.k.a. Combined Billing); and
- (3) an "open requisition," which is a group of all printing and/or duplicating jobs from a certain DOD customer for a certain period of time (e.g., 1 fiscal year).

According to discussions with GAO, (1) the statistical analysis and reporting of results for this study was done at the "requisition level," and (2) the sample units for the comparative price analysis were "printing jobs" and "duplicating jobs."

That fact that some requisitions (e.g., open requisitions) consist of both "printing" and "duplicating" jobs raises further concerns about the accuracy of workload classification for this study. GAO indicated that the dollar value of the "open requisitions" was significant for the Fiscal Year 1993 population. However, the dollar amount was not known.

The chart on page 6 of the GAO draft report should be qualified to reflect that the classification of "printing requisition" and "duplicating requisition" data (i.e., number of requisitions and dollar amount) is not based on absolute data, and may be misclassified between the two groups (i.e., printing and duplicating) for such reasons.

See comment 8.

Government Auditing Standards for reporting (GAS-7-16) state:

"Every effort should be made to avoid any misunderstanding by the reader concerning the work that was and was not done to achieve the audit objectives, particularly when the work was limited by relying on internal controls or because of constraints on time and resources."

The GAO draft report did create misunderstandings due to the inappropriate use of key words such as "job," "order," and "requisition." This provides further evidence that due professional care was not always exercised by the GAO for this study.

Suggestion To GAO

The GAO report should note that the number of requisitions and the dollar value for both printing and duplicating requisitions, in the chart on page 6 of the draft report, contain probable misclassifications of actual work, between printing and duplicating because of the lack of absolute data on DOD open requisitions.

The GAO should also indicate that DPS lacks data on the total number of jobs performed or ordered during the study period (i.e., Fiscal Years 1993 and 1994).

C. GAO Classification of DPS Workload for Study Was Overly Simplistic

GPO believes that the GAO study and report is overly simplistic when viewed from a printing technical viewpoint. GPO believes that the technical aspects of printing and duplicating for both production and procurement are much more complex. Further, the GAO report would have been more useful to the Government if GAO had analyzed printing and duplicating "jobs" instead of "requisitions."

Page 29 of the GAO draft report indicates that GAO reviewed DPS's 184 separate-production processes and determined that 17 processes accounted for 90 percent of DPS's annual production. GAO states further that on page 29:

"Using the 17 key processes, we categorized most of DPS's workload into groups of common processes that made up DPS's Fiscal Year 1993 product mix. We further divided the printing and duplicating jobs into separate categories; separated the jobs according to price (greater than \$500 and less than or equal to \$500); and noted special attributes of the job--for example, its

See comment 9.

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price, number of workdays available to provide the product (turnaround time), ink color, paper stock, binding, and wrapping."

GPO's Automated Bid List System (ABLS) maintains contractor's detailed information on contractor production capabilities. The ABLS classifies production capabilities into 52 primary Manufacturing Specialties (e.g., pamphlets, boxes, maps, composition, microfiche, etc.) which is further defined into several hundred subprocesses (e.g., ink-multicolor, inserts, die cut, bar code, etc.).

The reporting of GAO's analytical results, using DOD "requisitions," transmits little useful information to the reader of this report. To illustrate, GAO defined all DOD printing and duplicating work into four groups, based on "requisitions," as follows:

Printing Requisitions

- (1) "Large" (over \$500)
- (2) "Small" (below \$500)

Duplicating Requisitions

- (1) "Large" (over \$500)
- (2) "Small" (below \$500)

Page 4 of the GAO draft report states that these four workload groups are "jobs," and the chart on page 6 indicates that these four workload groups are "orders" in the first column and "requisitions" in the third column. The GAO statistical experts who designed this study clarified that the four groups used in the classification of workload for analysis and reporting purposes are "requisitions" and not "jobs" or "orders."

GPO customers order "jobs" for GPO to procure or produce. DPS plants produce "jobs" too. The printing industry produces "jobs" for the Government and private sector. Thus, the common unit of work in the Government and industry is a printing or duplicating "job." It is not a "requisition" as GAO uses in this study.

"Requisitions," as used in this study, are merely instruments used for financial purposes -- primarily billing DOD customers. The use of the term "requisition" in this study confuses the reader, especially when used interchangeably with the term "job."

GAO should have conducted the analytical analysis for the study at the "job" level, instead of using "requisitions." GAO could have performed a "Make or Buy Decision" analysis using a stratified sample to develop a job "Break-even Point" for both printing and duplicating.

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Additionally, GPO should reiterate our earlier comments about how an unknown amount of DPS "printing" was misclassified as "duplicating" and included as such in this analysis (see Section I-A of GPO's comments).

In conclusion, GPO has doubts about the usefulness to Congress of a report that classifies the entire \$228 million of DOD printing and duplicating work into four simplistic groups for analysis and reporting purposes, as follows:

<u>Type Work</u>	<u>Number of Requisitions</u>	<u>Requisition Type</u>	<u>FY 1993 Work (millions)</u>
<u>Printing:</u>			
	(1) 11,000	Large Requisitions	\$ 20
	(2) 51,000	Small Requisitions	5
<u>Duplicating:</u>			
	(3) 62,000	Large Requisitions	185
	(4) 292,000	Small Requisitions	18

Clearly, GAO could have provided the results of this analysis in a more useful manner to Congress and the other interested parties.

Suggestion

GAO should define the meaning of a "requisition" in the body of the report and disclose that a requisition could equal one or several hundred printing and/or duplicating jobs commingled under an "Open Requisition."

D. GAO Did Not Adequately Consider Product Quality as Congress Requested

The Congress requested that this study between DPS and GPO consider "product quality" [Exhibit A, page 2]. Quality is an important factor affecting the cost and pricing of printing and duplicating services.

GPO understands that DPS does not have a product quality classification system. For this GAO study, DPS determined and assigned "Quality Levels" to jobs submitted to GPO using GPO's Product Quality System.

The GPO Quality Assurance Through Attributes Program is used by all Federal agencies including DOD/DPS when ordering printing and duplicating services from GPO [Exhibit L]. This system has been accepted and is widely used by the Printing Industry of America.

See comment 10.

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Quality levels relate to the accuracy of reproduction and cannot be determined by reviewing a single product. Very poor quality copy can be reproduced extremely accurately if required. Generally, the more accurate the reproduction the higher the price.

Every GPO commercial contractor has an established quality level based on GPO's evaluation of the contractor's production equipment, product samples, and production results. Product quality inspections are routinely conducted by GPO personnel at contractor plants. GPO's Product Quality System has five quality levels. Quality Level I is the highest quality level.

The distribution of GPO's 13,092 contractors is as follows:

QUALITY LEVELS FOR
GPO'S CONTRACTORS
as of January 1995

Quality Level	Number of Contractors	Percentage by Quality Level
I	37	.28
II	338	2.58
III	1,377	10.52
IV	4,496	34.34
V	6,844	52.28
TOTAL	13,092	100.00

Source: GPO Automated Bid List System

The DPS also ordered work inappropriately described by DPS as "duplicating" that required the GPO contractor to provide "negatives." In these instances, the DPS requirement forced GPO to buy the work as "printing" and incur higher prices for the GAO study.

Unfortunately, "product quality" was not one of GAO's "job sample criteria" for this study. Thus, DPS, one of the two parties with a vested interest in the outcome of this study, was able to establish and control "product quality" to its advantage. In some instances, DPS inappropriately required GPO to procure Quality Level III "printing" work which was unfairly priced by DPS as less expensive "duplicating" work for purposes of the GAO comparative price analysis.

Suggestion To GAO

The GAO report should make clear that DPS, not GAO, established GPO Quality Levels for sample jobs that DPS selected and sent to GPO for performance.

The GAO should take action to correct this unfair situation caused by GAO's lack of product quality control. GAO should either (1) discard the Quality Level III jobs priced by DPS as non-printing jobs, plus those DPS "duplicating jobs" with "negative requirements," or (2) require DPS to reprice the jobs as printing, as GPO was required to do as a result of DPS's actions.

E. GAO Allowed DPS to Select Sample Jobs

The GAO designed the study in a manner in which DPS was given responsibility to select the samples of printing and duplicating jobs used in this comparative price analysis. DPS was one of the two parties with a vested interest in the outcome of this study. GAO's action gave DPS an opportunity to bias the sample selection and adversely impact the study results. As discussed later in GPO's Comments (Section III-D and E), DPS used this opportunity to its advantage.

In summary, the DPS workload for the GAO study was divided into two primary groups that were subdivided by work classification and DPS price into a total of eight groups, as follows:

I. Open Requisitions:

- (1) Printing Sample:
 - a. Large Requisitions - over \$500
 - b. Small Requisitions - \$500 or less
- (2) Duplicating Sample:
 - a. Large Requisitions - over \$500
 - b. Small Requisitions - \$500 or less

II. Non-Open Requisitions:

(Individual Requisitions & Combined Billings)

- (1) Printing Sample:
 - a. Large Requisitions - over \$500
 - b. Small Requisitions - \$500 or less
- (2) Duplicating Sample:
 - a. Large Requisitions - over \$500
 - b. Small Requisitions - \$500 or less

See comment 11.

Open Requisitions

For Open Requisitions, GAO instructions to DPS were simply to select either (1) the next 10 jobs placed under a specific open requisition, or (2) the next 20 jobs placed under a specific open requisition. The two sample sizes were based on whether GAO classified the open requisition as (1) a "Large" Requisition (Sample Size of 20) or, (2) a "Small" Requisition (Sample Size of 10). DPS had considerable discretion in selecting open requisitions because GAO did not provide specific "Job Specification Criteria" to minimize bias in the selection process.

Non-Open Requisitions

For Non-Open Requisitions, the GAO instructions to DPS were to match on specific "job specification criteria" for the sample jobs. GAO states on page 4 of the draft report that the selections were reviewed by outside expert printing consultants to verify that selections were appropriate.

Unfortunately, GAO did not enforce the "job specification criteria" and as a result most of the jobs accepted were not "twins" as misrepresented in GAO's draft report (see Section III-C of GPO's Comments).

Regardless of DPS's actions, GAO should have never relinquished control of the sample selection to the DPS, the auditee, and one of the two parties with a vested interest in the outcome of this GAO study. GPO considers this another act of favoritism towards DPS. GAO was under an obligation to exercise due professional care in designing this study.

F. GAO Allowed DPS to Control the Release of Sample Jobs Sent to GPO And Study's Source Documentation

GAO designed the study in a manner in which DPS was given responsibility to control the release of job orders sent to GPO for fulfillment. DPS was one of the two parties with a vested interest in the outcome of this study. GAO's action gave DPS an opportunity to bias the sample selection and adversely impact the study results. As discussed later in GPO's Comments (Section III-D), DPS used this opportunity to its advantage.

The GAO allowed DPS to control the release of job orders to GPO, assign the quality level of each job, and define the classification of work (duplicating or printing). The GAO also accepted DPS's source documentation for the study without independent verification against the documentation sent by DPS to GPO.

GPO was never contacted by GAO and asked to provide any DPS job order documentation for verification. The DPS also provided GAO with the GPO Invoice Price for the sample jobs. A sample could have been taken by GAO to establish a level of confidence in the DPS documentation given GAO.

The GPO Printing Procurement Department compared some DPS sample jobs (provided by GAO in January 1995) to GPO records from DPS. The review identified certain differences in quantities and other data that favored DPS. For example, GAO accepted DPS's price for 5 pads (100 sheets each), when DPS actually ordered 500 pads (100 sheets each) from GPO (GAO ID # CNA09-31-184). Other unexplainable discrepancies warrant GAO's attention.

GAO should have never allowed DPS to control the release of orders without establishing adequate and effective controls to prevent bias. GPO considers this another act of favoritism towards DPS. GAO was under an obligation to exercise due professional care in the planning and performance of this study.

G. Substantial Paper Price Increase During Study Impacts Integrity of Price Comparison

Paper prices rose as much as 20 to 40 percent during 1994. This confounding, intervening event had a material impact on the study results. This extraordinary paper price increase started in 1994 during the GAO study period and continued throughout the study period. Paper prices had been relatively constant before this extraordinary increase that is comparable to a similar increase in the early 1970's.

The GAO draft report notes this paper price increase on page 10. However, the impact of this intervening event is not explained and reflected in the draft report. The results of the entire GAO study may have been significantly distorted in DPS's favor as a result of this intervening event. Paper costs are a major cost element in printing and duplicating, and significantly impact both GPO and DPS prices.

The GPO advised the GAO, during the study period, that GPO commercial prices were increasing as a result of the extraordinary paper price increase. GPO commercial printing prices react more quickly to market conditions than the DPS plant prices.

The DPS plants buy paper from both GSA and DPS which maintain paper inventories at Government warehouses.

See comment 13.

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The DPS has paper inventories too. GPO believes that DPS's paper costs for the study were probably less impacted by the rapid increase in paper prices because of these Government paper inventories. The fixed Government contract prices for paper and Government warehouse inventories of paper stock would have delayed the impact of the paper cost increases upon DPS's estimated prices used for GAO's study.

However, GPO procured many of the sample jobs using "spot buy" procurement methods. Many of GPO's printers are small businesses that buy paper as needed. Thus, the paper cost increases would have been felt sooner by GPO's contractors.

The impact of these extraordinary paper price increases on GPO's prices used in this study would have been less, if GAO had designed the study to allow GPO to use a realistic proportion of Term Contracts. GPO Term Contracts generally have fixed prices that effectively "lock-in" paper prices for the period of the contract (e.g., 1-year).

As a result, the price differences between GPO and DPS for this study probably reflect unequal paper cost increases for this intervening event. GAO should have evaluated this intervening event further to assess its impact on the study. Mere disclosure of this event is not adequate under the circumstances.

Suggestion To GAO

The GAO should analyze this intervening event further to assess the impact of the extraordinary increase in paper prices during the study period. If GAO cannot adequately assess the impact of this intervening event, then the report should make clear that the results of the study may have been impacted and the effect could not be measured and factored in GAO's analysis.

The GAO report also states on page 26: "To determine DPS prices, DPS officials used their uniform pricing nationwide pricing schedule, and we had printing consultants verify the pricing." GAO should add that the DPS uniform price schedule does not include paper prices, which are established separately by each DPS plant.

See comment 14.

H. GAO Did Not Test the Study's Methodology Before Use

The GPO understands that the GAO study methodology, as designed, was not tested before acceptance and use. GAO indicated that the study took about 1 1/2 years and required considerable Government resources at the three agencies involved in the study (i.e., GPO, DPS, and GAO). GAO also incurred considerable costs for consultants and nationwide travel by the project team.

GAO should have tested the methodology for a small sample of jobs before embarking on this massive effort. A prudent analyst would have conducted such testing, through a pilot study, to improve the quality of the final study's design and effectiveness in meeting the objective(s). The fact that GPO identified GAO control weaknesses and other conditions is a testament that due professional care was not always exercised by GAO for this study.

Section III.

GAO Printing and Duplicating Sample

A. GAO "Cloned" About 80 Percent of Duplicating Jobs Used for Study

The GAO study was hindered by the lack of automated DPS job workload data on duplicating for most of this nationwide study. However, this crucial fact was not disclosed in the body of the GAO draft report, but buried in Appendix III Scope and Methodology of the draft report on page 29. To quote page 29 of the GAO draft report:

"After stratifying all DPS's Fiscal Year 1993 processes into discrete printing and duplicating jobs, we selected individual jobs from the database to obtain a proper job mix that was statistically representative of DPS's Fiscal Year 1993 workload. For printing orders, we selected individual jobs across all DPS regions. However, because of data limitations, we selected individual duplicating jobs from only two--the National Capital Area and the Western Area--of DPS's eight areas. To establish a duplicating base for the remaining areas, we replicated the Western Area's jobs and assigned them to the other [six] areas as well."
[Emphasis added]

The GAO draft report indicates that the GAO sample consisted of 1,242 sample jobs (i.e., 330 printing jobs and 912 duplicating jobs). The DPS workload for Fiscal Year 1993 was valued at \$25 million for printing and \$203 million for duplicating. The fact that GAO "cloned" 774 (80 percent) of the 912 duplicating jobs in this sample from one DPS regional area for the other six DPS regional areas should have been disclosed better in the GAO report. Thus, most of the sample duplicating jobs used in the GAO study were not based on an understanding of DPS's nationwide workload, but only two of the eight DPS areas.

The GAO statisticians for this study stated that an assumption was used because of the lack of actual workload data on jobs for most of DPS's duplicating (\$203 million for Fiscal Year 1993). The assumption being that the workload mix of DPS's Western Area was the same as the other six DPS regional areas.

Government Auditing Standards for reporting (GAS 7-15) require GAO to identify assumptions used in conducting the audit, as follows:

See comment 15.

"The statement of methodology should clearly explain the evidence gathering and analysis techniques used to accomplish the audit's objectives. **The explanation should identify any assumptions made in conducting the audit, describe any comparative techniques applied and measures and criteria used to assess performance, and if sampling is involved, describe the sample design and state why it was chosen.**" [Emphasis added]

The GAO stated that this assumption was not based on any GAO testing or experience, but limited to DPS's assurances that the assumption was reasonable. DPS is one of the two vested parties with an interest in the outcome of this study. GPO believes that this is another instance where GAO failed to exercise due professional care.

Additionally, The GAO does not know how many of the DPS printing and duplicating jobs were in the population being studied! Yet, the GAO draft report makes unqualified statements about duplicating "jobs" that are factually incorrect and leads the reader to believe that GAO has detailed knowledge of these jobs. For example, page 3 of the GAO draft report states:

"The [DPS] in-house work comprises, for the most part, jobs priced at relatively low dollar values. **For example, in Fiscal Year 1993, 75 percent of the DPS's duplicating jobs were priced under \$103 and about 50 percent were priced under \$28.**"

As discussed earlier, GAO could only obtain workload data on two of the eight DPS areas (i.e., Western Area and National Capital Area).

Suggestion

The GAO should indicate, in the body of the report, their assumption that DPS had no regional workload diversity, and about 80 percent of the sample duplicating jobs in the study were "cloned" by GAO. GAO should also state that no tests were conducted by GAO to verify the validity of this assumption which is critical to establishing a workload mix for weighting of the sample jobs used in this study.

B. GAO Price Analysis for "Open Requisitions" Sample Was Limited to Two of Eight DPS Areas and Inappropriately Projected Over Six Untested DPS Areas

The GAO sample of DPS "Open Requisitions" used for the study consisted of 295 duplicating jobs and 10 printing jobs. Like "Duplicating Jobs," GAO also had inadequate workload data on "Open Requisitions."

To illustrate, GAO stated to GPO that it did not have data on:

- (1) The number and dollar value of "Open Requisitions" in the population being studied (Fiscal Year 1993); and
- (2) The distribution of "Open Requisitions" in the population (Fiscal Year 1993) by each of the eight DPS areas;

The GAO indicated that "Open Requisitions" represented a significant dollar amount.

The GPO questions how GAO could have properly studied "Open Requisitions" with inadequate population data for sample, analysis, and projections purposes.

The GAO also indicated that "Open Requisitions" were present in all eight DPS areas. However, the GAO sample was for only two DPS areas (i.e., Western Area and National Capital Area).

GAO stated that the price analysis results (i.e., DPS/GPO job price differences, or "deltas from the sample") from the Western Area were "replicated" for the six other DPS regional areas that were not tested by GAO. The results of GAO's "replication" were then incorporated into the entire study results.

The GPO was not able to locate GAO's disclosure of this questionable assumption in the Methodology Section or other parts of this GAO draft report given for GPO to comment upon [Exhibit B].

Government Auditing Standards for reporting (GAS 7-15) require GAO to identify assumptions used in conducting the audit, as follows:

"The statement of methodology should clearly explain the evidence gathering and analysis techniques used to accomplish the audit's objectives. The explanation should identify any assumptions made in conducting the audit, describe any comparative techniques applied and measures and criteria used to assess performance, and if sampling is involved, describe the sample design and state why it was chosen." [Emphasis added]

Furthermore, all parties to this study are aware that GPO's commercial contract prices vary by geographic areas. Thus, this non-disclosed GAO assumption conflicts with known facts about the subject being studied. GAO's actions raise further concerns about the integrity of this study.

Suggestion

The GAO should indicate, in the body of the report, that:

- (1) GAO lacked workload data on the number and dollar of DPS Open Requisitions" in the study population;
- (2) GAO assumed that DPS had no regional workload diversity for "Open Requisitions" without proper testing or other evidence;
- (3) No testing was done by GAO for six of the eight DPS areas with Open Requisitions; and
- (4) The results of the DPS Western Area were "replicated" for the six other DPS regions, even though there is known geographic diversity in GPO contractor prices around the Nation that would impact the GPO/DPS price comparison results.

GAO should assess the impact of its inadequate testing and analysis and inform readers of the report through appropriate disclosures and qualifications. GAO should inform readers that the results of the study may be (1) inaccurate because of unreliable assumptions used in data analysis and projections, and (2) lack of actual testing through sampling of jobs.

C. GAO Did Not Adhere to Job Specification Selection Criteria for Sample of "Twin" Jobs

See comment 17.

The draft report does not disclose that about 89 percent of the sample jobs selected by DPS and accepted by GAO did not meet GAO's job specification criteria for the sample.² GAO gave explicit written instructions that the Fiscal Year 1994 sample jobs selected by DPS were to be "twins" of Fiscal Year 1993 jobs based on GAO's analysis of DPS workload. Thus, the sample used in this analysis is not representative, and the study's results are highly questionable.

The planned matching of jobs based on "specific job specification criteria" was a GAO control to minimize DPS bias. Keep in mind that GAO allowed DPS to (1) select the entire sample of Fiscal Year 1994 jobs used for the study, and (2) control the timing and means used to release the sample orders to GPO for performance.

² The GPO's review was limited to 1,166 sample jobs (303 printing and 863 duplicating). GAO has not provided GPO with access to data on the entire sample.

The importance of GAO's "matching" control technique is reflected on page 27 of the GAO draft report:

"In designing and implementing our comparative methodology, we were particularly sensitive to possible bias in favor of one agency or the other and its potential adverse effect on our results. We developed appropriate controls to minimize bias and provide an accurate and realistic comparison based on existing business relationships between DOD customers, DPS, GPO, and private sector vendors. For example, we examined DPS's Fiscal Year 1993 workload data to develop specific job specification criteria for selecting [Fiscal Year] 1994 sample orders. We discussed our approach with DPS and GPO officials, and a recognized external printing expert and used suggestions to refine our methodology. Further, we used independent printing consultants from public and private sectors to assist in reviewing DPS's sample order selections and verifying DPS's price calculations." [Emphasis added]

Page 31 of the GAO draft report states: "If the panel determined that a **match was improper**, the job was not included in our sample and DPS plant officials were requested to select a replacement job that more accurately reflected the required processes and attributes."

The importance of GAO's "Job Specification Criteria" to obtain a representative sample for the GAO study is discussed on page 28 of the GAO draft report:

"Prior to the actual selection of the Fiscal Year 1994 sample orders, we performed an extensive analysis of DPS's Fiscal Year 1993 workload database to understand the characteristics of DPS's annual workload. Using this data as a baseline, we statistically selected work orders from the Fiscal Year 1993 database that, when taken in aggregate, were representative of DPS's annual workload. The characteristics of these jobs were then used as baseline criteria for matching Fiscal Year 1994 orders for our study." [Emphasis added]

Page 4 of the GAO draft report discusses the importance of matching job specification criteria to obtain a representative workload sample of printing and duplicating jobs for GAO's comparative price analysis:

"Our price comparison was based on a statistically representative sample of 1,242 actual DOD customer printing and duplicating orders generated in [Fiscal Year] 1994. For purposes of our analysis we defined a large job as one whose DPS price exceeded \$500, while a

small job as equal to or less than \$500. **The orders were selected by DPS officials using job specification criteria that we established from a random sample for Fiscal Year 1993 DPS requisitions.** The selections were reviewed by outside expert printing consultants to verify that the selections were appropriate. As DOD customers routinely submitted work orders, **DPS officials selected orders that matched our [job specification] criteria and, rather than producing the work in DPS facilities, sent it to GPO, who largely had the work produced by printing contractors.** Those passing the expert review were used as the sample for this study." [Emphasis added]

The GAO also issued written instructions to DPS [Exhibit G] for the selection of "twin" sample jobs to specifically address the need for DPS to select jobs matching GAO's job specification criteria and other attributes, as follows:

"We identified DPS products which represent a range of duplicating and printing activities produced during Fiscal Year 1993 from the [DPS] Printing Resource Management Information (PRMIS), classified the DPS products into two groups (printing and duplicating), and selected representative products from each.

We ask you 1) select products from your incoming work using criteria we provide, 2) send those jobs to GPO for procurement, and 3) keep us informed of the status of those jobs using the forms we provide for that purpose. Explicit instructions follow below and a summary of the steps you should follow appear on the last pages of these instructions.

Each DPS area will receive two packages of work categorized by printing and duplicating services for specific plants. Each package will contain FY 1994 Job Request forms which describe products we want you to select. We also provide Weekly Progress Report and Open Requisition Tracking forms to enable you to track identified jobs and provide information to us on the status of those jobs.

We ask you to select incoming products that are similar to each described product and to produce them according to the following rules. You should judge the similarity between our descriptions and the incoming request based upon the criteria specified on the FY 1994 Job Request form. For example, your total costs to produce the item should fall within the range of costs we specify; the total number of pages should fall within the range of pages we specify; the attributes of

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the incoming item should match the attributes we specify."

The GPO reviewed GAO's automated database for sample jobs to quantify the extent of the non-compliance with GAO's "Job Specification Criteria" for each sample job released to GPO [see Exhibits J and K]. The analysis relied on GAO's "Comments" field in the automated database provide by GAO [Exhibit H and I].

The following charts summarize the lack of non-compliance for the sample jobs made available to GPO by GAO. The charts evaluate (1) the DPS Price (dollar range used), (2) the Number of Original Impressions (range of pages), (3) Number of Workdays Authorized (specific number of days, or 10 or more days), and (4) Other Technical Specifications (e.g., paper stock, leaves, drilling, etc.).

**Summary of GAO's Non-Compliance With
"DPS Price" Criteria for Sample Jobs**

SAMPLE GROUP & SAMPLE SIZE (# of Jobs)	Jobs Above \$ Range		Jobs Below \$ Range		Total Jobs Not Meeting Criteria	
	#	%	#	%	#	%
I. Printing (303 jobs)	92	30	93	31	185	61
II. Duplicating (863 jobs)	246	29	221	26	467	54
Total Sample (1,166 jobs)	338	29	314	27	652	56

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Summary of GAO's Non-Compliance With
 "Number of Original Impressions" Criteria for Sample Jobs

SAMPLE GROUP & SAMPLE SIZE (# of Jobs)	Jobs Above Page Range		Jobs Below Page Range		Total Jobs Not Meeting Criteria	
	#	%	#	%	#	%
I. Printing (303 jobs)	44	15	53	17	97	32
II. Duplicating (863 jobs)	191	22	145	17	336	39
Total Sample (1,166 jobs)	235	20	198	17	433	37

Summary of GAO's Non-Compliance With
 "Number of Workdays Authorized" Criteria for Sample Jobs

SAMPLE GROUP & SAMPLE SIZE (# of Jobs)	Jobs Above Workday Range		Jobs Below Workday Range		Total Jobs Not Meeting Criteria	
	#	%	#	%	#	%
I. Printing (303 jobs)	0	0	107	35	107	35
II. Duplicating (863 jobs)	0	0	192	22	192	22
Total Sample (1,166 jobs)	0	0	299	26	299	26

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Summary of GAO's Non-Compliance With
 "Other Technical Specification" Criteria for Sample Jobs

SAMPLE GROUP & SAMPLE SIZE (# of Jobs)	Total Jobs Not Meeting Criteria	
	Number	Percentage
I. Printing (303 jobs)	219	72
II. Duplicating (863 jobs)	609	71
Total Sample (1,166 jobs)	828	71

The following chart shows examples of DPS selected duplicating jobs from two DPS areas that were not within the GAO criteria for "DPS Prices."

Examples of GAO Sample Jobs
 Not Within "DPS Price" Range Criteria

GAO ID Number	"DPS Price" Criteria Range		GAO Accepted DPS Price
	From	To	
NEA 04-31-112H	\$23.00	\$47.00	\$123.75
NEA 07-31-156C	40.00	64.00	16.99
NEA 09-31-157B	44.00	64.00	4.26
NEA 11-31-119X	1,638.00	2,503.00	701.56
NEA 11-32-287X	3,319.00	5,300.00	519.58
NEA 12-32-289	3,128.00	6,784.00	1,668.39
CNA 06-31-167	1,638.00	2,516.00	691.00
CNA 04-31-082	1,638.00	2,516.00	1,318.01
CNA 06-31-108D	396.00	500.00	138.24
CNA 06-31-157D	227.00	325.00	94.00
CNA 07-31-112F	0.00	6.00	76.05
CNA 08-31-135	311.00	465.00	94.58

Suggestion

The GAO should correct the misleading statements in the draft report indicating that the comparative price analysis in Fiscal Year 1994 used "twin jobs" representative of DPS's jobs from Fiscal Year 1993. The GAO report should disclose that the DPS selections were in most instances non-matches based on GAO's "job specification criteria."

The GAO should assess whether DPS's actions introduced bias adversely impacting the study results. GPO believes that systemic bias was caused by this breakdown in controls (see Section III-D, which follows).

D. Systemic Bias - Work Days Given to GPO for Job Performance Were Less Than GAO Authorized

The GPO analysis of the accepted GAO sample jobs (see Section III-C) disclosed systemic bias in regard to DPS's selection of "twin" sample jobs that GAO accepted. Specifically, the amount of time GPO was authorized to provide the printing or duplicating job to DOD (i.e., turnaround time) was often less than the GAO "Job Specification Criteria" given DPS to match.

This contradicts the following statement on page 31 of the GAO report and raises concerns about the quality of GAO's review.

"Overall, we found no evidence of systemic bias in this selection process."

Specifically, GPO reviewed the "Comments" field in GAO's automated database for each DPS selected sample job accepted by GAO. The GAO "Comments" field indicated that GPO was often given less time than GAO's "job specification criteria" for "Number of Workdays to perform." In some instances, the comments included statements indicating that GPO was not given a fair amount of time to do the GAO sample job. For example, GAO sample job number NEA14-31-186 had the following comment:

"GPO received less than a 'fair share' time allotment."

GPO's analysis of GAO's "Comments" field disclosed a pattern that can only be considered "systemic bias."

Specifically, 107 (35 percent) of the 303 printing jobs given GPO for performance had less authorized workdays than GAO's job specification criteria.

Specifically, 192 (22 percent) of the 863 duplicating jobs given GPO for performance had less authorized workdays than GAO's job specification criteria.

See comment 18.

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Not one of GAO's "comments" on the sample jobs indicated that GPO was provided more time than authorized in GAO's Job Specification Criteria.

The GAO written instructions to DPS [Exhibit G] for the selection of "twin" sample jobs specifically address the need for DPS to match the attributes of the GAO sample job:

"We ask you to select incoming products that are similar to each described product and to produce them according to the following rules. You should judge the similarity between our descriptions and the incoming request based upon the criteria specified on the FY 1994 Job Request form. For example, your total costs to produce the item should fall within the range of costs we specify; the total number of pages should fall within the range of pages we specify; **the attributes of the incoming item should match the attributes we specify.**" [Emphasis added]

Additionally, GPO's review of actual DPS orders sent to GPO disclosed other examples where GPO was given less time than intended, and reported by DPS to GPO. GPO compared DPS's turnaround requirements of sample jobs and discovered instances where DPS actually gave GPO less workdays to perform the job than DPS documentation sent to GAO.

E. DPS Ordered Quality Level III Printing Jobs and Inappropriately Priced as Duplicating Jobs

The Congress requested that this study between DPS and GPO consider "product quality" [Exhibit A, page 2]. Quality is an important factor affecting the cost and pricing of printing and duplicating services.

As discussed in Section II-D of GPO's Comments, the GPO Quality Assurance Through Attributes Program is used by all Federal agencies including DOD/DPS when ordering printing and duplicating services from GPO [Exhibit L]. This system has been accepted and is widely used by the Printing Industry of America.

Unfortunately, "product quality" was not one of GAO's "job sample criteria" for this study. Thus, DPS, one of the two parties with a vested interest in the outcome of this study, was able to establish and control "product quality." In some instances, DPS inappropriately required GPO to procure Quality Level III "printing" work, which was unfairly priced by DPS as less expensive "duplicating" work for purposes of the GAO comparative price analysis.

See comment 19.

DPS requested that GPO perform certain sample jobs that were priced by DPS as "duplicating work" (GPO Quality Level IV). GPO was not aware that DPS was pricing the sample work as "duplicating," nor was GPO informed that "duplicating" was acceptable. DPS requested that GPO provide a Quality Level III product for these jobs. As a result, GPO procured the subject sample jobs as "printing" which was higher in quality than "duplicating" and also more expensive.

GAO should have ensured that product quality was controlled for this study (i.e., a job specification criteria) as Congress had requested. Furthermore, DPS should have informed GPO that "duplicating" was acceptable (Quality Level IV) when DPS priced the same sample jobs as "duplicating."

Only about 10 percent (1,377 of 13,092) of GPO's contractors are capable of producing Quality Level III work. About 87 percent (11,340 of 13,092) of GPO's contractors are capable of producing lower quality work, such as duplicating (Quality Levels III and IV). For this study, GPO followed customer agency's request (i.e., DPS) and used the higher quality level. Thus, the combination of fewer contractors and a higher quality level requirement increased GPO prices for this study.

The decision of GPO on the application of product quality levels should be final.

Suggestion

The GAO should take action to correct this unfair situation caused by GAO's own lack of product quality control for the study. GAO should either (1) discard the Quality Level III sample jobs that were biased by DPS's actions, or (2) require DPS to reprice the jobs as printing.

F. GAO Inappropriately Included Small Value Duplicating Jobs in Sample

As discussed in Section II-A of GPO's comments, the GAO study's design forced GPO to procure certain small duplicating jobs that would not normally be procured under the procurement methods used in this study.

The GAO draft report indicated that "Self-Service Copying" and "Cost Per Copy Contract" work was not included in the scope of this analysis. However, DPS jobs are known to be misclassified (see Section I-A of GPO's Comments).

The previous GAO study database inappropriately included small value DPS jobs that GPO considers to be "convenience copying." For purposes of this study, all duplicating jobs under \$25 were

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excluded from the pricing analysis. GAO accepted GPO's position that these jobs should be excluded from the comparison because **GPO is not in the business of providing convenience copying, regardless of how DPS classifies the work.**

The following chart shows the magnitude of small value jobs selected by DPS for the GAO study. About 53 percent of the total sample printing and duplicating jobs were valued by DPS at \$100 or less.

Stratification of GAO Sample Jobs
By DPS Price (\$100 or Less)

DPS Price	# Jobs	Sample
\$0.00 to \$5.00	92	6 %
\$5.01 to \$10.00	111	8 %
\$10.01 to \$15.00	86	6 %
\$15.01 to \$20.00	63	4 %
\$20.01 to \$25.00	55	4 %
\$25.01 to \$50.00	175	12 %
\$50.01 to \$100.00	186	13 %
TOTAL	768	53 %

GPO is concerned about the reliability of data on DPS's workload used as a baseline for this GAO study. In particular, (1) GAO lacked duplicating job workload data for six of the eight DPS areas, (2) GAO lacked population data on jobs performed under "Open Requisitions," and (3) GAO did not enforce the "job specification criteria" for the representative sample of jobs selected by DPS.

Section IV.

DPS and GPO Prices

A. "DPS Prices" Are Really "Best Estimates"

The GAO report should clearly state that the "DPS prices" for the GAO study are "estimated prices" and not "actual" prices. In fact, these prices are really DPS's "Best Price Estimates."

The GAO report claims that the study is a realistic comparison. GPO totally disagrees with this statement. In GPO's opinion, this is a "worst case scenario" for GPO due to the study's methodology favoring DPS.

The prior GAO price comparison study between GAO and DPS was based on "actual DPS prices." The current GAO project team participated in both studies. There are some noticeable differences between these two studies.

The first study, which used actual DPS prices, had DPS price estimates that included "rush charges" (e.g., 25 percent), "miscellaneous labor charges," and miscellaneous "preparation charges" that were additional charges added to the uniform price manual estimate.

The current study, which used estimated DPS prices, lacked similar DPS charges. This supports GPO's position that DPS used "Best Price Estimates." However, GPO should qualify this statement because we were not provided sufficient time, nor access, to review all DPS price estimates because: (1) GAO denied GPO access to this data until January 1995; (2) GAO stated that it could not release data on about 100 sample jobs that were not complete, as of yet; and (3) GAO indicated that additional, requested time needed for GPO to review the sample jobs was not available because of the report schedule.

The GPO understands that DPS paper prices are not stated in DPS's uniform pricing manual and vary by DPS facility. GPO understands that DPS paper prices used in the study were not verified by GAO to confirm the accuracy of the prices.

Suggestion To GAO

The GAO report should replace the term "DPS prices" with "DPS price estimates." The GAO report title, chart, and text should be changed to reflect this difference. The GAO report methodology should also disclose that certain price additions, such as "rush charges," noted in the first GAO price comparison study, were not added by DPS. Therefore, the prices are "DPS's best price estimates."

See comment 21.

See comment 22.

B. Unreasonable Price Differences for Jobs Not Researched by GAO Until GPO Reported Condition

GPO reviewed GAO's automated database of accepted sample jobs and conducted a "reasonableness test" to identify the "worst case" price comparisons. The purpose of this analysis was to identify instances where the price difference (i.e., Delta for sample job) was totally "unreasonable" so that further review could be taken. The following chart lists some of these worst cases which have price differences exceeding \$1,000 in DPS's favor.

List of GAO Sample Jobs With
 Large Dollar Variances

GAO ID #	DPS Estimated Price	GPO Actual Price	Price Difference (Delta)
NEA10-31-182	\$5,296.00	\$10,755.00	\$5,459.00
NWA07-31-182	3,338.75	7,075.00	3,736.25
SWA11-36-701	493.66	3,812.00	3,318.34
NCA03-31-008	1,545.20	3,290.00	1,744.80
SNA14-31-092	649.11	2,243.00	1,593.89
SNA14-31-126	517.28	1,908.00	1,309.72
SEA02-31-108E	222.22	1,559.00	1,336.78
WSA06-31-129	1,326.22	2,619.00	1,292.78
SWA10-31-119	3,459.94	4,606.00	1,146.06
SWA11-35-702	246.39	1,302.00	1,055.61
SWA08-31-089	421.40	1,466.00	1,044.60
NCA02-37-831	1,450.87	2,478.00	1,027.13
SNA14-31-168	386.79	1,409.00	1,022.21
Total	\$19,353.83	\$44,522.00	\$25,087.17

GPO has started a review of the GAO sample jobs. However, GPO's review has been limited because of GAO's initial denial of access to this sample data and GAO-imposed time constraints.

The first listed GAO sample job (NEA10-31-182) has the largest dollar price variance. GPO's actual price was \$10,755, which is \$5,459 more than DPS's estimated price of \$5,296.

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The GAO ID # (NEA10-31-182) indicates that the sample job was for the DPS Northeast Area (NEA), Plant 10, and the job was "Electrostatic Duplication" (Process Code "31").

The DPS Price Estimate indicated that this GAO sample job was priced as "Electrostatic Duplication" for a total of \$5,296.16.

This same GAO sample job was given to and procured by GPO at a cost of \$10,755 from a commercial contractor. This "printing job" was a Quality Level III printing product, with 4-color process, metallic ink, perfect binding, and negatives required.

The page and number of copies were about the only GAO "job specification criteria" that were identical between the GPO and DPS price estimates for this GAO sample job. DPS priced the job as electrostatic duplicating and inappropriately had GPO procure it as Quality Level III printing.

The GPO is currently reviewing other GAO sample jobs that have similar discrepancies that materially impact the reliability of GAO's results for this study.

In January 1995, GPO informed GAO about these "worst cases" which GAO acknowledged had not been reviewed as part of its quality control process for this study. GAO indicated that such action would now be taken.

Government Auditing Standards (GAS 6-59c.) requires that audit evidence be competent:

"Competence: To be competent, evidence should be valid and reliable. In evaluating the competence of evidence, the auditors should carefully consider whether reasons exist to doubt its validity or completeness. If so, the auditors should obtain additional evidence to reflect the situation in the report."

The GAO had reason to doubt the reliability and competence of the study's evidence for these and other sample jobs. Also, the GAO's controls to prevent bias were inadequate and ineffective.

GPO has given GAO about 100 questionable jobs where prices may be erroneous. GPO is confident that additional undetected errors exist in GAO's sample database used for statistical analysis and projections. GPO believes that the impact of these errors are material and would influence the outcome of GAO's study. This is another example where GAO did not always exercise due professional care when conducting this study.

See comment 23.

C. DPS Price Estimates Contain Material Errors Adversely Impacting GAO's Conclusions

The GPO has started a review of the GAO sample jobs and given GAO about 100 sample jobs that contain material pricing errors, or significant differences that are suspect and should be pursued by GAO before issuance of this final report.

The GPO's review of the GAO sample of about 1,500 jobs has been limited because of GAO's initial denial of access to this sample data and GAO-imposed time constraints. GPO still has not received data and documentation on about 100 GAO sample jobs; nor has GAO been allowed to review these jobs which GAO indicated may be included in its final analysis and results.

GPO believes that the correction of these discrepancies will materially change the results of GAO's results for this study.

The importance of correcting these errors in sample jobs is evident when reviewing the GAO sample jobs provided to GPO for review. The price differences are marginal for some categories of work as shown in the following chart.

Results of GAO Study
 for Sample Jobs
 (Unweighted)

	OPEN REQUISITIONS		NON-OPEN REQUISITIONS	
	Printing	Duplicating	Printing	Duplicating
GAO Sample Size	10	295	303	838
DPS Price	\$562	\$58,505	\$247,538	\$269,752
GPO Price	\$561	\$36,869	\$163,566	\$277,895
PRICE DIFFERENCE	\$1	\$21,636	\$83,972	\$8,143
RESULTS FAVOR:	GPO	GPO	GPO	DPS

Source of data in chart: The unweighted data in this chart was extracted from the GAO database of sample jobs. The chart does not include all jobs and related pricing data because GAO has not released all jobs to GPO.

The above chart indicates GAO's correction of discrepancies could have a material impact on GAO's overall results, particularly after weighting of the sample data.

Government Auditing Standards (GAS 7-59 & 7-60) place a burden on GAO to provide "accurate" evidence supporting its findings, as follows:

"Accuracy requires that the evidence presented be true and the findings be correctly portrayed. The need for accuracy is based on the need to assure readers that what is reported is credible and reliable. One inaccuracy in a report can cast doubt on the validity of an entire report and can divert attention from the substance of the report. Also, inaccurate reports can damage the credibility of the issuing audit organization and reduce the effectiveness of reports it issues." [Emphasis added]

"The report should include only information, findings, and conclusions that are supported by competent and relevant evidence in the auditor's workingpapers. That evidence should demonstrate the correctness and reasonableness of the matters reported. Correct portrayal means describing accurately the audit scope and methodology, and presenting findings and conclusions in a manner consistent with the scope of the audit." [Emphasis added]

The GPO has put GAO on notice several times that the evidence and conclusions in the draft audit report are inaccurate and corrective actions are needed before issuance of the final report. **Failure of GAO to take corrective action would be negligent under the circumstances.**

Suggestion

GAO should provide GPO with access to all sample jobs for this study and correct any discrepancies before issuance of GAO's final report.

In the event, GAO does not honor this request, the report should contain a statement that GAO denied the above request of GPO.

See comment 24.

D. GAO Denied GPO Equal Access to DPS Price Estimates and Study Results Until Matter Was Escalated Higher

Another GAO act of favoritism allowed DPS unequal access to the GAO sample data for the study. The DPS had complete access to (1) DPS's price estimates for the job sample used in the GAO study, and (2) to GPO's actual prices. GAO project officials denied GPO's repeated requests for access until the matter was appealed to a higher level at GAO.

On March 4, 1994, the Public Printer expressed GPO's concerns to the Comptroller General about the fairness of this price comparison study which was about to start. The Public Printer stated that:

"GAO refused GPO's request to examine the cost of each DPS sample job to ensure that the DPS's price includes all technical cost components, including freight. Last year in a similar [GAO] study the DPS was permitted by GAO to review GPO's estimates, and price adjustments were made for minor discrepancies [detected by DPS]."

Subsequently, other GPO officials repeatedly requested access to the DPS price estimates used in the study to no avail.

GAO also denied the Public Printer's request for access to the DPS price estimates at the exit conference and in a subsequent letter sent by the Public Printer to GAO on December 19, 1994. The subject GAO draft report was issued for comment on December 20, 1994.

On December 30, 1994, the Public Printer escalated the matter higher and GPO received access to most, but not all, of the DPS price estimates in January 1995. GPO has only had about 1 month to obtain and review documentation on 1,400 sample jobs.

In summary, GAO has not treated DPS and GPO equally during this study. The integrity of this study has been adversely impacted by GAO's favoritism towards DPS. Government Auditing Standards issued by the Comptroller General require GAO to be objective.

See comment 25.

E. Systemic Bias - DPS Estimates Did Not Include "Rush Charges" for Any Sample Jobs

The Congress requested that this study between DPS and GPO "reflect appropriate product quality and timeliness considerations" [Exhibit A, page 2]. GAO did not always consider timeliness in this price comparison.

The product "delivery date" by the customer dictates the available performance period for the work. The amount of time available to perform the work has a direct impact on cost. In general "rush orders" termed "hot jobs" in the printing industry cost more than regular orders. This cost is referred to as "rush charges."

"Rush charges" were not reflected in any of the DPS Job Price Estimates for GAO's Fiscal Year 1994 sample used for this GAO study. "Rush charges" are a compensatory charge used by GPO and DPS to recover increased cost for expedited delivery of printing and duplicating services.

GPO incurred and charged DOD for "rush jobs" used in the present GAO study. In comparison, the prior GAO price comparison study, which was based on a smaller DOD job sample, contained actual jobs performed by DPS. The DPS's actual cost for this prior study included "rush charges" (e.g., 25 percent addition to DPS Price Manual). The GAO project team was aware of this factor.

In some instances during this current GAO study, DPS specifically requested that GPO assess "rush charges" for the GAO sample jobs selected by DPS.

The "DPS price" used in the GAO study is "DPS's best estimate" and not reflective of actual costs. This contradicts GAO's statement that their report is "realistic" and does not have any "systemic bias." This is another example of a pattern of GAO favoritism towards DPS.

Suggestion To GAO

The GAO report should disclose that the DPS estimates were not realistic because "rush charges" for "rush orders" were missing from the DPS prices used in the study. As a result, DPS was given an unfair advantage over GPO which included rush costs in its prices. GAO should either allow GPO to remove the GPO rush surcharge from its prices, or require DPS to add "rush charges" to DPS's price estimates for those jobs that GPO had to rush also.

F. GPO Repricing of Jobs

As part of this study, GAO agreed to allow GPO to reprice the sample jobs using GPO's most reasonable procurement methods for the subject work. In most instances, GPO repriced the work using Term Contracts. The GAO methodology for the study restricted GPO's ability to use term contracts, particularly Direct-Deal Term Contracts, that would have resulted in lower costs to DOD customers.

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The draft report contained a section to report the results of GPO's repricing effort. However, the percentage of potential cost savings was not included in the draft report because data collection and analysis was not complete when the draft report was issued.

Suggestion

The GAO should inform GPO of the results of this repricing effort and include the results, as intended, in the final report.

Section V.

Report and Conclusions

A. GAO Study Should Reflect Impact of Subsequent DPS Price Increase of 18 Percent

The GPO believes that (1) DPS's 18.5 percent price increase for in-house work, effective October 1, 1994, and (2) DPS's increase of its surcharge from 1.83 percent to 5.5 percent for procured work are major subsequent events impacting the usefulness of this study.

For this report to be useful, the GAO has to determine the impact of these price increases on estimated DOD workload for Fiscal Year 1995. The report should reflect current conditions that decreased the usefulness of the GAO's analysis of Fiscal Year 1993 and 1994 workload data.

B. Draft GAO Report Released to GPO for Comment Before Field Work Was Complete

The GAO draft report was released to GPO for comment on December 20, 1994. Page 1 of the draft report contains the notation that:

"The data as presented in this draft report are subject to revision as we continue to collect and analyze data."

Subsequently, GAO indicated that the results of the study and the draft report have changed since issuance to GPO for comment.

GAO should not be releasing a report on a 1 1/2 year study before the field work (i.e., analysis and projections) is complete. GPO understands from GAO that the study was behind schedule because of DPS's difficulty locating "twin" sample jobs. This adversely impacted the project schedule through a ripple effect.

It is obvious to GPO that this study was "rushed" and "short-cuts" were taken by GAO in order to finish.

Additionally, GPO was verbally informed by GAO on February 3, 1995, that the study's conclusions had changed due to the detection and correction of an error in a sample job. As a result, the GAO draft report conclusions in the chart on page 6 changed due to weighting of the sample job price error. Specifically, the \$185 million in duplicating requisitions over \$500, the largest sample group, now favored GPO instead of DPS, as stated in GAO's draft report.

See comment 27.

See comment 28.

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The GPO also understands that "independent referencing" of this GAO draft report was not completed before issuance of the draft report. GPO considers this further evidence that due professional care was not always exercised during performance of this study.

The GAO should have never placed GPO in the position of responding to a draft report that is constantly changing because GAO is still conducting field work and analyzing the study's results. GPO understands that the timeliness of this audit report is important, however, quality should not materially suffer as a result.

Section VI.

Congressional Mandates

A. GPO Depository Library Program

The Depository Library Program distributes Government publications to Federal depositories in approximately 1,400 public, academic, law, and Federal agency libraries Nationwide. The program ensures that all members of the public have access to information produced by the Government.

Several of the sample jobs in the GAO study were selected by GPO for inclusion in the Depository Library Program. This is an added value, not measured by this GAO study, of sending work through GPO for commercial procurement. GPO screens all Federal documents for public interest that GPO prints or procures.

Suggestion To GAO

The GAO report should disclose that some of the sample jobs, intended to be produced in DPS plants, were identified through the GPO screening process for inclusion in the Depository Library Program. The program has 1,400 Nationwide depository libraries that disseminate Government information to the public. These DOD printing orders did not contain instructions that these documents, with public information value, be included in the Depository Library Program.

B. Small Disadvantaged Business Program

The GPO Small Disadvantaged Business (SDB) set-aside program was established in 1989 in compliance with the 1989 National Defense Authorization Act. Since then, GPO has worked with the U.S. Small Business Administration and several State minority development agencies to publicize this program.

This Government program provides social and economic benefits that are not considered in this GAO study. This set-aside program significantly increases costs to the Government for the printing and duplicating services, when compared to fully competitive procurements. Many of the sample jobs used in this study were procured under the SDB Program for DOD.

Suggestion To GAO

The GAO report should disclose that the SDB set-aside program exists for GPO procured work for DOD, but not for DPS in-house plant work. Furthermore, GPO officials indicated that this set-aside program results in significantly higher procurement costs, when compared to fully competitive procurements.

C. Recycled Paper

The GPO requires commercial contractors to use recycled paper for printing in accordance with Environmental Protection Agency (EPA) guidelines issued pursuant to the Resource Conservation and Recovery Act of 1976 and JCP Paper Specifications. Recycled paper is generally more expensive than virgin paper stock. This is an important factor not measured by GAO in this study.

Suggestion To GAO

The GAO report should disclose that GPO requires the use of recycled paper by GPO printing contractors. This environmentally preferable material increased GPO procurement costs for this study.

Section VII.

Other Comments on Report

A. List of Comments on GAO Draft Report

1. GPO Term Contracts (Page 35, paragraph 2, of GAO draft report)

The GPO suggests that GAO correct the statement: "GPO has approximately 700 term contracts." The 700 contracts were only for Central Office.

The GPO has 2,741 Term Contracts Nationwide as of February 1995 (2,501 Direct-Deal Term Contracts and 240 GPO-Placed Term Contracts).

2. Quick Turnaround (Page 6, paragraph 1, of GAO draft report)

In regard to GAO statement:

"However, whether suitable term contracts could be established [by GPO] to handle the DPS workload and satisfy specific customer needs (e.g., quick turnaround) at projected prices is uncertain."

The GAO should not raise readers' doubts about GPO's ability to satisfy DOD's turnaround requirements without proper analysis and supporting evidence. This is another example where the tone of this report was written to favor DPS.

The GAO did not examine the turnaround capability of GPO contracts. Furthermore, the study design hindered GPO's ability to use Direct-Deal Term Contracts, which are generally GPO's most economical and efficient means for providing such services to Federal customers. GPO can establish contracts to support DOD's printing and duplicating requirements for quick turnaround work and classified work.

The GAO should strike this unsupported, biased statement from the report.

See comment 29.

See comment 30.

3. Paper Price Increase (Page 11, paragraph 3, of GAO draft report)

The GPO suggests that this paragraph on (1) GPO price increases for Fiscal Year 1995, and (2) GPO and DPS paper price increases be separated into two paragraphs to better clarify the subjects.

The second paragraph should clearly indicate that paper prices will impact both parties' prices equally. The present wording suggests only the possibility that DPS paper prices will increase:

"Paper cost increases may also affect DPS's price, because its prices to customer[s] can be adjusted during the fiscal year to reflect paper price increases."

The GPO understands from GAO that DPS uses a rolling average cost to value paper stock purchased, and DPS's Uniform Price Manual does not set paper prices. GPO also understands that DPS adds 15 percent or 40 percent to the cost of the paper to establish paper prices for job estimating.

GAO should clearly indicate that a Nationwide price increase in paper should impact GPO and DPS paper prices about equally.

4. Scope and Methodology (Appendix III, of GAO draft report)

The GAO Methodology Section of the report does not disclose the methodology adequately, as discussed in our comments.

5. DPS Workload Information

The GAO report should provide readers with more detailed information on the population that has been studied by GAO. The report should provide information on DPS's workload, such as (1) the various types of printing and duplicating work performed, (2) distribution of workload (i.e., jobs and dollar value) by DPS area, (3) amount of actual classified work (i.e., jobs and dollar value), (4) DOD actual job turnaround requirements for jobs, and (5) data on the amount of "Open Requisitions" by DPS area, which GAO has equated to GPO Term Contracts.

6. DPS Fiscal Year 1995 Price Increase (Page 11, paragraph 2 of GAO draft report)

The GAO should correct the DPS price increase for Fiscal Year 1995. The "18 percent" increase should be "18.5 percent."

The following are GAO's comments on the Government Printing Office's (GPO) letter dated February 8, 1995.

GAO Comments

1. The points raised in GPO's transmittal letter are addressed in the Agency Comments and Our Evaluation section of this report.
2. In our April 1994 report, we noted that the emergence of various electronic technologies has blurred the distinction between printing and duplicating. We also stated that the legal and regulatory framework used to manage many aspects of government publishing has become outdated. For the purposes of our study, we chose to replicate DPS' fiscal year 1993 mix of work. Therefore, we selected our sample based on DPS' printing and duplicating processes, and have annotated table 1 to reflect this. The definitions for these services may differ from those established by the Joint Committee on Printing. See appendix II for additional details on our methodology.
3. As stated in our April report, we are aware of the limitations in DPS' accounting system. It is for this reason that we were unable to perform a meaningful cost comparison. We chose, with full agreement from our congressional requesters, to perform a strictly controlled pricing study. The requesters' staffs were briefed on the reasons for and the limitations of this pricing study.
4. GPO's statement that we did not assess the reliability of DOD workload data is not correct. When we initially received the database from DPS, we reorganized it so that we could select our fiscal year 1993 sample. We selected our sample and then asked DPS to find the actual fiscal year 1993 requisition that matched our selection. DPS was able to find the identical requisition from its printing facilities that matched our request in over 90 percent of the cases. Likewise, the dollar amounts of these requisitions substantially agreed with calculations we initially developed. The fact that we found requisition and dollar amounts that were accurate assured us that DPS' fiscal year 1993 database was reliable and accurate enough that we could base our work on it.
5. We agree with GPO's comments in this section and have made appropriate clarifications in the report.
6. This concern is addressed in the body of the report.

7. The data we requested from DPS did not include self-service duplicating. The only work included in our sample was work sent to DPS printing facilities on a requisition. We disagree with GPO that we should exclude all DPS requisitions with prices under \$25 because we believe this would not reflect DPS' actual work mix.
8. Appropriate changes have been made in the report text.
9. GPO's statement that our classification of DPS' workload was simplistic is incorrect. We chose to report our results in only four categories out of concern for the clarity of the report. Our analysis of the DPS database, however, entailed the examination of 37 printing and 32 duplicating strata, as described in our methodology.
10. As reported in our April 1994 report, the distinction between printing and duplicating has become blurred. We discussed quality level issues with our in-house printing staff, printing consultants, and with DPS and GPO officials. They told us that the differences between quality levels were not always readily distinguishable without the benefit of specialized inspection. Newer technology enables non-printing processes to produce print-quality work. Our post-analysis review showed about 7 percent of DPS requisitions listed as duplicating, which GPO believed required contractors to produce at quality level III ("good" quality as defined by GPO's Quality Assurance Through Attributes Program). We reviewed instances where GPO was concerned with quality level III selections and found no evidence of systemic bias attempts by DPS. Furthermore, in several instances, DPS plant personnel told us that their equipment could produce the quality necessary to satisfy the customer.
11. We disagree with GPO's statement that we allowed DPS to choose our sample, and we discuss this in the Agency Comments and Our Evaluation section of this report.
12. We disagree with GPO's statement that we allowed DPS to control the timing and means of delivering sample jobs to GPO. Again, we discuss this in the Agency Comments and Our Evaluation section of this report. We partially agree with GPO that DPS provided the source documentation for our analysis. GPO was also the source of some documentation. Where we thought there was a risk for bias, we attempted to verify both DPS and GPO source documentation.

13. We understand GPO's concerns about paper price increases; however, this is a situation that affected both GPO contractors and DPS during the course of our study. We have no evidence to either disagree or agree with GPO's concern that commercial vendor prices are more sensitive to paper price changes than are DPS' prices. Much like GPO contractors, DPS paper prices are not set on a nationwide basis, but are established individually by each DPS printing facility. DPS printing facilities charge according to a rolling average price, which is maintained for each type of paper in their inventory. The price level changes as paper purchases are added and as paper inventories are used.

14. We did not test our methodology prior to implementing the survey. We did take several steps, however, to assure ourselves that we could gather the information we needed. First, we prepared a methodology plan that was discussed extensively with GPO and DPS, and reviewed by our methodologists, printing professionals, and external consultants. Second, we designed our DCI based on the same characteristics as the DCI used in our last printing survey. We pretested the DCI with DPS plant officials and provided GPO with examples of our DCI. After these reviews, we made necessary changes to the forms and procedures that we believed were warranted on the basis of the information and comments we received.

15. We used the distribution of duplicating work processes within DPS' Western Area fiscal year 1993 workload to select a sample of duplicating requisitions from each of DPS' areas, except for the NCA. We obtained requisitions from DPS' Western Area fiscal year 1993 workload to determine how many products were included in the sample and summarized these products on our DCIs. These were sent to seven DPS areas, where plant officials nominated requisitions from incoming requests and priced and forwarded them to GPO for production following normal plant procedures. Thus, while the sampling criteria were derived from Western Area's workload, the actual fiscal year 1994 requisitions came from seven DPS areas and were produced by GPO contractors serving those areas. We also used the distribution of duplicating work processes within DPS' NCA fiscal year 1993 workload to select a sample of duplicating requisitions from that area.

16. When we sampled the duplicating requisitions, we obtained 26 open requisitions. These open requisitions represented an ongoing relationship between a DOD customer and a DPS plant; they were customer specific rather than product specific. In replicating these requisitions, the mix of products requested by the customer was more important than the type of

products. Thus, we needed DPS to nominate products from the same or a similar customer based upon the mix and volume of the customer's work. Because this process was customer driven, the open requisitions could not be assigned to areas other than those from which they were selected. We recognize that open requisitions exist in other DPS areas. Under our assumption that work in the Western Area was similar to work in the other areas, we simulated the Western Area open requisitions in six other areas. These open requisitions were the only requisitions that were, as GPO states, "cloned."

17. We disagree, as explained in the Agency Comments and Our Evaluation section of this report.

18. We disagree. In our post-analysis review of a subsample of items in our database, information obtained from GPO's database did not reveal any situations where GPO was allotted significantly less time than required by our product parameters. Our "outlier" review yielded similar results. In addition, it should be noted that our comments cited by GPO in its review of our database were for the use of the internal panel and were not a final determination by the panel as to whether an actual problem existed. For example, GPO cites sample NEA14-31-186 as having the comment "GPO received less than a 'fair share' time allotment." This meant that the number of days GPO was allowed to perform the work (in this case, 10 days) was lower than the number of days suggested on the fiscal year 1994 Job Request form (again in this case, over 10). For this particular requisition cited, GPO was allotted 10 days to produce 200 copies of a 1-page document. We did not provide comments for the panel's use if the number of days allowed for GPO to perform the work was greater than the number suggested because we did not view this as a situation where DPS was attempting to bias a selection.

19. See comment 10.

20. See comment 7.

21. DPS plant officials price their work using a standardized pricing schedule. The schedule contains a detailed listing of the various production processes—including items such as sundry labor and hand assembly. Contrary to GPO's statement, we noticed that charges for these processes were included in DPS sample prices. Regarding rush charges, DPS financial records show that less than 0.5 percent of its in-house costs are for rush work. Any omission of these charges in the price estimates would

therefore have had a negligible effect on our results. Because the DPS' prices were derived using the normal DPS pricing schedule, the prices would have been the actual prices charged by DPS if it had produced the work.

We did not provide GPO access to DPS' prices until receipt of final GPO invoice prices. This was done to prevent any potential GPO bias in manipulating final prices. However, once the final GPO invoice price was received, we provided GPO with all data upon request.

22. GPO's statement that we did not look at unreasonable price differences until GPO reported them is not correct. When we completed our data gathering, we began a post-analysis review to look at "outliers"—requisitions that exhibited a large percentage difference between DPS' and GPO's prices on both ends of the spectrum—and some errors were found on both DPS' and GPO's prices. Corrections were made to the data when appropriate.

23. See comment 21. In addition, GPO was provided all sample requisitions for which we had obtained final GPO invoice prices. Those sample jobs not provided to GPO did not have final GPO invoice prices and therefore were not included in our final analysis.

24. As stated above, we did deny GPO access to DPS' prices until receipt of final GPO invoice prices. This was done to prevent any potential GPO bias in manipulating the final price. However, once the final GPO invoice price was received, we provided GPO with all data upon request. Moreover, GPO received timely access to all of our workpapers as requested. For example, out of eleven items GPO requested at the initial meeting following the release of our draft report, we satisfied eight of them either that same day or the next, including our entire database. All remaining items were provided within a week.

25. We disagree. See our Agency Comments and Our Evaluation section.

26. This is addressed in the body of our report.

27. This is addressed in the body of our report.

28. Our effort to collect fiscal year 1994 sample requisitions from DPS ceased on September 30, 1994. However, because of a time lag in receiving final GPO invoice prices from contractors, our analysis could not be

completed. The report was drafted and sent to GPO and DPS for comment only after we had received enough responses and corresponding final GPO invoice prices to satisfy our standards.

29. Appropriate changes have been made in the report.
30. This issue is addressed in the body of the report.

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