Excellence Through the 80's

Report of the Comptroller General's Task Force on GAO Reports

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Task Force Members

Preface

In preparing this report, the task force followed several of our own recommendations about communicating better. In particular, we used

- writer/editors and graphics designers as integral members of the team that prepared the report,
- extensive graphics,
- a simple cover, with a descriptive (non-sensational) title as the most prominent element, and
- a typeset, three column format to shorten the line length and improve readability.

GAO does not now have the capacity to routinely produce reports this way. We lack, among other things, proper contractual arrangements and enough writer/editors, graphics personnel, and designers. To prepare this report, we needed special assistance from the staff of the Office of Administrative and Publishing Services (OAPS). They worked with us for long hours under very tight dead-lines to write, rewrite, edit, design, typeset, and print this report. We are very grateful for their interest, enthusiasm, and expertise.

In addition, we are indebted to the many secretaries who typed and retyped this document on nights and weekends. Without their diligence and care, we would not have been able to meet our tight deadlines.

Executive Summary

The Comptroller General asked the Task Force on Reports to examine the *quality, communication,* and *timeliness* of GAO products and to make recommendations for improvement. We found much acceptable in GAO's present reporting. Nevertheless — given the Office's expectations for excellence — too much falls below GAO standards and not enough appears to be exemplary. Accordingly, we make recommendations for improvements in each of these three areas.

In response to a further charge from the Comptroller General, we also recommend adopting a *productivity* measurement and improvement program.

Quality

Many present report weaknesses derive from GAO's emphasis on report review — quality control — rather than building quality into jobs during planning and implementation —quality assurance. Moreover, the specialized skills necessary to do our work in the 1980's are not adequately available to job managers. We propose improving skill levels and moving toward an integrated team approach for job planning and execution, with accompanying reductions in report review.

Execute Jobs Using an Integrated Team Approach

As a long term goal, GAO should plan and execute jobs with teams of generalists and functional and subject specialists in operating positions throughout the job. This means locating design and methodology experts as well as staff with statistics, automated data processing (ADP), economics, and other basic evaluation skills in the divisions (whenever possible) rather than as advisors to them. To begin moving toward this goal, we recommend immediately:
- Adopting a *design team approach* for job scoping within each division, with centralized support as needed; and
- *Setting standards* and establishing GAO-wide *training programs for generalist* evaluators so they have the necessary levels of quantitative and other functional skills.

Strengthen Quality Assurance

Only quality assurance can "build quality in" during job planning and execution, rather than trying to fix problems during draft review. The task force recommends clarification of quality standards — particularly for fact sheets and briefing papers — and a number of quality assurance improvements:

Story Conference.

Require that division staff and management meet to agree on what the audit has shown and what the report will say, before most jobs leave implementation.

Agency Comments,Peer Reviews, and Referencing.

Expand the use of these techniques to assure that our reports are correct and fair. Clarify certain policies and procedures regarding when and how each is to be used.

Devolve and Regularize Clearance Authority

With the strengthened planning and execution that can come from integrated teams and other recommended quality assurance improvements, the GAO should, over time, decrease quality control by moving release authority for most products to division director and associate director levels.

In particular, we recommend that division directors release most GAO

reports, and that associate directors release reports to agencies, reports to Members of Congress without recommendations, and most other types of GAO products (e.g., fact sheets). In both cases, there should be prior approval of a knowledgeable "cold reader" outside the report release authority — the Assistant Comptroller General (ACG) for Planning and Reporting for division director releases, the comparable division counterpart to the ACG for associate director releases, or another knowledgeable GAO manager.

Communication

Excellent audit work demands excellent communication. But current report design and printing quality do not support the messages we have to convey. Better writing and presentation — by integrating writer/editors as evaluation team members and using more graphics — will help us communicate more effectively. We also recommend improvements in layout and design and in printing quality.

Develop Design and Printing Standards

GAO lacks quality standards for design and printing. Therefore, the task force recommends *adopting a design standards manual* and *reviewing our printing contract* to ensure quality in report production.

Relocate Publishing to Management Level

Given the number of reports GAO produces, we must consider publishing a primary function. Yet, many presentation and procedural aspects of publishing currently receive inadequate attention because we lack a management "focal point" and advocate for communication and printing quality. We recommend

establishing such a senior position, with responsibilities that include
- Developing a comprehensive communications policy,
- Developing the design standards manual and printing standards discussed above,
- Recruiting publishing professionals,
- Expanding the use of writer/editors and graphics artists, and
- Encouraging development and use of new communications ideas and techniques.

Straighten Out GAO's "Product Line"

The task force makes specific recommendations regarding the vehicles GAO uses to communicate. In particular, we suggest that all GAO reports of job results be covered in "GAO blue," which has become the hallmark of our products. In addition, we recommend that standards be defined for briefing papers and fact sheets so they can be used more confidently as formal attributable responses by GAO to congressional needs for quick information.

Timeliness

GAO jobs too often take longer than acceptable. Indeed, they usually significantly exceed our own planned timeframes. We identified many apparent causes, staff overload and writing problems among them. Whatever the cause, however, the impact generally presents itself during report writing and clearance.

AMPS and PPMA, together, provide a potentially strong framework for assuring timely job performance (as

well as encouraging quality assurance). They should be updated and issued as a coordinated planning and tracking system, using common terms and decision points, and their potential benefits should be stressed.

The story conference (discussed under Quality, above) is equally valuable as a timeliness tool. The task force expects these conferences, by requiring agreement on basic messages before drafting, will prevent some repeated redrafting which results from audit inadequacies and/or disagreements on audit results. Additionally, they provide a convenient forum to add resources (e.g., writers) where special presentation problems can be anticipated.

Develop Job Timeframe Guidelines

The task force also recommends that each division establish timeframe guidelines for primary products and set individual job budgets using them as benchmarks. The guidelines budgets would help set expectations regarding acceptable timeframes and provide the basis for time overrun alerts.

Establish Staff Loading Guidelines

Timeliness sometimes suffers because headquarters managers undertake too many jobs. To help prevent this, we recommend division guidelines for the number of assignments managers (GS 14's and GS 15's, in particular) can handle without overloads.

Productivity

GAO will be striving to improve quality and timeliness during predictably austere years. *A productivity measurement and improvement program is necessary* to help us do more with fewer resources. We recommend establishing a single organization to implement a program monitoring a *market basket* of performance indicators — efficiency, quality and timeliness — with improvement actions at the division level.

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Striving for Excellence

GAO has a proud heritage. We pride ourselves on striving for excellence in our work. We pride ourselves on the commitment and quality of our staff, and on our continuing contributions to efficient, effective, and honest government. We pride ourselves on our reputation.

Mindful of this GAO commitment and reputation, the new Comptroller General asked the task force to review the quality, timeliness, and communication of GAO's reports. This document reports our deliberations and recommendations.

Phase I

The Comptroller General established the task force in April 1982 to find ways to shorten the time between completing an audit and sending the report draft to final processing. Phase I ended when we presented our initial findings, conclusions, and options to him informally in May 1982.

Phase II

Phase II of our work began when the Comptroller General asked us to extend our examination of the time-liness of GAO reports and broaden the scope of our investigation into related issues: (1) product quality (including the methodologies used on jobs), (2) the content of our products and how we might better communicate the

results of our work, and (3) productivity, and whether a program to measure and improve it would be appropriate for GAO.

This report presents the results of these efforts. The methodology used is summarized briefly on pages 2 and 3. Detailed discussion of the methods used and the data collected appears in the second volume, the Technical Report, for those wishing additional technical information.

This study is a management analysis of the needs of GAO rather than a formal GAO evaluation or audit. We used the combined experience of the task force members to evaluate and supplement the data and to develop recommendations. Those recommendations are, in some cases, far reaching; we believe they will enable GAO to move confidently into the 1980's.

Meeting New Challenges

What does "moving into the 1980's" imply? GAO staff will need new skills to operate effectively in increasingly technical and automated environ-ments. And, given the growing complexity of government services and operations, we will need deeper understandings of specific program and subject areas. The task force recognized that new levels of commitment to doing exemplary work are also essential if, indeed, GAO is to continue to serve as a "model" to

other agencies. Throughout our deliberations, we recognized the value of GAO's carefully developed methods for performing and documenting assignments. A solid foundation on which to build already exists.

Themes

We observed four recurring themes as we carried out our work. They structure this report.

Theme I: Product Quality Should Be Exemplary

In general, we are doing many things well — indeed, better than many other organizations. This is the perception of both internal and external sources. Too little of our work, however, is exemplary, and too large a proportion of it fails to meet our standards for acceptability. We believe GAO should strive to be much more than acceptable, especially in areas central to our purpose. For GAO, "acceptable" has never been good enough. We must strive to be exemplary — to build a better reputation rather than rest on past merit.

Theme II: Highly Skilled Staff is Required to Produce Excellent Products

In the 1980's, analyzing and evaluating government programs and functions requires that personnel — including "generalists" — have a set of

basic quantitative, design, and analytic skills, as well as familiarity with computer system operations. These skills are in addition to essential writing capabilities, solid foundations in one or more subject areas, and basic GAO audit techniques. The definition of skill requirements for the general evaluator and/or manager, thus, has changed with the times. GAO staff needs the right skills mixture if we are to produce excellent products.

Theme III: Management Must Provide the Tools and Incentives

Staff skills cannot translate into product excellence without management and procedural support. In particular, we must: (1) emphasize procedures and techniques necessary to develop quality products, rather than investing heavily in attempts to identify and resolve problems after the fact, and (2) create standards and incentives that support staff attempts to produce quality products. Thus, we need a management structure and organizational tools to help staff anticipate and meet the demands that will be placed upon GAO. In short, management must provide the environment, tools, training, guidance, and incentives that will foster excellence.

Theme IV: We Must Communicate Well

The communication of the results of our work is one of our most important jobs and we must be able to do it effectively. The excellent performance of a job is no longer sufficient; excellent presentation of the results must accompany it, if our work is to realize its potential.

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The reader will recognize these four themes throughout the report — in Quality, Timeliness, and Communications, as well as in Productivity.

Gathering and Reviewing Information

After collecting information on the full range of issues affecting GAO reports, we analyzed it, sifted it using our best judgment, and developed the findings, conclusions, and recommendations contained in this report. Our data collection and analysis procedures included (1) interviews, (2) report reviews, (3) report reviews by the Offices of General Counsel and Policy, (4) detailed study of long jobs, (5) a timeliness profile analysis, (6) a productivity analysis, and (7) a literature/history search. This box is intended to suggest the range of people and organizations who helped us understand these complex issues.

Interviews

The Congress, Our Primary Customer.
We met with 28 staff members from 14 congressional committees to learn their views on our:
- Methodologies,
- Report quality,
- Timeliness, and
- Communication to the Congress.

Outside Organizations.
Our conversations with officials of more than 50 other organizations covered our: (1) methodologies in auditing and evaluating, (2) report quality, (3) report formats, and (4) communication.
- 10 Executive Branch agencies whose operations we audit,
- 5 Inspectors General's offices,
- 6 consulting firms and 5 research organizations that do work similar to ours,
- 22 organizations with experts in printing, design, packaging, and editing, and
- 3 congressional agencies: the Congressional Budget Office, the Congressional Research Service, and the Office of Technology Assessment.

GAO Officials.
We spoke with over 50 staff members: specialists who assist evaluators on jobs, division directors, regional managers, and middle level managers. We learned their views on GAO's current work, including:
- The processes they use to develop their reports (what does and does not work),
- Product quality, and
- Timeliness constraints they face.

Report Reviews

To assess the current quality of reports, we randomly selected a sample (stratified by division) of 112 reports issued to the Congress, its committees, its members, or to agency heads in the year ending 30 June 1982. Task force members read these reports and scored them (with ratings from 1 to 5) on 10 specific quality criteria ranging from written expression and appropriate methodology to logical adequacy and proper balance. From these scores, we developed data on the quality of GAO reports and what areas need correction. To determine whether the reports

had identifiable patterns of weakness, we compared our report review results with complaints we collected from outside sources or heard during the interviews.

Job Quality Subsample.

We selected 25 of the 112 jobs as being representative of weak methodology, support, balance, or writing, or because the report merited special study. We examined their job files and master report folders for agency comments, referencing, and time pressures or constraints that might have affected the report.

Methodology Subsample.

To check the validity of our design and methodology for ratings, we asked the Institute for Program Evaluation (IPE) to review a selection of 10 each of the strongest and weakest reports from the original batch of 112. They examined methodology, evidence, conclusions, and recommendations, suggesting alternative methodologies, where appropriate.

Offices of General Counsel and Policy Report Review

To further check the validity of our ratings, these Offices agreed to use our criteria to score the 21 reports that came to each of them for final processing during a 4-week period.

Sample of Long Jobs

The task force probed timeliness problems by selecting from each of 10 divisions (we excluded IPE because it had produced very few reports during this time period), those 7 jobs that took the longest time to complete during the year ending 30 June 1982. In our detailed analyses of these 70 jobs — and of the 25 jobs chosen in Phase I — we reviewed the job file and master report folders to learn why they had taken so long.

Timeliness Profile

To understand the time it takes to produce reports for the Congress, its committees and members, and agencies, we examined AMPS data for all jobs started, in process, or completed over the past few years. We used the data to analyze estimated and actual job schedules, overruns, and closeouts, and to identify characteristics of long jobs.

Productivity Analysis

We examined the concept of productivity, paying particular attention to:

■ Application of productivity measurement to organizations similar to GAO,
■ Whether the concept appears appropriate for GAO, and
■ Alternative systems that might suit GAO.

Literature/History Search

We reviewed studies of GAO's operations by external groups, internal groups and task forces, and by the Congress. Thus, we uncovered (1) suggestions concerning productivity and product quality, content, and timeliness; (2) actions taken; and (3) results. In addition, we analyzed GAO manuals and training programs to familiarize ourselves with current policies and procedures and assess whether they require changes to meet the Office's future needs.

Building Quality In

Emphasis on "quality" — both of products developed and job performance — is not new at GAO. Concern with quality products and job performance is manifest throughout many of the Office's directives and publications and has been the focus of numerous past studies. One of the task force's major purposes was to examine the level of quality in selected GAO products and the practices and procedures which influence that level.

We found that, although most GAO reports are at least minimally acceptable, too many are unacceptable. And too few are "exemplary," i.e., substantially exceed minimum standards for issuance. This finding was so striking that it led to one of the major themes of our work: reports and products central to the Office's mission must be consistently excellent. In an organization proud of its important mission and committed to excellence, being "merely acceptable" is simply unacceptable.

Against this background, we examined quality-related practices and procedures and developed recommendations for modifying them where necessary. We believe adoption of these recommendations will help build in quality as products are developed.

Standards for Quality at GAO

GAO's institutional commitment to quality appears in the contents of the policy manuals which guide report writing and job performance. Each document, including the Report Manual, the General Policy Manual, Standards for Audit of Governmental Organizations, Programs, Activities, and Functions (the "Yellow Book"), and the Project Manual, includes statements and guidelines on quality. These guidelines are relatively complete for reports; report presentation quality standards are stated directly and concisely as rules or requirements in the Report Manual. But for other products, the standards of quality are increasingly sketchy, until they become virtually non-existent for briefing papers and fact sheets.

Standards of quality for job performance are found throughout the Project Manual, presented as procedures to be followed on the job, and are not concisely stated. As an organization, then, we lack easily used and accessible standards for quality of job performance and quality of products other than reports.

The Quality of Recent GAO Reports

According to the comments of internal, external, and published sources of criticism of GAO reports, our products mostly receive mixed, but generally adequate, marks. Outsiders whom we interviewed generally perceived our work as adequate or good, but internal studies over the past several years have identified various problems.

Concerns Expressed by Outsiders

Not surprisingly, the concerns expressed by outsiders reflect the orientation of the groups they represent. The overall reaction from the Hill was good. About two-thirds of the comments were positive, but the remainder were significant: more specifics are needed in the reports, GAO is "co-opted" by agency comments, the contents of the reports are watered down or unduly cautious. Timeliness, as addressed in Chapter 3 of this report, is still the Hill's major concern.*

The Executive Departments also expressed generally positive feelings and some concerns about GAO reports. Specifically, they wanted better communication between the GAO study team and the audited agency. Further, they were concerned about the "balance" (e.g., fairness, presence of inaccuracies by omission of detail, etc.) in reports.

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*For additional detail, see the Technical Report, Volume II of this report.

CRITERIA OF QUALITY FOR REPORTS

■ Report/Product is Effectively Written
■ Appearance of Report/Product is Professional
■ Product Presents a Substantial Message
■ Product Addresses the "Right" Question
■ Product Defines Objective, Scope, and Methodology Clearly & Completely
■ Methodology is Appropriate to Job and Conclusions
■ Support for Findings is Adequate in Terms of Both Evidence & Logic
■ Product Displays Adequate Balance & Understanding of the Areas/Activities Covered by the Report
■ "Solutions" to the Problem are Adequate
■ Product is Both Useful and Relevant to the Readers, is Timely and Practical

Figure 1

Internal Studies of Report and Job Quality

GAO studies in recent years have generally identified complaints or dissatisfactions about product quality (such as the "post card survey" performed by the Office of Congressional Relations, published in March 1981) or about our quality assurance procedures (such as the Study of Referencing Policies and Practices by the Office of Internal Review, February 1982).

Other internal studies have focused on the adequacy and sophistication of our job designs and methodologies. Because of this concern, the Institute for Program Evaluation was created in 1980; subsequently, GAO's awareness of the importance of careful job design and use of proper methodologies has been heightened. However, no study has thoroughly examined the quality of GAO reports in all facets.

Criteria of Quality Developed for Review of Reports

As part of its efforts, therefore, the task force tried to test complaints levied against GAO products and obtain a more systematic rating of

report quality than has been performed to date. The lack of a single definition of the quality standards to be met in reports and products led the members to develop and use a set of criteria embodying our own standards of quality to evaluate and rate recent GAO reports. The criteria, which are shown in figure 1, were developed after study and compilation of concerns, complaints, and dissatisfactions about GAO reports from various published sources, internal studies, and in communications with the Hill, which supplemented the task force members' experience.

The criteria were combed from the contents and general guidelines of the policy manuals to assure their completeness. Finally, before their use, they were further supplemented by a list of "considerations" and details taken from GAO's policy manuals which would interpret and define each criterion and prompt the task force member rating the report to consider all important aspects when applying it. They formed a useful mechanism that task force members could apply to address the question of report quality with a roughly standardized measure.*

Reports Review by Task Force Members

Using the criteria in figure 1, the task force rated 112 reports randomly selected from Group I and II reports issued during the year ending 30 June 1982. The sample was stratified by division.

The clear majority of reports was rated "acceptable" or better. Based on a scale of 1 to 5** for each criterion, figure 2 shows that on each of 9 of the 10 criteria, the proportion of reports falling into the acceptable or better category was between 76 and 90 percent. Between 18 and 35 percent of the reports (depending on the criterion) was rated above standard (i.e., "4") or exemplary ("5"). In analyzing the ratings, the task force focused on individual criteria rather than on total scores for each report since the criteria were not weighted to reflect the relative importance, and aggregated totals could be misleading.

Conversely, in each category, between 17 and 23 percent of the reports were below standard (received a rating of "1" or "2"). And approximately 12 percent of the reports were rated below standard in more than one category. Individual criteria were compared against each other to identify areas which consistently received low or higher ratings. All the ratings were close, indicating no specific pattern of weakness and no special problem areas on which we should focus.

We had a mixed reaction to these statistics: pleasure that, having applied what we considered to be stringent standards, a large proportion of our work was of adequate quality, but substantial concern about both the large percentage which fell below our

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*The full listing of dissatisfactions and considerations for each criterion can be found in the Technical Report.

**"1" equated to "embarrassing, fails to meet standards"; "3" means "acceptable and meets GAO standards for issuance"; "5" means "exemplary," etc.

significant later when we discuss devolving report release authority to the divisions from the Comptroller General.

Quality of Reports by Requestor

We examined the sample of reports to determine whether self-initiated work tends to be of higher quality than that prepared in response to congressional requests. Our review of four criteria — substantial message, appropriateness of methodology, adequacy of support,

standards and the small percentage which could be called outstanding.

Additional useful information about the quality of our reports—and what influences it—came from reviewing the relationships between our ratings and other report characteristics. Three such relationships are highlighted here:

Quality of Reports by Signer

Approximately equal proportions of the reports signed by the Comptroller General and the division directors were of acceptable quality or better (see figure 3). However, more of the reports signed by the Comptroller General were rated *above standard* than those signed by the division directors (32 percent vs. 18 percent). Reports signed by the Comptroller General may differ from those signed by division directors along other variables which could affect the ratings; in particular, they more often include ones which were complex, costly, controversial, or with broad conclusions and recommendations. Thus, almost by definition, the Comptroller General will sign reports which will receive higher ratings on some of our criteria. This data nevertheless brings into question the speculation by some at GAO that division director-signed reports are of less quality than reports signed by the Comptroller General. This becomes

and adequacy of solutions — found no appreciable difference, by requestor, in reports rated adequate or above, as shown in figure 4. However, a larger proportion of the self-initiated work was rated above standard ("4") or exemplary ("5") in all four areas than were the congressionally-requested reports.

Presence or Absence of Agency Comments
We also considered the relationship between obtaining agency comments on reports and report quality, particularly in the ratings for balance of presentation. Although a report need not have obtained agency comments to be judged adequate in overall rating, it was more likely to be exemplary if it had obtained them. (See figure 5.) Adequacy of balance (rating of 3 or more), in particular, was not significantly different in reports when agency comments were obtained than when they were not obtained. Here again, though, when comments were obtained, more reports which had agency comments were found to be above standard (43 percent to 26 percent). This pattern of ratings held true for other criteria thought to be affected by agency comments: adequacy of solutions, perceived timeliness and utility, and overall score.

IPE's Review of Selected Reports
To support our review and to clarify our ratings on selected criteria (specifically, appropriateness of methodology, clarity of methodology statement, adequacy of support for findings, and adequacy of solutions), a group of 10 of the lowest and 10 of the highest rated reports was reviewed by IPE staff. Without knowing how we had rated the reports, the IPE reviewers were asked to comment on the soundness of the methodology employed and on its adequacy to support the central message, conclusions, and recommendations of the report. Where alternative methodologies seemed particularly appropriate, these were to be identified. We wanted their review

RATINGS OF REPORTS BY REQUESTOR FOR FOUR CRITERIA

ADEQUATE AND BETTER
(RATED "3" OR BETTER)

	SELF-INITIATED	CONGRESSIONAL REQUEST
SUBSTANTIVE MESSAGE	84%	77%
APPROPRIATENESS OF METHODOLOGY	95%	76%
ADEQUACY OF SUPPORT	72%	76%
ADEQUACY OF SOLUTIONS	71%	74%

ABOVE STANDARD AND EXEMPLARY
(RATED "4" OR "5")

	SELF-INITIATED	CONGRESSIONAL REQUEST
SUBSTANTIVE MESSAGE	35%	25%
APPROPRIATENESS OF METHODOLOGY	22%	14%
ADEQUACY OF SUPPORT	32%	17%
ADEQUACY OF SOLUTIONS	28%	15%

Figure 4

because of (1) the crucial role design and methodology play in quality, (2) pertinent criticisms previously received from the Outside Reader Panel,* and (3) the need to supplement the "generalist manager" orientation of the task force with specific expertise.

In almost every instance, IPE's comments agreed with our ratings and comments; that is, the reports which had been judged as methodologically good by the task force members received similar comments from IPE experts, and vice versa, and most often for the same reasons. This corroborated our ratings in most cases. Additionally, the IPE memos provided valuable detail about methods and choices and, in some cases, identified alternatives which

might have enhanced the design and execution of the studies if they had been available.

The IPE subsample results—taken with the methodology ratings and the comments of external and internal specialists—showed that generalist managers and experts can agree on what are serious methodological and design problems and what are not.

*In December 1979 the Comptroller General convened a panel of methods consultants to review GAO's evaluation methodologies and determine whether improvements were needed. We refer to this group as the "Outside Reader Panel" since its members were experts affiliated at the time with organizations other than GAO.

Report Review for Impact of Quality-Related Procedures

In a further study of 25 of the 112 reports, chosen because they justified further examination (in some cases because they received particularly low scores on certain criteria), the task force tried to associate particular ratings with selected procedures used or omitted in job performance and report preparation. In those 25, we analyzed the use of referencing, agency comments, the division's report review process, and the existence of any documented time pressures.

We found no major problems in these areas which would correlate with the apparent report weaknesses. Nevertheless, we noted that full referencing occurred in only 15 of the cases. Since referencing raised many points for clarification when it did occur, some of us were concerned about the consequence of this omission.

Review of an Operational Report Sample by OP and OGC

At our request, the Office of Policy (OP) and the Office of the General Counsel (OGC) rated current reports being reviewed in their offices for final sign-off during a four week period.

Each office reviewed approximately 25 reports using the task force's criteria and rating forms. Analysis of the forms showed close similarity between the ratings given by task force members and the OP and OGC reviewers. As in the sample of 112 reports, no individual criterion was identified as being significantly weaker than any other, and no patterns of special problems appeared. These results by individuals with experience and training in report review seemed to support our findings.

Quality-Related Procedures

In examining the processes GAO uses to control and assure product quality, we made a critical distinction between *quality control* and *quality assurance*. We believe this distinction is valuable and should be retained and used in the Office.

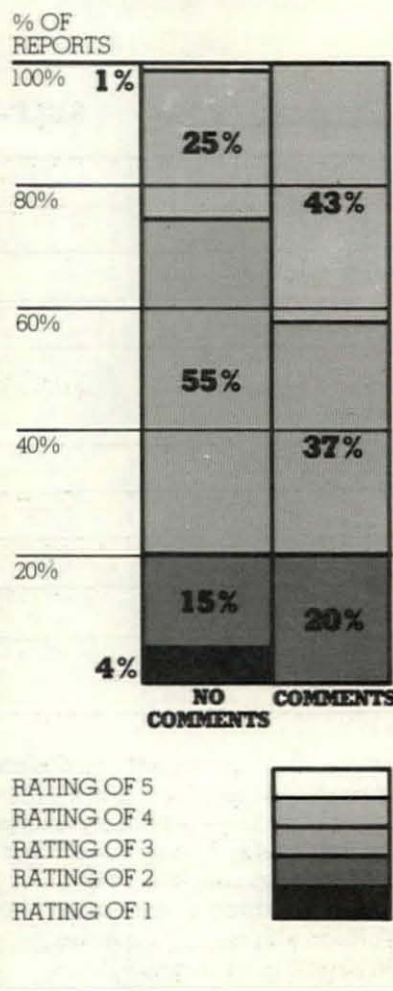**RATINGS ON BALANCE BY PRESENCE OF AGENCY COMMENTS**

% OF REPORTS

NO COMMENTS: 1%, 25%, 55%, 15%, 4%

COMMENTS: 43%, 37%, 20%

RATING OF 5
RATING OF 4
RATING OF 3
RATING OF 2
RATING OF 1

Figure 5

Quality Control

"Quality control" is the traditional GAO approach to ensuring quality in products. The task force uses the term to refer to procedures and checkpoints that verify quality while reports are being written and after drafts are completed, and that prevent release of unacceptable products. Quality control generally occurs at the end of assignments, once there is a product (albeit a draft) to review. Typically, at GAO it is chain-of-command report review.

Quality Assurance

In contrast, "quality assurance" refers to those procedures done before report development to assure that the report, when written, will be of high quality. These activities are inherent parts of job performance, and involve management decisions in scoping, planning, staffing, and implementation—all of which affect the ultimate performance of the job.

A Crucial Distinction

The distinction between quality control and quality assurance is crucial. It influenced the task force's deliberations and findings, and it underlies the theme of our recommendations — that "quality must be built in." This implies particular attention to quality *assurance*, for quality *control* cannot build quality in — it can only prevent the release of unacceptably low quality products.

Principal Responsibility for Quality Assurance and Control

The principal responsibility for quality assurance throughout a job rests with the programming division and with regional management. The group director is the key link in the quality assurance and quality control system. He or she is the only person close enough to the job to have in depth and continuing contact, yet senior enough to be expected to manage job products with perspective. The group director and evaluator-in-charge (EIC) are responsible for the primary quality assurance procedures used in assignments: workpaper review and day-to-day supervision of staff.

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During Phase I, we learned that the group director is generally overloaded. Besides the consequences for timeliness, this harms GAO's quality assurance and quality control. We believe improved quality assurance procedures may necessitate reduction or redistribution of group director workloads.

Quality Assurance Through PPMA

The Project Planning and Management Approach (PPMA) is the cornerstone of GAO's quality assurance system. Having reviewed the system, we believe PPMA includes the steps that, if followed, can and will assure the building in of quality (within practical limitations).

Thus, we believe PPMA is an extremely valuable tool which should be strengthened and enforced. It is a structured yet flexible, results-oriented way of planning and managing projects. It guides one through phases and decision steps ("go/no go" points) which provide important opportunities—when used—to determine whether and how the assignment should be continued or modified, and when products should be prepared. The PPMA process can be the principal means for involving middle and top management in job quality and job performance.

Go/No Go Decision Points

The task force found, in this regard, that all GAO divisions make critical go/no go decisions at the beginning of the proposal, scoping, planning, and implementation phases. In the year ending 30 June 1982, 240 jobs were terminated before completion. Of those, 11 percent were ended at milestone 1 ("Assignment Started"), 7 percent at milestone 2 ("Scoping Completed"), and 66 percent at milestone 3 ("Planning/Survey Completed"); relatively few jobs were terminated at other times. The documentation used in making these decisions varies by division and by job size and complexity, as might be

expected. Top and middle management (associate directors, division directors, and, more rarely, an ACG) participate in these go/no go decisions, which occur at the beginning of major job phases. However, rarely does management appear to take part in decision making or monitoring at other planning or implementation points in a job, unless a problem has arisen.

The Survey Phase

Given PPMA's importance, we were concerned to find that 41 percent of the jobs completed in the year ending 30 June 1982 lacked a survey phase (see figure 6) and thus bypassed this part of the management decision process. This is not limited to any one type of job. Although a survey phase may not be warranted in all jobs, we

think the proportion without surveys is excessive. In particular, the task force was concerned about the absence of guidelines or criteria for when this important aspect of quality assurance should be skipped.

The Story Conference

The task force identified several other gaps in the current quality assurance process. There was concern about the absence of a clear procedure for deciding on report content before the beginning of report drafting. In interviews with GAO's sister agencies* in the Legislative branch, and with organizations which produce like products, we found the story

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Congressional Research Service, Office of Technology Assessment, and Congressional Budget Office.

JOBS WITH AND WITHOUT SURVEY PHASES
12 MONTHS ENDING 6-30-82

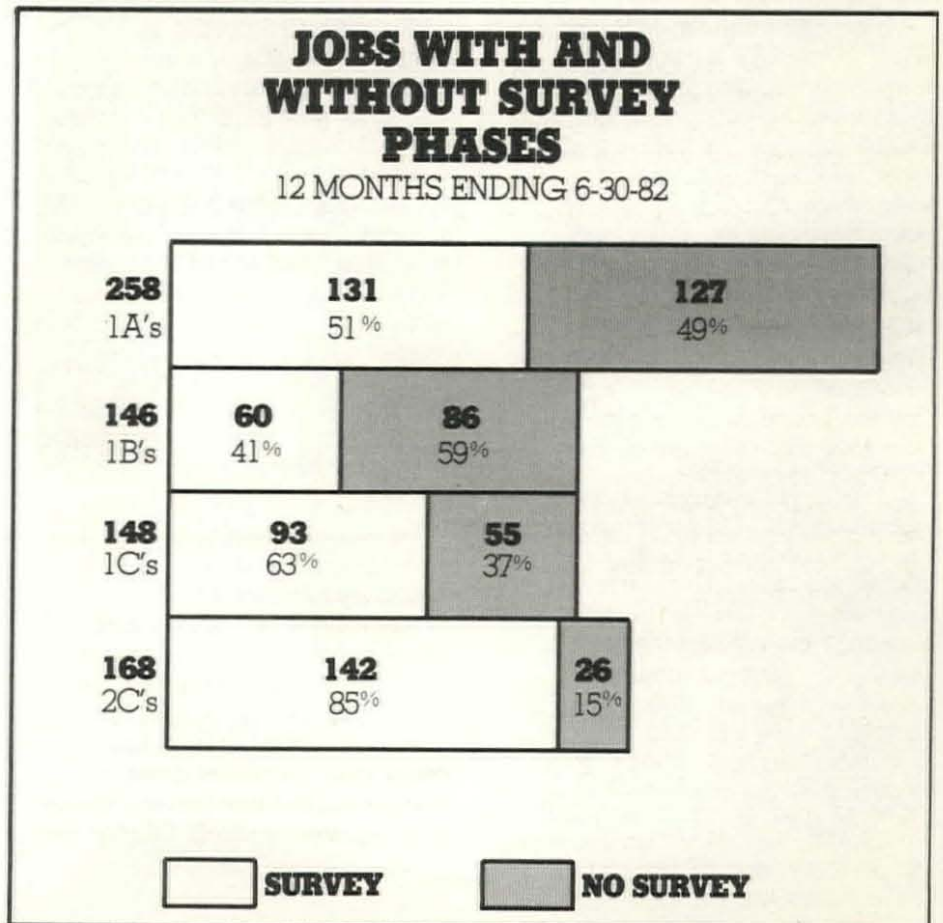|		
258 1A's	**131** 51%	**127** 49%
146 1B's	**60** 41%	**86** 59%
148 1C's	**93** 63%	**55** 37%
168 2C's	**142** 85%	**26** 15%

☐ **SURVEY** ▨ **NO SURVEY**

Figure 6

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conference to be an important technique for reviewing the strength and value of job findings and conclusions, and for determining the best reporting means.

Phase I identified this gap in reaching agreement on a report's content and thrust—before writing—as a major cause of timeliness problems. The task force believes that the story conference also can provide a mechanism for resolving differences and building consensus on what the audit told us and what our report objectives and approach should be. Without such a decision, time is wasted writing and reviewing predictably unsatisfactory report drafts. As discussed in more detail later in this chapter, key decision makers involved in quality control (reviewing the report) should reach substantial agreement before the writing begins.

Communication with Agencies

We were also concerned to find a lack of management involvement (from the group director level and up) in entrance and exit conferences with audited agencies. We believe that agency conferences are not generally being effectively used as a quality assurance mechanism. They can provide (1) feedback on the accuracy and validity of our work, (2) help to agencies in understanding and implementing our recommendations, and (3) open communication channels between agency and GAO staffs.

Involvement of Specialists

Finally, in studying quality assurance procedures, we were concerned about the very limited use of internal and external specialists. This is not surprising since GAO lacks clear guidelines and criteria for when and how this involvement should take place. Interviews with staff of consulting firms and study houses identified a number of contrasts between their use of specialists and GAO's. In general, in contrast to the

way we staff our assignments, consulting firms and study houses have:

- Greater involvement of subject matter and functional specialists in the planning and execution of jobs, and
- Greater presence of specialists on project staffs.

The role of specialists and generalists in planning and doing jobs is central to job quality. The next subsection discusses it in more detail.

The Role of Generalists and Specialists in Quality Assurance

In interviews with GAO managers, we found widespread confusion and ambiguity about what constitutes appropriate use of functional and subject area specialists on an assignment.* This contrasts with apparent acceptance of their value and potential contributions. The task force believes this contradiction results from insufficient training in the use of methodologies and design to permit generalist evaluators and managers to confidently recognize when special functional skills or subject knowledge are needed on a job, and how to best define and use these specialists to fill the need. Even when such needs are recognized, GAO provides no system of convenient access to specialists to help with the definition, planning, and doing of a job using appropriate design and methodology expertise. Therefore—not surprisingly—little use of specialists is made in proportion to the number of jobs performed by the Office.

The lack of a systematic way to involve specialists is further compounded by the absence of commonly understood operational

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.*In this report, when we use the term "functional specialist," we mean a person with high levels of skill in techniques and methods used to perform assignments, such as ADP, design and methodology, legal, etc. By "subject area specialist" we mean a person who has high levels of experience and/or knowledge in a particular program, issue area, or agency.*

definitions of generalists, functional specialists, and subject area specialists. Specifically, GAO has no policy or criteria regarding the level of skills that should be a base level for generalists or what is expected of functional or subject area specialists. Part of the problem may be our lack of data on the present number and use of generalists, functional specialists, and subject area specialists in GAO. In particular, GAO needs an up-to-date assessment—by division, issue area, etc.—of our professional staff requirements in terms of abilities, functional skills, and subject area knowledge; this should then be matched against actual internal professional resources. Without this we cannot know whether we have on staff enough of the particular specialties to meet job needs.

Define Needed Skills and Training Levels for the 1980's

We also identified the need to increase the level of skills in the generalist evaluator to meet Office needs through the 1980's. In this decade, the term "generalist" must refer to an individual who has a basic level of competence in a variety of areas, several of which may formerly have been considered "specialized" but today are basics—at least up to some minimum practical level—for successful job performance. These skill areas include methodology and design, writing, statistics, ADP, economics, and specific auditing techniques. Evaluators need to know enough to decide whether a job needs particular specialties and at what level of expertise.

Improve Access to Specialists

Historically, GAO's approach has been to use functional specialists as consultants to the generalist auditors and to keep them organizationally and operationally separate. In contrast, organizations similar to GAO tend to decentralize specialists and integrate them into the organization as team

members in an operational capacity rather than an advisory role. This provides an opportunity for other members of the team to work with and learn from these specialists during the course of the project. It also results in shared responsibility and monitoring of job performance with specialized perspectives throughout the effort.

Increased use of specialists as integral members of an assignment team would benefit GAO also, particularly in increased quality of products and jobs resulting from close collaboration, but also in direct and indirect on-the-job training of co-workers and shared responsibility for results.

Disincentives for Collaboration

We identified within GAO significant disincentives to such collaboration. Housing experts such as economists and design specialists in separate divisions from generalists creates in itself normal bureaucratic disincentives for collaboration because of the "red tape" involved in crossing division lines. There is also competition between the line divisions and IPE regarding the areas in which IPE is to do its work. That competition prevents integration of methodology and design skills within GAO as a whole and impairs staff collaboration. Although a highly centralized organizational structure for design and methodology assistance specialists may have been appropriate in the past, the task force generally believes it no longer to be so, given the new skill levels needed to meet job requirements and standards of excellence, and the general acceptance at the division level of the need for this kind of assistance.

Quality Control

The task force identified three groups of products at GAO by the amount of quality control—that is, by the number and types of post-drafting report review steps performed:

■ Comptroller General-signed reports, testimony, and bill

comments evidence the most quality control steps and top management involvement.
■ Division director-signed reports, division director testimony, and staff studies have less — or an intermediate amount of —control, including little involvement of management outside the division chain-of-command.
■ Briefing papers, fact sheets, and questions provided to the Congress for use in hearings have the least quality control, often no division director involvement or involvement of management outside the division level.

Subject Area Review

In considering the type of report review performed by the different levels of reviewers, regardless of product type, we found that the job review process may contain between 3 and 10 report reviews of varying intensity by members of division management at all levels. These reviewers, because of their presumed familiarity with the programmatic content of the report, we called "subject area" reviewers.

Ten such report reviews can occur within a division when a report obtains agency comments and is reviewed in the division twice. Despite all of these review layers, we have no certain knowledge that all of the report is reviewed or what specific purpose each reviewer serves. Indeed, too many undefined quality control reviewers can actually harm the system of accountability that controls quality.

Cold Readers

Review by management above the division level frequently involves organizational perspective but not subject area expertise. We referred to these reviewers as "cold readers." Cold readers, thus, variously include the Office of Policy, any part of the Office of General Counsel review beyond legal issues, and individuals within the Office of the Comptroller General (e.g., Assistant Comptrollers General, the

Special Assistant to the Comptroller General) who may be involved in report review. Sometimes, the Office of Congressional Relations or the Information Office may also be "cold readers."

Cold reader review may occur between four and nine times for Comptroller General-signed reports, and on occasion for division director-signed reports when requested or when they are of a sensitive nature. We are concerned that presently no one can identify particular responsibilities and areas of focus for each reader. Thus, in some cases, the same aspect of a product is reviewed again and again, while other items may be reviewed by no one.

Little Use of External Experts

Review of the quality control procedures revealed a noticeable absence of review by outside readers and by functional specialists. Although advisory panels and special consultants have been involved in report review in selected instances, these occurred infrequently compared to the overall quantity of reports. Through this absence we lose an opportunity to verify the pertinence, accuracy, and significance of the product for its intended audience.

In summary, we concluded that much of the effort to assure the quality of GAO reports occurs after the report is developed — during the quality control/report review activity when a report is on the way to being issued. This final review stage suffers from both an insufficient participation by internal and external specialists and experts and an overabundance of review by "cold" readers.

Recommendations

GAO must strive for excellence in all work which is central to its mission. At this time too large a proportion of the Office's reports is just adequate — or inadequate. This is a theme the reader will recognize from Chapter 1, and is a central task force perspective on GAO's work.

Shifting to Quality Assurance

To accomplish our objective of producing excellent work requires an explicit shift in organizational focus from report review quality control procedures to consistent and applied use of quality assurance techniques which would more reliably build quality in, early on, as the job is planned and executed. Quality cannot generally be "added on" to a product after the fact; the product can only be "patched up" at that stage, with accompanying morale damage. As discussed in Chapter 3, there are also timeliness implications to product "fixes."

The task force believes that a shift of emphasis to quality assurance procedures will have several beneficial results. It will make it possible to lessen the number of quality control review steps, with potential improvements in morale and accountability resulting. Additionally, the substantial staff time requirements of repetitive report reviews will decrease* as efforts are shifted to quality assurance activities, enhancing job performance as well as product quality.

Successful Techniques

In our study of like organizations, the task force identified an emphasis from the outset on quality assurance through use of:

- Integrated teams of highly skilled staff trained in key programs and function areas,
- A small number of clearly defined quality control checks and report reviewers, and
- Sharing of signature or product release authority with lower levels of the organization rather than reserving it to top management.

Some groups in GAO already use some of these techniques. For example, the General Government Division has shown good results with a "design team" similar to the integrated team concept.** Use of these techniques appears to help build in quality and increase accountability for products and job performance.

In this environment—where little significant staff growth can be anticipated to supplement quality assurance—we think the shift in emphasis from chain-of-command quality control review to "building in" quality assurance is both the most feasible and the most efficient way to improve our work. Without requiring significant additional resources, it can help involve appropriately skilled personnel earlier in the project, thus developing drafts which are more easily completed with fewer quality control steps.

The following recommendations pursue that course.

Recommendation 2-1.Take Steps to Emphasize Quality Assurance by Improving Access to and Use of Subject Area and Functional Specialists

Personnel at all levels expressed uncertainty about the definitions and relative responsibilities of generalists and specialists on particular jobs. Specialists are inadequately used in job planning, and there are ill-defined procedures for recognizing when more skills are needed. Moreover, we too often have neither the time nor the opportunity to identify or eliminate a problem late in the job.

The task force has set forth a goal toward which GAO should work to address these problems. The goal is followed by steps GAO should take to improve job and product quality in the more immediate future.

Goal

The task force recommends that GAO plan and execute its jobs using an integrated subject and functional team approach. The integrated team would consist of staff with the needed mixture of functional, subject area, and management skills and experience. These staff members would be defined as members of the job team in proportion to the time their skills are needed to complete a particular job.

The approach would require the issue area or associate director (who would remain the central responsible individual for assignments) to have— either through his or her education or on staff — a level of design and methodological, statistical, economics, and ADP skills to adequately define job requirements during planning.

The issue area director and EIC should have other subject area and functional specialists available to the integrated team, as needed, to augment the level and types of skills they possess. These individuals would become team members—serving as operating staff members—for the duration of their usefulness. They would participate in the design, performance, and/or analysis functions; their involvement in particular jobs could be heavy or light, depending on the particular job.

Under this approach, specialists would exist as close to line management as possible in furtherance of the integration goal.

They would be located in divisions which can provide enough work to make that possible and efficient, and otherwise at a multidivision or GAO level as shared resources. Although evaluators should retain primary responsibility for writing quality, writer/editors should be recognized as equal professional members of the project team. While they should be available to work with the team during the audit, their involvement would logically increase during the last half or third of the job.

Within this concept, the deputy director for planning and reporting within all divisions should provide a focal point for review and approval of the team's plan for each assignment. This can help coordinate needed job resources and, most important, assure early management involvement in project planning. We recognize that neither the organizational structure nor the training levels nor the quantity of skilled staff in the agency can support this approach at the present time, and that it will take some years to accomplish. All three need to be coordinated to that end.

Actions Which Can Start Now

As first steps in moving toward the goal of integrated teams in the divisions, and in order that greater access to specialists can be available in the current system, GAO should:

■ Set standards for generalists regarding minimum quantitative, technical, and writing skill requirements. In support of the minimum skill level requirement for writing, we believe that proven writing capability—the ability to conceptualize ideas and data and compose them into a report—must be a prerequisite for movement into Tier II of the contemplated new personnel system.

■ Establish and implement a training program to bring generalists up to these minimum skill levels over some set period of time.

■ Define in more specific terms the respective roles and responsibilities of generalists, subject matter specialists, and functional specialists.

■ Identify systematically GAO subject matter experts and functional specialists by name and location to aid decisions on bringing expertise to bear on jobs.

In addition, the task force believes divisions should move now to adopt a "design team" approach for the scoping phase of a job as the first step in developing integrated project teams. The associate director should be responsible for convening the design team, including personnel with all skills and interests relevant to a particular job (e.g., design, methodology, legal, ADP, economics, etc.) during the scoping phase of jobs.

Move Specialists Into Divisions

Establishing design teams should be accomplished by the movement of specialists from centralized groups into those divisions which have sufficient need of their skills to support them at this time.

Centralized responsibilities (for ADP, economics, design and methodology, and writing) should be continued for:

■ Enhancement of GAO use of state-of-the-art applications, including, for example, demonstration programs for design and methodologies in partnership with respective issue area directors;

■ Technology transfer and development of skills to upgrade GAO evaluator capabilities, including curricula for training and skill development of staff; and,

■ Quality assurance responsibilties in job planning for design, methodology, and other specialized skills by participation in and/or ongoing assistance to the Assignment Review Group.

Recommendation 2-2. Devolve Signature Authority

Internal interviews with division directors and the experience of task force members further revealed that division directors generally hold themselves responsible for the quality of all reports issued by their divisions and, accordingly, most directors read all or most reports. In addition, they tend to be held accountable by others for the contents of their individual reports. Given that the Comptroller General has announced his intention that there be larger divisions in the future, and that division directors will play larger roles in the management of the Office as a whole,* we concluded that division directors cannot continue to serve as the senior quality control checkpoints for report quality and also adequately perform their requisite administrative functions.

We believe GAO should—over time—move release responsibility for most products to the division director level, the associate director level in charge of issue areas, and to regional managers.** The changes in organization announced by the Comptroller General, the similarity of quality between Comptroller General and division director-signed reports, the increasing size of divisions, and the emphasis on increased accountability for reports and products at lower levels within the organization support this proposal. Further, the new emphasis on subject area expertise argues for increased responsibility and authority at the level of the issue area director.

*Comptroller General Memorandum of 24 September 1982.

**The task force felt that, in time, it might be possible to devolve more authority.

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Accordingly, figure 7 shows those officials whom we recommend be authorized to release GAO's products.

The authorities identified in figure 7 are intended to be general release authorities. We expect that numerous exceptions to these patterns will occur—e.g., when unusually significant or sensitive reports are to be issued. In such instances, decisions regarding release must be made on a case-by-case basis.

Provision is made in these targets for a "cold reader" review of each report, outside the signature release responsibility for each category of reports, by using the staff and office of the Assistant Comptroller General for Planning and Reporting on products to be signed or released by the division director, and the office of the deputy division director for planning and reporting on products to be signed or released by the associate director.* The cold reviewer and the signer, together, should determine the need to obtain in-house peer review where appropriate, by calling upon the most qualified individual—even if other than the routine reviewer—to serve as a "second partner" reviewer for the report, regardless of his or her organizational location.

Recommendation 2-3. Institute Uniform Quality Control Procedures

GAO's report review steps should be clarified for different product types. We suggest procedures be adopted immediately to regularize the quality control process:

■ All reports, financial audits, and testimonies which are to be signed or given by a division director or the Comptroller General should be reviewed by the Assistant

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The targets do not deal with regional manager signature or release of reports specifically. There is also potential for increasing the regional managers' roles in this area.

PROPOSED RELEASE AUTHORITY

Release Authority	Type of Report	"Cold" Review
Comptroller General	■ Comptroller General Special Reports to Congress ■ CG Testimony	
Division Director (Future Target ACG)	■ Other Basic Legislative Responsibility Reports to Congress ■ Reports to Committee Chairmen ■ Reports to Members with Recommendations ■ Direct Testimony	Assistant Comptroller General for Planning and Reporting, or staff
Associate Director (Future Target Issue Area Director, or some alternative title)	■ Reports to Members with No Recommendations ■ Briefing Papers ■ Fact Sheets ■ Associate Director Testimony ■ Reports to Agencies ■ Background Papers	Deputy Division Director for Planning and Reporting, or staff

Figure 7

Comptroller General for Planning and Reporting.
■ All reports, fact sheets, briefing papers, and testimonies which are to be signed or issued by an associate director should be reviewed by the deputy division director for planning and reporting.
■ OGC should review all GAO testimony and reports to agencies and members of Congress and testimony which will be signed or given by an associate director.

Recommendation 2-4. Expand Use of Outside Peer Readers and Review Panels

When the chain-of-command review of reports within divisions becomes excessive, it can damage accountability and morale. In addition, division management review does not provide the outside perspectives which can benefit report quality.

We propose that division directors expand the use of outside peer readers and review panels and reduce the number of internal final product reviews wherever staff capabilities permit. This should be done in accordance with the uniform quality control procedures listed in Recommendation 2-3.

Recommendation 2-5. Re-Emphasize Policy Regarding Agency Comments

Obtaining agency comments can be an important quality assurance feature because it helps assure the accuracy of the data, the appropriateness of its interpretation, and the balance of the presentation. Further, communication with agencies about reports helps prevent inappropriate interpretations by GAO or by the audited agency. Finally,

we found that reports with agency comments more often were rated as attaining higher levels of quality.

Therefore, GAO should strongly reemphasize its policy of obtaining agency comments on reports to the Congress and agency heads. Written or oral comments should be obtained from an appropriate level agency official who clearly understands that he or she is commenting for the department or the agency. Comments on reports to the Congress should be obtained from the department or agency head, or a designee. Comments on reports to agency heads should be obtained from the responsible assistant secretary, bureau director, or his or her designee.

On congressional requests, GAO should make every effort to gain permission to obtain formal agency comments. Where the requestor will still not permit formal agency comments, the requestor should be asked to provide a letter to that effect. In cases where comments are not to be obtained, permission should be sought to release the report to the department or agency, and to other congressional sources, at the same time it is released to the requestor. In any event, GAO should hold a closeout conference with appropriate department officials to obtain informal comments and to assure the factual accuracy of the data collected.

In addition, GAO should consider revising its report release policy, which presently allows a requestor to restrict the release of a report for up to 30 days. Changing this policy could relieve criticism that agencies are sometimes faced with neither prior knowledge of the GAO-identified problems nor prior access to the report. Agencies feel that this lack of prior knowledge calls into question GAO's objectivity on some congressionally-requested assignments.

Recommendation 2-6. Develop a Concise Statement of Quality Standards

As an important step in moving toward clearer definitions of quality in the GAO environment, we should develop a concise statement (or statements) of quality standards for products other than reports—for briefing papers and fact sheets, in particular. Such a statement could facilitate understanding, accessing, and following the quality guidelines. Further, GAO should encourage IPE's experimentation with systematic measurement of product and job quality. If, indeed, a system can be established in GAO which effectively monitors and measures report and job quality and utility, it would have great value for the organization as a whole.

Recommendation 2-7. Require Full and Complete Referencing on Reports

GAO's credibility rests on the factual accuracy of its reports. Hence, necessary and prudent steps must be taken to verify and validate their contents. Our review of 25 reports found that 7 of the 25 were not fully referenced—an unacceptably large proportion.

We recommend that GAO modify its current policy of permitting selective referencing and require full and complete referencing on all report products. While referencing can and should be supplemented by such mechanisms as outside peer review on selected products, these techniques are not an acceptable substitute for the quality assurance provided by full and complete referencing.

Recommendation 2-8. Adopt a Story Conference

Our emphasis on quality assurance requires that the necessary tools and procedures be in place. The story conference is one such valuable technique which should be formalized and added to AMPS as a milestone. It can benefit both timeliness and quality by providing an important opportunity for deciding report message and content before the staff begins drafting.

The story conference should occur before the end of the audit implementation stage (milestone 5), and should cover the choice and format of the product as well as substance. The conference should resolve what to say, the value of continuing as planned, necessary changes, and additional resources required to draft the report. Format issues might include whether to use chapter or letter format, or whether another means of communication would be more effective.

The story conference could be two-staged, at the option of the division. First, staff or program participants could agree on findings, objectives, conclusions, proposed recommendations, etc. Second, staff who would review the report (issue area coordinators, representatives from the Offices of Policy or the General Counsel, etc.) would meet to (1) preview their positions on the major messages for this proposed report, (2) resolve any differences in advance of writing, and (3) identify who should comment on the draft itself. The decisions of both meetings should be documented.

Recommendation 2-9. Revise PPMA to Integrate with AMPS and Support Quality Assurance

PPMA provides other valuable opportunities to support quality assurance because it encourages careful job planning and control by identifying essential steps in building quality into job performance. However, its usefulness is hampered by the lack of sufficient coordination with AMPS, which is still in draft form and is not current with the Office's operating procedures. Moreover, GAO does not enforce the use of AMPS and PPMA, and does not indicate when it is acceptable not to use them.

In this light, the task force recommends several revisions to PPMA and AMPS:

■ In PPMA, decision papers should be required to aid go/no go decisions at the end of the scoping phase.

■ When scoping is waived, the Form 100 should justify the waiver and an assignment plan be required.

■ At least one quality assurance milestone should be added in the implementation phase, before the "Audit Work Completed" milestone. The milestone should occur when one-third of the planned implementation staff days have been used and should include a determination that staffing and timeframes targets can be met,and the job is worth continuing.

Reducing Job Time

The failure to promptly complete assignments and issue reports has been a perennial GAO concern. Indeed, the past decade has seen more than a dozen studies on this problem. Although some of these studies have helped cut the time it takes to complete jobs and products, many people still perceive GAO to be deficient in this area.

Importance of Timeliness

"Timeliness," when applied to GAO's products, can be ambiguous. It can mean either delivering a product early enough so the recipient can use it for its intended purpose (i.e., utility), or simply completing work within acceptable time constraints.

The utility aspect of timeliness is part of the larger issue of report quality (chapter 2). In this chapter, timeliness issues concern the calendar time it takes to do our jobs, particularly those long jobs that overrun their budgeted time limits. These "tail" jobs were a phenomenon in the task force's deliberations. The term refers to the jobs stretching out beyond the normal parameters of a bell-shaped frequency distribution of assignments, forming a "tail" at the end of the curve.* (See figure 8.) An aberration from the normal distribution of GAO reports, "tail" jobs sometimes last as long as four years, and, as we will see, almost always take far longer than their budgeted time. These are the jobs that hurt GAO's reputation for timeliness.

TOTAL TIME IN PROCESS FOR ALL CONGRESSIONAL AND AGENCY REPORTS

Figure 8

Over the years, congressional studies have chastised GAO on timeliness, and we ourselves have often studied the matter. Some recommendations have resulted in management actions to decrease the time GAO takes to do our work and process a report. For example, AMPS, which tracks assignments, was implemented in April 1979, following recommendations of the Task Force on Improving GAO's Effectiveness. And, in 1978, PPMA was recommended by an internal study group.

These tail jobs showed up in both Phase I and Phase II of our work.

Despite these improvements, interviews with congressional staff and discussions with GAO's Office of Congressional Relations (OCR) revealed that many people still perceive timeliness as a major GAO problem. In congressional interviews, 8 of 11 committee staff members commenting on timeliness claimed it is a significant problem. Furthermore, OCR advised us that congressional staffs' prime criticism involves timeliness. One OCR staff member told the task force that GAO's three biggest problems are "timeliness, timeliness, and timeliness."

Profile of Report Timeliness

Given these perceptions, what is the reality? The average GAO report takes about a year to complete. Budgeted at 7.5 months, it overruns 4.5 months—or 60 percent. (See figure 9.) This statistic is even more striking when separately computed for the major types of GAO products. As figure 10 shows, average job length varies greatly depending upon product type. Reports to Chairmen average less than 10 months, while those to the Congress (as a whole) average almost 18 months. But all four product types (on the average) have overruns, ranging from 45 percent for group 2 reports to agency heads, to about 76 percent for committee members' requests.

Having established that, on the average, each primary product takes significantly longer to produce than is planned, we wanted to know the proportion of GAO's assignments which overrun, either during survey or implementation. According to AMPS data, about 80 percent of our jobs overrun their survey completion and/or final due date.* And overruns occur at all AMPS milestones. (See figure 11) Those most frequently overrun, however, involve audit completion, writing and report review.

As figure 12 shows, the timeliness profile of jobs in process has changed little in recent years. While the number of jobs in process from October 1980

TYPICAL JOB TIMELINESS PROFILE
(IN MONTHS)

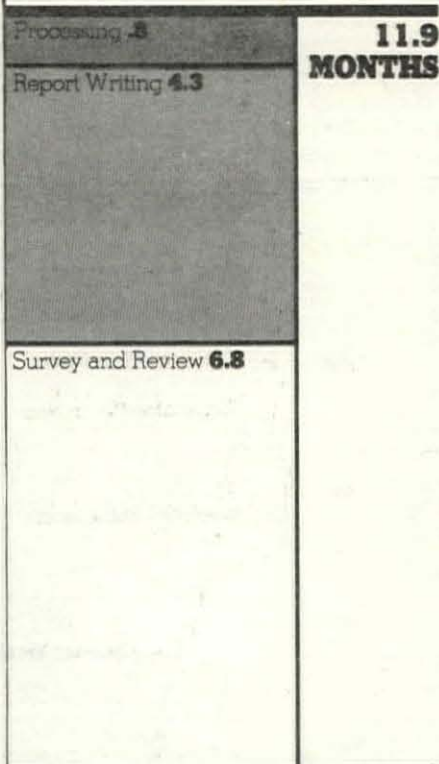| Processing .8 | **11.9 MONTHS** |
| Report Writing **4.3** | |
| Survey and Review **6.8** | |

Figure 9

to September 1982 declined dramatically—particularly in recent months—there has been little change over the past year in the *proportion* of long jobs in process more than 24 months. We also noted that both the number of jobs in writing and the proportion in writing more than 12 months have been relatively stable.
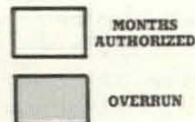
Lastly, figure 13 shows that GAO

*After AMPS milestone 3 (Planning/Survey Completed), new time estimates are made for milestones 4 through 12 (Implementation Started through Assignment Completed). A job can overrun milestone 3, never recover the lost time, yet end up on schedule at milestone 12 because of the re-estimate "adjustment" between 3 and 4. Thus, in determining overruns, both the Planning/Survey and Implementation phases were analyzed.

has reduced neither budgeted nor actual job times over the past few years.

Why Long Jobs Take So Long

We tried to determine (1) why long jobs take so much time, and (2) whether they are problem jobs that overrun their budgeted timeframes. Thus, we reviewed job files and master report folders for 25 long jobs in Phase

TIMELINESS PROFILE OF GAO REPORTS TO THE CONGRESS AND AGENCY HEADS

	17.7	7.2	
		69%	14.4
			4.5
			45%
9.6		10.5	9.9
3.6			
60%	7.2		
	3.1		
6.0	76%		
	4.1		

| ADDRESSED TO (NUMBER) | (258) | (146) | (148) | (168) |
| | COMMITTEE CHAIRMEN | MEMBERS OF CONGRESS | CONGRESS | AGENCY HEADS |

☐ MONTHS AUTHORIZED

▨ OVERRUN

Data for 12 months ending 6/30/82

Figure 10

I and for 70 jobs—the seven longest jobs in each division for the year ending 30 June 1982—in Phase II.

Initially suspecting that some jobs were planned to last as long as they did, we learned that nearly all the jobs overran, and the average overrun for the 95 jobs was more than a year. Figure 14 shows that overruns of the 70 jobs reviewed in Phase II occurred in all stages, with the largest overrun during reporting.

Explanations

In reviewing the files for the 95 jobs, various explanations of job length and overruns emerged. Figure 15 shows the reasons most often cited, and the percentage of jobs in which the reason was considered either a primary or secondary cause of the job overrun. The types of problems that occurred in the eight areas most often cited as primary reasons for overruns are discussed below.*

Figure 11

AMPS MILESTONES

1 **Assignment Started**
2 **Scoping Completed**
3 **Planning/Survey Completed**
4 **Implementation Started**
5 **Audit Work Completed**
6 **First Product Delivered**
7 **Sent to Agency for Comment**
8 **Comments Received**
9 **Sent to Final Processing**
10 **Report Issued**
11 **Evaluation Completed**
12 **Assignment Completed**

Washington Staff Overload/Higher Priority Work

Although GAO field offices will not accept jobs they cannot staff, Washington often does without terminating other jobs. This creates an overload which can seriously affect report drafting and processing.** The task force noted that in more than half the jobs it reviewed, staff members were taken off ongoing assignments to

(1) work on congressional requests, (2) handle agency comments on other reports, (3) process reports, or even (4) serve on a task force. While certainly one should not fault management for moving staff to higher priority jobs, this movement can nevertheless have unfortunate consequences for both jobs. Generally, if we had more staff, or fewer jobs, there would be less frequent "either/or" decisions necessary.

Report Writing Problems

Too many GAO staff members charged with preparing report drafts require intensive supervision. The task

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*Not all of these reasons are bad or bespeak error or mismanagement. Some are simply the price of the priority decisions we make or the result of unforeseen circumstances.

**When a job is begun, it is not always known whether report drafting and processing and other time-consuming efforts will occur at the same time as efforts on other jobs, particularly since the big time-consuming part of a job for headquarters personnel may be a year or more away.
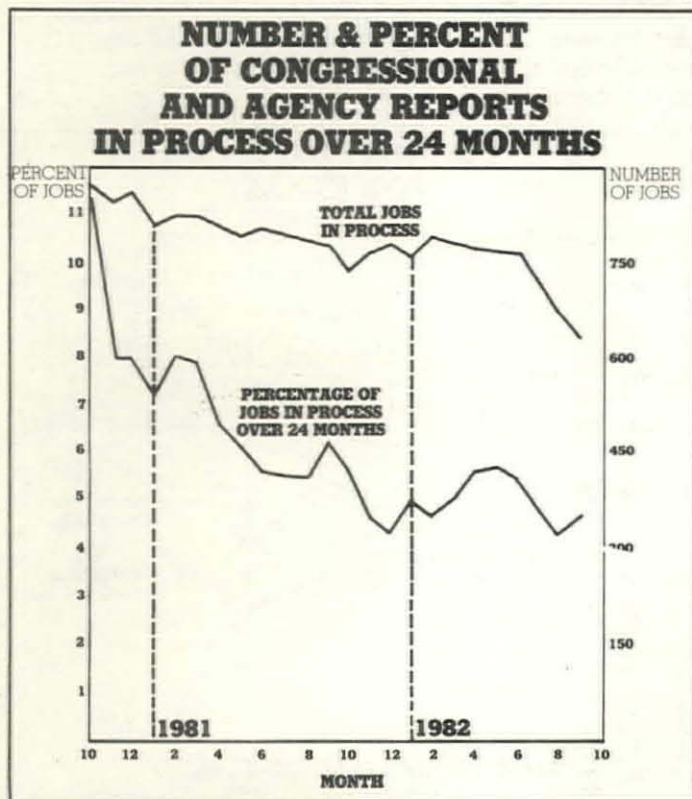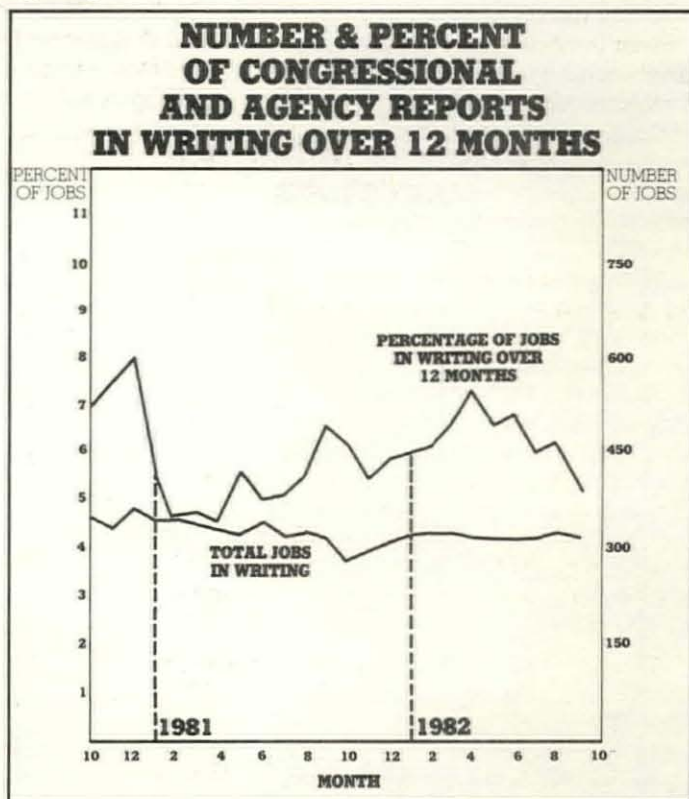

Figure 12

force noted report writing problems in almost half the jobs reviewed: report drafts identified problems, but not causes; staff had to stop drafting and perform additional audit work to produce a convincing first draft; and sometimes staff at the associate director level and above had extensive problems with the content of drafts, indicating they were surprised by the messages of the report. The task force noted, as shown on figure 16, that whatever the reason cited for overruns, the slippage of calendar dates always most seriously affected timeliness at milestones 5-10, the Report Writing and Review stages. The task force wondered whether this means that whenever a problem occurs, the report becomes more difficult to write? Or perhaps staff is reluctant to report that early milestones are not met. (The latter would indicate an "I can make up the difference" philosophy which is not borne out later in the job by actual performance.)

Authorized Time Understates Time Job Could Be Expected To Take

Given the complexity of some assignments we reviewed, the staff who planned some jobs seemed unrealistic about the time needed to complete them, particularly when they had to review many agencies and visit multiple locations. In one instance, a division estimated it would take 2 weeks to go from audit work completed to first product delivered, another 2 weeks to get the report sent to final processing, 2 more to get the report issued, and 2 to get the assignment completed. "Audit work completed" to "first product delivered" actually took 18 weeks, and it took an additional 6 months to get the report issued.

Understaffing By Regions and Other Staff Problems

The inability to assign sufficient regional office personnel to a job promptly, and the loss of key personnel to a job for various reasons, frequently led to job overruns. In more than a third of the jobs reviewed, the task force saw assignments where unavailability of staff caused regional offices to delay beginning the assignment (or to understaff it); and instances where key staff members on the assignment became ill, were promoted into another division, or left the agency. The latter problems, while certainly not predictable on a case-by-case basis, are common but generally unanticipated occurrences.

Unforeseeable Increases In Work Scope

Almost a third of the jobs reviewed were affected by unforeseen increases in work scope. Sometimes this occurred when the requestor of the review desired additional information. In other instances, an increase in scope was needed when late developments affected an almost completed review or report.

Multiple Organization Involvement

In over a quarter of the jobs reviewed, the involvement of more than one region, division, or agency caused time delays. We saw several instances where GAO staff had difficulty pulling together summaries from several regional offices and/or coordinating work among several GAO divisions. A regression analysis performed by the task force showed that an average of 9 days would be added to report processing for each agency involved, 6.4 days for each region involved, and 17.3 days if two or more divisions were involved.

TRENDS IN BUDGETED JOB TIMES
FY 1980-82

CONGRESS
AGENCY HEAD
COMMITTEE CHAIRMAN
MEMBERS OF CONGRESS

DEC MAR JUNE SEP DEC MAR JUNE SEP DEC MAR JUN SEP
1980   1981   1982

TRENDS IN ACTUAL JOB TIMES
FY 1980-82

CONGRESS
AGENCY HEAD
COMMITTEE CHAIRMAN
MEMBERS OF CONGRESS

DEC MAR JUNE SEP DEC MAR JUNE SEP DEC MAR JUN SEP
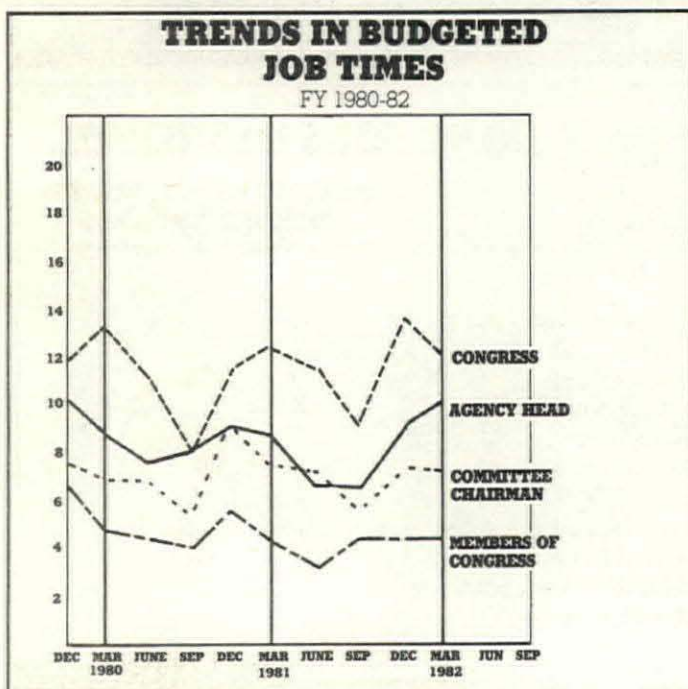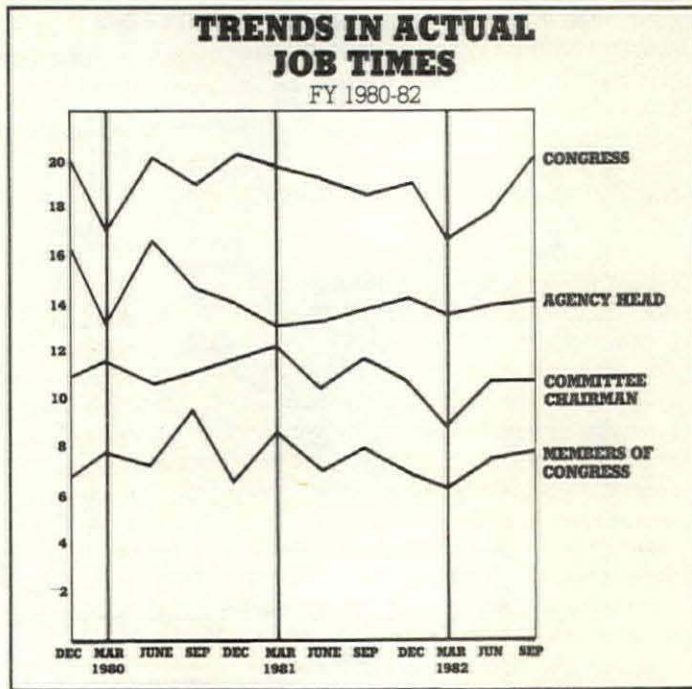1980   1981   1982

Figure 13

Problems Obtaining Data From Agencies

GAO had problems obtaining data from agencies in nearly 20 percent of the jobs reviewed. Although these delays were generally not outright denials of access to records, they did delay assignments. Thus, one agency required us to supply our questions in written form, to which it provided written responses; another withheld information (temporarily) due to business confidentiality; and one military service refused to cooperate with GAO until the Office of the Secretary of Defense required cooperation. In some instances, demand letters from the Acting Comptroller General were required to obtain the data.

Insufficient Front End Planning

Insufficient front end planning was a problem frequently identified by the task force. About one in seven of the long jobs we reviewed had planning deficiencies which ultimately affected job timeliness. Seven of nine division directors and most regional managers said this was a problem.

Lack of Guidelines and Control

In speaking with division directors and other GAO personnel, we concluded that the lack of GAO-wide guidelines about how long jobs should take hampers efforts to control timeliness. In addition, two systems with great potential for controlling timeliness — AMPS and PPMA — are not well integrated. They have other problems as well.

AMPS does not track multiple products within an assignment, so it is not possible to tell whether each product of a multiple product assignment is meeting its milestones. In addition, some jobs with multiple products appear to take inordinate amounts of time when, in fact, each product was completed within a reasonable timeframe.

AMPS also cannot adequately track assignments in a manner that permits comparisons among divisions because of ambiguities in the definitions for milestone 5, Audit Work Completed,

AVERAGE BUDGETED TIME AND OVERRUNS OF SAMPLE OF 70 LONG REPORTS BY PRINCIPAL PHASE

PLANNING, SCOPING & SURVEY (Milestones 1-3): 4.3 | 3.0

AUDIT (Milestones 4-5): 5.4 | 2.1

REPORTING (Milestones 5-10): 5.0 | (5-6) 3.7 (6-7) 3.0 (7-10) 1.7 → 8.4

BUDGET: Average Budgeted Time 14.7 months
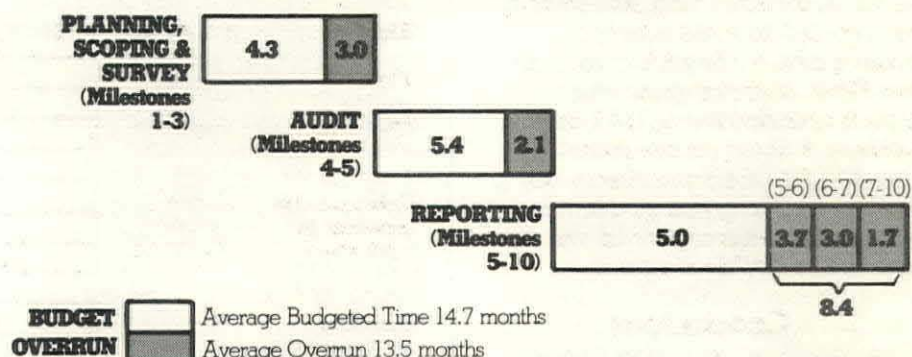OVERRUN: Average Overrun 13.5 months

Figure 14

and milestone 6, First Product Delivered.

Under the AMPS User's Manual definition, "audit work completed" is the date when, in the judgment of the audit manager or team leader, the "predominant effort" ceases to be detailed audit work and becomes external report preparation. In most cases, this would be when the last participating organization submits its draft product.

There are three possibilities listed in the Manual for dating this "first product delivered": the date the product is received, or is expected to be delivered

to the responsible manager in Washington, if a field office is drafting the report; the date the report is delivered to the Washington manager who would normally receive draft reports from the field, if the Washington staff prepares the report; or when the Project Manager delivers the draft report to the next level of review.

The ambiguities in milestones 5 and 6 become more important when one considers setting guidelines for milestones. Unless clarified, they can make it very difficult to establish acceptable timeframes for milestones.

REASONS WHY LONG JOBS OVERRAN

REASONS	PERCENT OF JOBS WHERE CITED AS A REASON
1. Washington staff overload/staff put on higher priority work	53
2. Report writing problems	48
3. Authorized time understates time job could be expected to take	39
4. Understaffing By Regions and Other Staff Problems	36
5. Unforeseeable increase in work scope	31
6. Multiple organization involvement	27
7. Problems obtaining data from agencies	19
8. Insufficient front end planning	14

Figure 15

PPMA, when properly implemented, can improve a job's timeliness by assuring consideration of the right issues, approach, timing, and staffing early enough to avoid writing or auditing delays. The task force found that PPMA does not get as much explicit consideration by GAO staff as it warrants. It would receive more attention if it were more directly tied to AMPS, and if its go/no go decision points were better combined with the appropriate AMPS milestones.
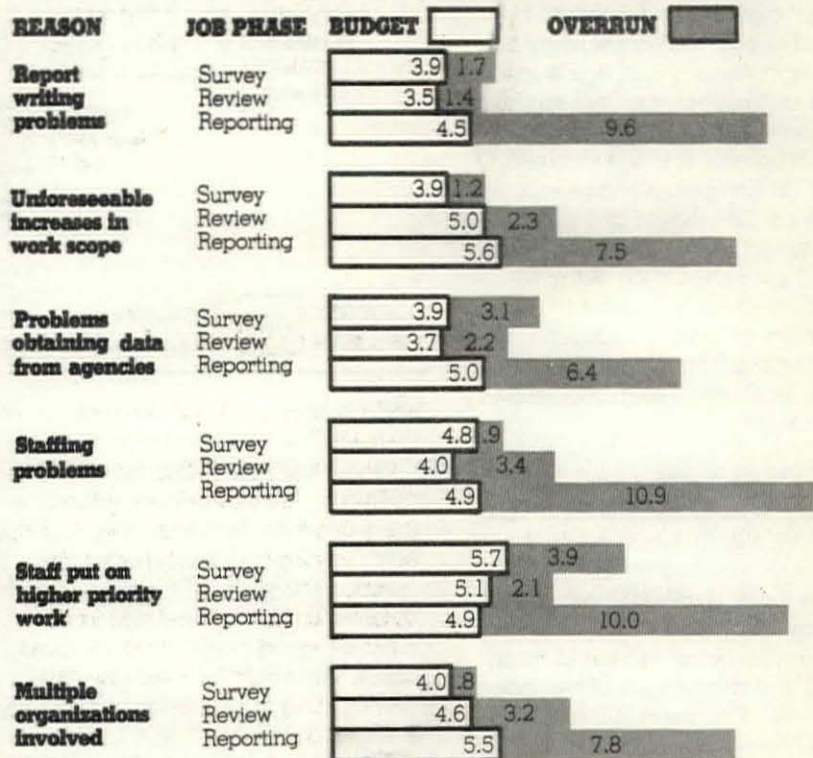
Conclusions

We believe the budgeted calendar times GAO has been setting for its assignments are good targets. (See figures 9 and 10.) If we met them, jobs would average about 7.5 months. But GAO does not take its budgeted assignment timeframes as serious constraints. In fact, we miss them consistently and by significant margins. Only about 20 percent of GAO's jobs appear to be completed within originally estimated time constraints.

Moreover, GAO seems to have a number of problem jobs that overrun their budgeted timeframes by as much as a year or more. These primarily occur because of (1) staff being put on higher priority work, (2) staffing problems, (3) unforeseeable work scope increases, (4) problems obtaining agency data, (5) the involvement of multiple organizations, and (6) significant report writing problems. Since GAO has no commonly understood and accepted guidelines for how long various types of jobs should take, we do not know what the acceptable timeframes for jobs should be. But we do know that the Hill thinks GAO has a timeliness problem, and that GAO's data shows that, on the average, jobs take considerably longer than estimated.

The best opportunities for reducing time, obviously, are the long jobs. Reducing their time would decrease the number and length of tail jobs, which hurt our reputation for timeliness and could improve the Hill's perception of GAO's ability to

IMPACT OF OVERRUN ON PRINCIPAL JOB PHASES FOR SIX OF THE MOST FREQUENTLY CITED REASONS

REASON	JOB PHASE	BUDGET	OVERRUN
Report writing problems	Survey	3.9	1.7
	Review	3.5	1.4
	Reporting	4.5	9.6
Unforeseeable increases in work scope	Survey	3.9	1.2
	Review	5.0	2.3
	Reporting	5.6	7.5
Problems obtaining data from agencies	Survey	3.9	3.1
	Review	3.7	2.2
	Reporting	5.0	6.4
Staffing problems	Survey	4.8	.9
	Review	4.0	3.4
	Reporting	4.9	10.9
Staff put on higher priority work	Survey	5.7	3.9
	Review	5.1	2.1
	Reporting	4.9	10.0
Multiple organizations involved	Survey	4.0	.8
	Review	4.6	3.2
	Reporting	5.5	7.8

Illustrates major impact of primary causes is always on 5-10 milestones.

Figure 16

complete jobs in a reasonable timeframe. Shortening the length of long jobs also would improve the average timeframe for GAO jobs.

Not knowing what constitutes acceptable times, and lacking reliable projections of when a significant overrun is going to occur, management cannot manage the time consequences of GAO's work.

Recommendations

The task force developed six recommendations to reduce job time. Two of them deal with establishing and monitoring timeframes; two are directed toward staffing problems; and the final two concern job execution.

Recommendation 3-1. Establish Time Guidelines

GAO needs to establish guidelines for job times. This would define management's realistic time goals toward which staff could strive. Some divisions already have time guidelines (some formal, some informal). They are generally in the form of total assignment time limitations. These guidelines need to be made more explicit. Development and oversight of the guidelines should be the shared responsibility between each GAO division and the Office of the Comptroller General. This would allow practical tradeoffs in division guidelines, on a case-by-case basis. Thus, the task force believes the Comptroller General should reach agreements with each division director on the time frames for GAO's primary products

(1A's, 1B's, 1C's, and 2's). They would cover products issued during a specific period of time (e.g., one year).

Divisions would set job budgets using the guidelines as benchmarks, varying above or below the guidelines depending upon the circumstances of the job. They would monitor actual performance against the AMPS budget milestones and provide early alerts to the Office of the Comptroller General for assignments in danger of serious overruns.

Recommendation 3-2. Revise AMPS and PPMA

AMPS and PPMA provide potentially valuable planning, information, and control mechanisms that could help assure more timely job completions. PPMA—when followed—provides disciplined planning and requires that we consider the merits of a job at each go/no go decision point. This can eliminate surprises in the writing stage and reduce job timeframes.

In chapter 2, on Quality, we recommend updating and issuing AMPS and PPMA as a coordinated planning and tracking system using common terms and decision points. This will have valuable timeliness benefits, too. In addition, current milestone ambiguities could be resolved in the following ways:

1. Define milestone 5, Audit Work Completed, in the AMPS User's Manual, as the date when the story conference is completed, or when work required by that conference is completed. Chapter 2 provides a detailed discussion of what a story conference entails.
2. Define milestone 6, First Product Delivered, in the AMPS User's Manual, as the date when the report draft reaches the associate director for initial review.

The task force was asked by the Office of Program Planning to consider whether GAO should revise AMPS to track multiple products of one assignment. Some divisions are using separate job codes for individual products associated with a single

assignment, which somewhat distorts the average division-by-division assignment timeframes. Given the additional cost of revising AMPS, we do not recommend such a revision. When additional products are required beyond those originally contemplated, and these require more than a certain specific number of additional staff days (e.g., 50 days), we suggest a new job code for the additional work.

Recommendation 3-3. Establish Staff Loading Guidelines

Washington staff overload, especially at the GS 14 and 15 levels, was present in a large number of overruns. We recognize, however, that one can scarcely resist beginning a new assignment since the problems that may occur (often in the report writing stage) cannot be anticipated.

To help control against such overloadings, we recommend that division directors and their headquarters managers (GS 14 and 15) agree on staff loading guidelines, that is, the number of assignments managers can reasonably be expected to handle without overload.

This is already happening in parts of GAO. The Human Resources Division, for example, counts "assignment points" for each assignment. Once GS 14 or 15 staff have reached a particular total, division management closely monitors the undertaking of new work until one or more of the ongoing assignments is finished. If additional assignments *must* be accepted, division management is alerted that an overload situation could be present, and can tailor time expectations and staffing decisions accordingly.

Recommendation 3-4. Control Release of Staff

When moving staff to a higher priority job hurts the timeliness of an ongoing job beyond some established minimum number of calendar days, the division director should be required to document that effect on the ongoing job by noting it on the new job's Form 100. Thus, the director and the Office of the Comptroller General

would identify this effect on current jobs as part of the approval process for new work. The director would proceed, but the Office of the Comptroller General could "manage" the relative impact by exception, as desired. The division director thus makes the decision, subject to review (and redirection) at the Comptroller General's option, and the Office of the Comptroller General has "bought into" the decision.

Recommendation 3-5. Try to Reduce Multiples on a Job

The task force believes that in some cases, one staff (headquarters or regional) should do a job at its multiple locations, rather than splitting it among separate regional staffs. This reduces the "learning curve" and can eliminate communications problems in writing.

In addition, field staff can do some jobs alone, without division leadership. This would be particularly appropriate for repetitive audits. Divisions also could do field work directly in a similar manner.

Recommendation 3-6. Get the Report Story Agreed Upon in Advance

Report writing problems will be partly alleviated by the story conference discussed in Chapter 2.

The story conference would occur before the end of the audit implementation stage (milestone 5). It can provide another go/no go decision point, and if carried out properly, will result in some jobs being killed that might otherwise have turned into problem jobs. For the majority of jobs that continue, it will ensure agreement as to what will be said in the report, and line up the appropriate writing help. The latter is particularly important on jobs where staff writing capabilities are weak, or writing the report will be difficult.

The story conference also can establish the format for communicating the findings. Chapter 4 discusses the role of the story conference with regard to writing and format.

Communicating Better

Given the number of reports we distribute, GAO is actually a publishing house, and we should commit ourselves to excellence in communication as in other areas. Having done our jobs well, we must also communicate well. Using the most appropriate available methods and selecting the most suitable media and formats, we must then produce them as well as possible.

A Broad Range of Issues

To better understand the quality of our own products and production practices, we compared them with other agencies'. Our conversations with communications professionals and our own deliberations covered a range of issues:

■ The strengths and weaknesses of our own products;

■ Options ranging from the color of our covers to whether we should change titles, cover summaries, or digests;

■ The quality of writing and graphics in our reports;

■ Our use of writer/editors and graphic designers;

■ The identification of audit teams in our reports; and

■ The use of other reporting formats, such as video tapes and automated data bases linked to the Hill.

Much Room for Improvement

We concluded that while our work and methods compare adequately with those of similar organizations, we can improve our communications in many specific ways. Our recommendations

for improving the range and quality of GAO's reporting methods appear later in this chapter.

Given the close relationships among writing, design, and printing, the reader will notice some overlap of issues. These three areas are indeed not discrete and isolated units. This discussion will recognize their inseparable natures. For the sake of clarity, however, the discussion will have two parts: (1) how we communicate, and (2) how we produce our reports.

How We Communicate

Much of our communication occurs through chapter and letter reports, supplemented by various other forms. These include testimony, comments on legislation, questions prepared for
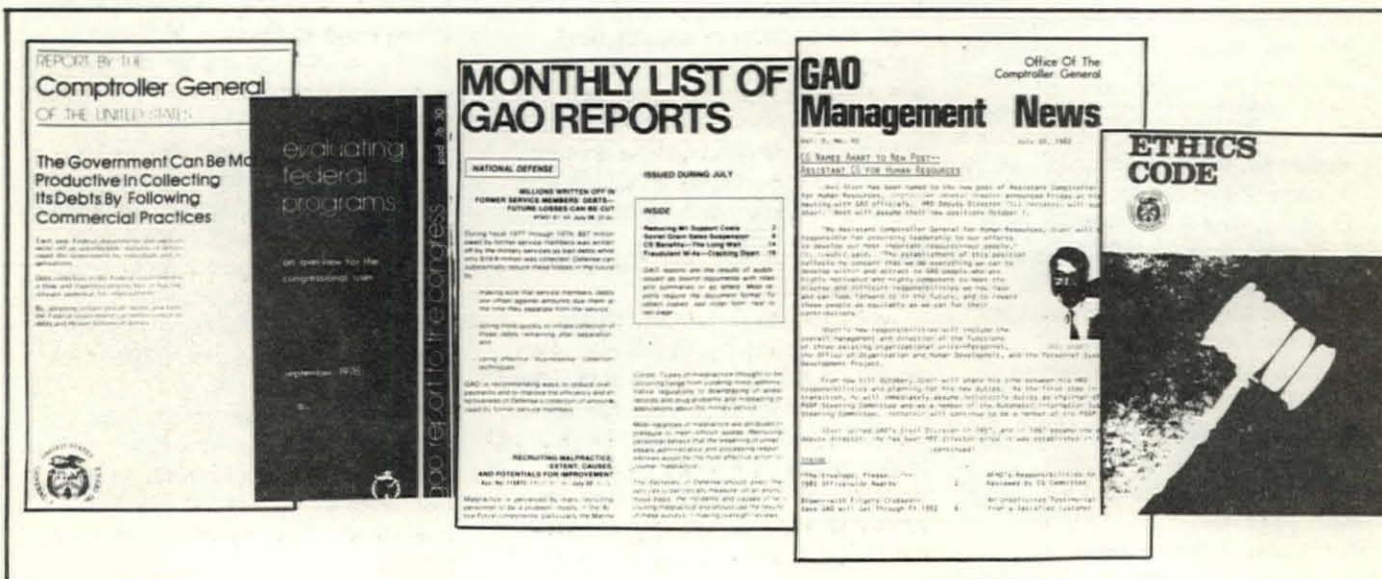

Figure 17

congressional use at hearings, fact sheets, and closeout letters.

Our Present Formats — Unexamined and Ad Hoc

Despite the crucial importance of effective communication, GAO provides scant formal guidance governing chapter, letter, and other formats. Decisions about format and appearance generally take place at the group director and staff level, usually based on the length of the report and how quickly it can be produced. Under present policy, if it is short—under 10 pages of text excluding appendices—and if it is needed quickly, a report may go out as a letter; otherwise, it usually will be a chapter report. But our decentralized decision making and loose guidance allow considerable variation in how we use formats, especially the letter.

Lacking an organizational focal point responsible for developing communication standards and for encouraging and coordinating experiments, our other formats are even less well defined. Thus, fact sheets and briefing papers have only the sketchiest official guidance, while the opportunities presented by new formats (e.g., video) remain largely unexplored. The resulting lack of any

consistent design identity is apparent in figure 17. No one has made a comprehensive review of our communications policies and practices, and there has been little sustained enthusiasm or encouragement for seeking new ways of communicating effectively.

The GAO Report: Many Issues To Consider

Since chapter and letter reports are our most important formats, they received the most scrutiny. The issues we considered fall into three areas:
Format issues
■ Chapter vs. letter formats,
■ Naming the audit staff in our reports, and
■ Digests.
Problems noted by users
■ Writing style,
■ "Sensational" titles, and
■ Weak conclusions and recommendations.
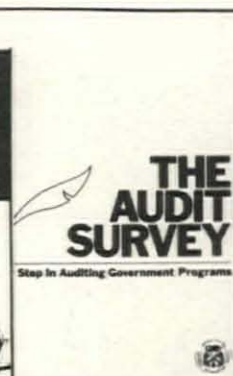Design issues raised by experts
■ Use more visuals
■ Simplify cover and remove cover summary, and
■ Shorten lines and use phototypesetting to improve readability.

Format Issues

Chapter vs. Letter Formats. Neither the chapter format's structural constraints nor the letter format's lack of structure seemed to cause serious problems. Despite some redundancy in the chapter format, few people were strenuously negative about it, and some said they valued well-placed repetition.

Overall, we believe the two formats are appropriate for different purposes. Chapter format helps structure long or complex topics, whereas letters lend themselves to quicker and easier writing and reading of more straightforward reports—single-issue, congressional request, or informational. A 10-page limit suits letters, since details can be attached, but we should avoid encumbering them with appendices of more than about 15 or 20 pages.

Naming the Audit Staff in Our Reports. Naming offers advantages and disadvantages. Our sister agencies—OTA, CRS, and CBO—name the staff members who prepare their products, as do many study houses, such as MITRE and RAND; however, consulting firms, as a rule, do not. Naming names would give our staff personal and professional recognition and thus might make it

easier to attract specialists from universities and other places which value professional recognition. It would also identify contact points for further information. On the other hand, people named might draw individual criticism, and our reports might appear to be the views of a group of individuals, not of the whole organization.

We could not reach a consensus on the issue, but eventually concluded, with almost half the members voting the other way, that we should continue our present policy. We did agree, however, that a contact person should be named somewhere, perhaps in the transmittal letter.

Digests. Since the interviews produced little complaint and even some favorable comments about our digests, we do not propose changes. Some members, however, suggested changes to improve communication. Thus, we discussed (1) using separately bound executive summaries to supplement the digest and text of long reports, (2) using abstracts in reports where appropriate, and (3) reorganizing digests to place a short, highlighted statement of the overall message at the beginning (which would move the cover summary inside). Any change in the digest will depend partly on whether and how we change the cover summary.

Problems Noted By Users.*

Congressional users had few criticisms of our formats, but agencies were more critical. Three points came up repeatedly.

Writing Style. Although the agencies liked GAO's writing style, four congressional users found it bland and uninteresting. According to one person, our reports read "as if they were written by people who don't like to write." Better use of professional writer/editors can help solve both this and the following problem.

"Sensational" Titles. Our titles drew heavy criticism. Some criticized them for (1) being too negative, (2) seeking headlines, (3) creating resistance to the report, and (4) being more dramatic than the findings. Design experts and media users judged they were too long.

The proper tone of a title is difficult both to specify and to achieve. Titles should (1) specify the issue or program discussed, (2) lead with that issue, and (3) identify what aspects it covers, without seeking headlines or being inflammatory.

Weak Conclusions and Recommendations. Several agencies felt that recommendations and conclusions were not specific enough (although one felt they were too specific), and one objected to conclusions phrased as if they were the only possible solution.

Design Issues Raised by Publishing Experts.

The experts—the heads of publishing, design, and editing operations at government agencies, study houses, consulting firms, and journals, as well as independent professional design consultants—had few favorable comments. They made numerous suggestions about how our

formats could be improved at little or no additional cost and, in some cases, with cost savings.

Use More Visuals. Graphics and other visual display techniques can make our presentations clearer, briefer, more vivid, and more appealing. Visuals can attract more busy readers to our reports and convey the message to them more rapidly, more effectively, and more memorably. Through policies and funding, we should encourage more use of graphs, photos, drawings, charts, maps, etc.

Simplify the Cover and Remove the Cover Summary. Experts almost unanimously agreed that the cover was cluttered and lacked a clear visual hierarchy among its elements; the title needs to be the most prominent element, the cover summary is confusing and awkwardly placed, and there is a mixture of typefaces for no apparent reason. (For more on these and other cover design issues, see Recommendation 4-4.)

Shorten Lines and Use Phototypesetting to Improve Readability. Judging by widely accepted publishing standards, the line length currently used in our reports is too long for good readability. Shorter lines, most practically achieved by using much wider margins or changing to a two- or three-column format, would be less demanding on

The experts we interviewed felt that asking users for views on format was of questionable value without showing them alternatives for comparison. This proved to be the case, since most specific suggestions about format (as opposed to production) came from the experts.

Report Titles

We constructed three hypothetical titles to illustrate the task force's recommendations regarding proper and improper tone:

- "Flat Rate Tax System Benefits the Rich"
- "Flat Rate Tax System: An Assessment"
- "Flat Rate Tax System Iniquities"

The first is somewhat inflammatory because it draws a conclusion and sounds like a tabloid headline. Besides castigating the "rich," it reduces a presumably complex issue to simplistic polarities and prevents the reader from approaching the topic with an open mind. The second title dodges the issue entirely. "Assessment," in this instance, is too bureaucratic and frustrates our interest. The third title, however, seems about right because it mentions iniquities without smearing a class of people and provoking bitter dispute.

Product Line

1. *CG Special Reports.* Distinguished from usual blue covers by format, they would give the CG a forum for discussing issues which warrant his personal advocacy. We envision two major uses:
■ Synthesizing previous reports on related issues, e.g., a recent report drew together information on 25 weapons systems, and
■ Jobs that are planned from the outset to result in major public policy reports, such as our work on biennial budgeting.
2. *Blue Cover Reports on Job Results.* The blue cover is our mark of quality and should go on every report we send to the Hill. This includes our current line of blue covers, plus the background portion of staff studies, now to be called "background reviews." We envision four blue book types, distinguished from one another on the cover:
■ "Member Request,"
■ "Committee Request,"
■ "Report to the Congress," and
■ "Legislatively Mandated."
   Whether or by whom they would be signed was left unresolved.
3. *Financial Audits.* These would be blue covers and would definitely be signed, for reasons of accountability. But they would be distinguished by design from the other blue covers above. They have different purposes and a narrower focus, are numerical rather than verbal, and address different audiences.
4. *Fact Sheets.* These and briefing papers should be official, attributable GAO communications on GAO letterhead. They might often replace the more elaborate, slower, and more expensive blue covers, now our only way to meet congressional requests for formal, written copy. Fact sheets would satisfy requests that require information without analysis, recommendations, or conclusions.*
5. Briefing Papers. These would differ from fact sheets mainly in that they would be written to serve as instructions—perhaps topic sentence outlines—for delivering oral briefings. More readily subject to quality control than purely oral briefings, they would help avoid different understandings of what we think we said and what a listener heard. They would also allow us to present written results early while a report is still in process, a practice used by consulting firms and the task force itself. We suggest that GAO develop models of fact sheets and briefing documents that would be subject to supervisory approval and could be delivered to the Hill.
6. *Testimony*
7. *Program Plans.* These will not change but will no longer appear as staff studies.

*See Chapter 2 for discussion of quality control review for fact sheets and briefing papers.

our readers. Phototypesetting would facilitate the use of narrower columns or wider margins because it permits (1) smaller type, with no loss of legibility, and (2) the layout of multiple columns (which is more difficult to do manually) by working directly from word processor discs or tapes onto automated equipment. An added benefit of multicolumn formats is that the smaller type and narrower margins result in considerable savings of paper, about one-third less for two column versus typed and about one-half less for three columns. This and additional savings we could get from phototypesetting could make our reports less bulky and add up to

$700,000 in cost savings over five years, according to AFMD's estimate.

Briefing Papers And Fact Sheets
Although reports draw the most attention, briefing papers and fact sheets are used now and have valuable potential. Lacking formal guidance, division use of briefing papers and fact sheets varies widely. Some are signed and formally transmitted for attribution, others merely left on the Hill. Some identify GAO, others do not. The two formats are not fully distinct from one another, since some documents have been labeled "briefing papers," even though no briefing was given.

Many congressional users said they had good experiences with briefings because they got information quickly, but they stressed repeatedly their need for (1) details, not just conclusions, and (2) a written product to send constituents, use at hearings, enter in the Congressional Record, etc.

More use of briefing papers and fact sheets could permit faster, easier closeout on jobs that would otherwise require a blue book. If we can develop formats that satisfy the congressional need for quick information, present that information in a sufficiently official form, with appropriate quality standards and review, customers might

find them acceptable, in some cases, in lieu of blue books.

If we hope to use them this way, we will need clear and consistent guidance and standards for both fact sheets and briefing papers.

Other Possible Formats

Other formats (e.g., videotapes, cassettes, or computer data bases) are not likely to be as useful as primary communicators for GAO, given congressional need for details and hard copy, and the extra time and cost of producing them. But they might enable us to reach a wider audience or to reach our users more rapidly, especially through direct links to Hill ADP systems or the House/Senate closed-circuit TV system.

Recommendation 4-1. Extend and Straighten Our Product Line

We suggest two major changes:(1) incorporating the Comptroller General's concept of a set of "CG Special Reports" and (2) establishing fact sheets and briefing papers as formal GAO products. We also propose some regrouping of present products. The first of these changes will distinguish special reports on major issues of public policy,

overriding impact, or public concern from those on less urgent issues. The second would better enable us to respond to requests more rapidly and to close out some jobs requiring a written product without having to produce a full blue book. Our proposed product line is listed in the box (p. 27) and illustrated in figure 18.

Recommendation 4-2. Encourage Experiments with Formats

Using mostly standard reports and briefings we may be missing communication opportunities. We may be able to communicate better or reach a wider audience by making our messages more attractive or more quickly and easily available.

Our GE data system may provide a particularly convenient way to speed and simplify access to our results. If our system were "linked" with the comparable Hill system, a Hill staffer could find an abstract of any report we have done since 1976, along with the status of all our recommendations, by sitting at a terminal and typing in a key word or two. The abstract could be read at the terminal or printed out to provide a hard copy. The data is in the system, requiring only an electronic

link and access codes to be available at Hill terminals.

We also recommend experiments with putting full texts of reports into the data base or with video programming through the House/Senate TV system, another way of quickly presenting information.

How We Produce Our Reports

Quality publishing is essential if our reports are to communicate effectively. Poor writing, inadequate design or production standards, and insufficient management focus on publishing undervalue a message we may have spent hundreds of thousands of dollars to develop.

Having established our product line, we still need to ask if our production policies, procedures, and institutions are assuring quality reports. Interviews and comparisons of our publishing operation with other agencies' and with industry standards suggest we have much to improve, especially with respect to quality standards.

Use of Writer/Editors

More effective use of the writer/editor on integrated audit teams

PROPOSED GAO PRODUCT LINE

Product Line

Comptroller General Special Reports — Formal Reports — Financial Audits

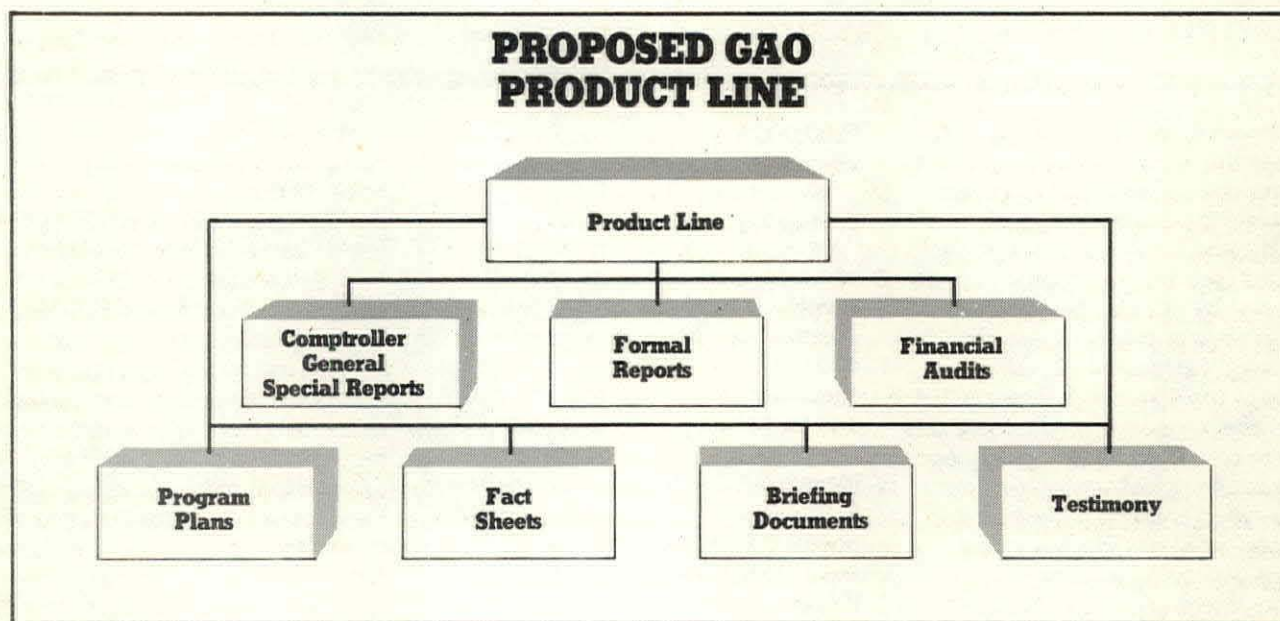Program Plans — Fact Sheets — Briefing Documents — Testimony

Figure 18

(as described in chapter 2) can improve the quality of our reports. But accomplishing this will mean (1) bringing writer/editors in earlier and involving them more constructively in jobs, (2) sharpening their skills, and (3) using writer/editor skills as important criteria in the hiring and promoting of staff.

Early Involvement in Jobs
GAO's 57 writer/editors were centralized until 1978 but were then dispersed throughout the divisions and regions to involve them more in the jobs they worked on. This has produced some of the desired effects, but three problems remain. First, there are no agency-wide editing standards; second, early involvement in jobs has not been effectively implemented; and third, some editors lack necessary skills or training. Most writer/editors still see drafts only at the end of the writing and reviewing process and do only copy editing—corrections, punctuation, etc. Although experiences with early involvement in jobs by skilled writer/editors working with open-minded evaluators have been quite encouraging, this practice is the exception rather than the rule.

Editing Skills And Career Ladder
Lack of skills among some writer/editors appears to be partly responsible for their late and minimal use. About one-third have no formal training. Furthermore, we were told that the most skilled writer/editors leave editing through conversion to evaluator positions. They tend to leave behind in the writer/editor positions new employees and those who cannot obtain promotions within GAO.

This turnover was a serious concern of the task force in Phase I, but further research suggests it is actually a healthy sign. We initially thought that the writer/editor career ladder, which ends at GS-11 (or -12 for managing editors) peaked too soon, causing premature departures. But comparison of GAO editors' salaries with national averages suggests no economic need to extend the editorial career ladder.*

Instead we feel GAO should accept the movement of qualified people from the writer/editor to the evaluator line as an appropriate career path for good people who can do more for GAO than one specialty. The real challenge of the turnover is to recruit skilled replacements for those who can grow and improve the qualifications of those who cannot. These reflections prompt the following recommendation:

Recommendation 4-3. Improve the Use and Quality of Writer/Editors
Like other specialists, writer/editors should be members of the integrated teams we discussed earlier, and treated as such. The Evaluator-in-Charge or Project Manager responsible for the written quality of a job should, when the job calls for it,** use a writer/editor as a member of the multi-disciplinary team (or, in some cases, as a rewriter). Specifically, GAO should
■ Articulate a policy that writer/editors are a valuable and integral part of our quality assurance process at the division level through their assistance to audit staff,
■ Endorse the movement of qualified writer/editors into evaluator positions as an appropriate career path,
■ Use the writer/editors at least as early as the pre-drafting story conference when needed,
■ Use them as rewriters when products require it before they can be released,
■ Make certain our standards and recruiting policy will hire only skilled writer/editors, and
■ Establish an interim training program for writer/editors whose skills need improvement.

Standards
Weak or nonexistent design and production standards cause problems ranging from lack of visual identity in our product line to poor appearance of our typography. To see present or potential problem areas, one has only to compare the minimal, and very

general, advice given in Chapter 17 of the GAO Report Manual with the specifications that could be provided by a full design manual, such as the one in use at the Environmental Protection Agency (figure 19). A manual would specify and standardize design matters which are now left to individual choice (e.g., size, layout grids, use of graphics). It would also specify production standards (e.g., cover color, bindings, the blackness of our ink, and the quality of photographs).

Design Standards
Lack of graphic design standards leads to problems in maintaining consistent quality, presenting a coherent GAO image, and minimizing costs. Most important, this void leaves each auditor to make communication decisions that may exceed his or her level of competence in communications techniques.

Inconsistent Design Quality.
Presently, so many features of our products' appearance are left unspecified that every EIC becomes a part-time graphic designer. In products other than reports, almost the whole design may be left to the division or individuals involved and will be no better than the skills of those individuals. Often, even when Graphics is consulted (usually too late), it is merely to execute a design someone else has chosen.

No Agency Image.
Because the design of our products is not standardized, and because our product designs have evolved separately, not as part of an overall

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*GAO paid writer/editors an average of $24,000 in FY82. The agencies we interviewed paid about $25,000 for slightly more demanding work. A BLS study gives the range for experienced writer/editors nationwide as $17,000 to $31,000. This latter figure probably refers to rewriters, a more skilled group of writer/editors.

**For example, particularly tough or complex presentations, or when other staff cannot write well enough.
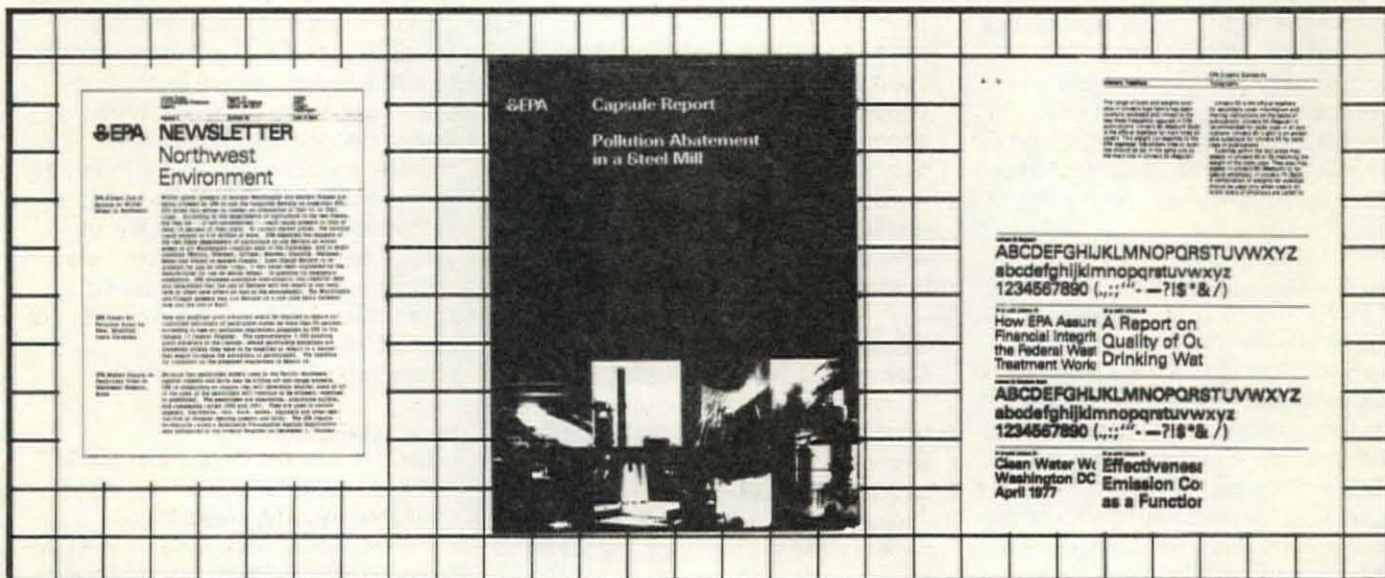
communications strategy, the image we present is not visually coherent (figure 17). The blue cover is our only recognizable agency characteristic; our other products have no GAO look and no family resemblance. For example, we do not even have a common way of reproducing "GAO" on our covers.

Higher Costs.

Design standards would save money both by eliminating the need to completely design every product and by mandating cost-effective designs to begin with. In 1976, GPO estimated that an agency developing a design standards manual would save 15 percent on publishing costs.

Production Standards

Lack of production standards causes problems in (1) maintaining the quality of our printed products, (2) getting the best and fastest service for a given cost level from GPO contract printers, and (3) determining the most cost-effective mix of in-house and external printing.

Quality Problems.

Several problems with printing quality caused us concern, including inconsistent cover colors, ragged edges due to lack of trimming, print-

through because of poor paper stock, frequent smudges and stray marks on pages, and poor reproduction of photographs. Responsibility for these problems is divided among the divisions, Publishing Services, and the printers, but we believe the underlying cause is lack of standards, leading to inadequate specifications in our GPO printing contract.

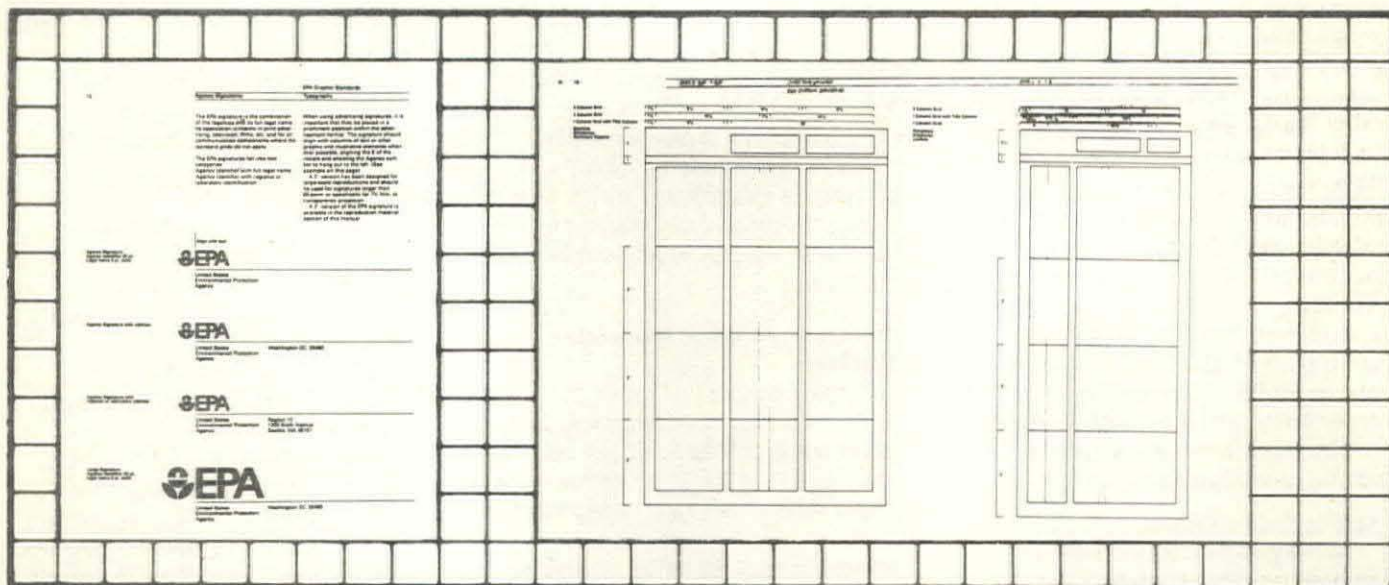### In-House and Contract Printing: Finding The Best Mix.

Presently, about 35 percent of our reports are contracted out. The Joint Committee on Printing's recommendation that we contract out more work—and our own report "Agency Printing Plants: Choosing the Least Costly Option" (PLRD-81-31), which recommends that all agencies rejustify their in-house printing—make this a concern. The task force did not include a printing expert, and did not have time for a complete analysis, but our investigations suggest more use of contract printing by GAO may be both faster and less expensive than in-house printing.

Turnaround Time.

The in-house print shop requests that GAO evaluators allow 10 days for printing requests. In our report sample, printing required an average of 6 days. Our present GPO contract allows 5 to 7 days for most work, but 3 days for 10 percent of our work. We can, however, write our contract to call for any percentage we want to be done in 3 days or less—even overnight at a premium rate. We would need, of course, to determine how many of our reports need quick turnaround and how much it would cost. We might also consider the feasibility and costs of making our printing plant more able to respond to rush jobs, perhaps by contracting out other work to clear the decks.

Costs

Without a standards manual, we cannot make precise cost comparisons, since we cannot tell exactly what we would want to contract for. But a rough comparison of present in-house vs. contract costs suggests contract printing costs about half as much ($6.14 per 1000 pages as opposed to $11.56 for in-house). The issue is complex, however, and a series of questions needs to be answered

before GAO can reach definite conclusions. What is the marginal cost of printing a report once we are committed to a given level of overhead? (Does it cost only a little extra or are variable costs such as paper and overtime much higher than fixed costs such as salaries and space charges?) To what extent would eliminating in-house printing merely replace printers with contract specialists? How much in premium prices would we wind up paying contractors for unexpected rush work? Answers to these questions were not fully possible in the task force's timeframes. Such analysis requires considerable expertise. We therefore make the following recommendations.

Recommendation 4-4. Design Effort

Undertake a project with a design expert to (1) array our product line, (2) develop a standards manual (including specifications for typefaces, layout, and all the features we need to know to produce a report), and (3) implement the following changes in our formats:

■ Develop a simple, uncluttered cover, including a GAO logo to replace the seal,

■ Make the report title the dominant visual element,

■ Remove the cover summary from the cover (consider moving it to the inside cover, transmittal letter, the digest, or dropping it),

■ Choose a GAO blue and standardize it,

■ Typeset the report,

■ Decrease the line length through using a format with two or more columns, and

■ Develop a caption format that clearly identifies the hierarchy of captions.

Recommendation 4-5. Printing Effort

We can get better quality and timeliness on contract printing through tighter specifications. According to GPO and our sister agencies, precise specifications would allow us to solve our production quality problems—such as variations in cover color—without an expensive upgrade of the whole contract. As for timeliness we can specify whatever turnaround time we want at minimum premiums (even overnight). We therefore concluded (although we did not do a formal audit of the contract) that the key to faster, higher quality printing from GPO is

more expert and precise contracting. Therefore, we recommend that GAO use a printing expert to examine

■ Quality standards in our GPO contract,

■ Quality standards and control over camera copy, and

■ Quality, cost, and other implications of changing the proportions of printing we do in-house.

Organization of Publishing Responsibilities

GAO presently lacks a person with the necessary combination of special expertise, management influence, and narrowness of responsibility to be able and committed to advocating and focusing the quality of our printed reports.

Placement and Responsibilities of Publishing Staff

Most similar organizations with large-scale publishing needs have a centralized publishing unit reporting directly to a high level official, such as a vice president or assistant secretary. In some organizations, that official is responsible for all external communications. At GAO, however, publishing is part of the Office of

Administrative and Publishing Services, a part of the Office of General Services and Controller (GS&C) (figure 20).

Because OAPS has many functions other than publishing, key positions may be filled by people without broad experience in publishing, and publishing professionals may find they have to divide their time between publishing and other concerns. The manager of Printing, for example, is also responsible for the mailroom, among other functions. Moreover, no one in OAPS has professional experience in all three of the office's publishing functions—graphics, writing, and printing.

Quality Control Diffused

Quality control is uncertain in publishing. The divisions are responsible for providing the camera copy for reproduction of reports; OAPS has no authority to reject copy that will reproduce poorly, and little chance to assure quality by participating early in the preparation of the report. For example, if a photo in the division's copy is unsuitable for reproduction, Graphics can only suggest to the division that it be replaced. Unfortunately, it is often too late, at that point, to obtain a better picture. The problem is exacerbated by the lack of standards, since the division staff have no criteria against which to measure the picture.

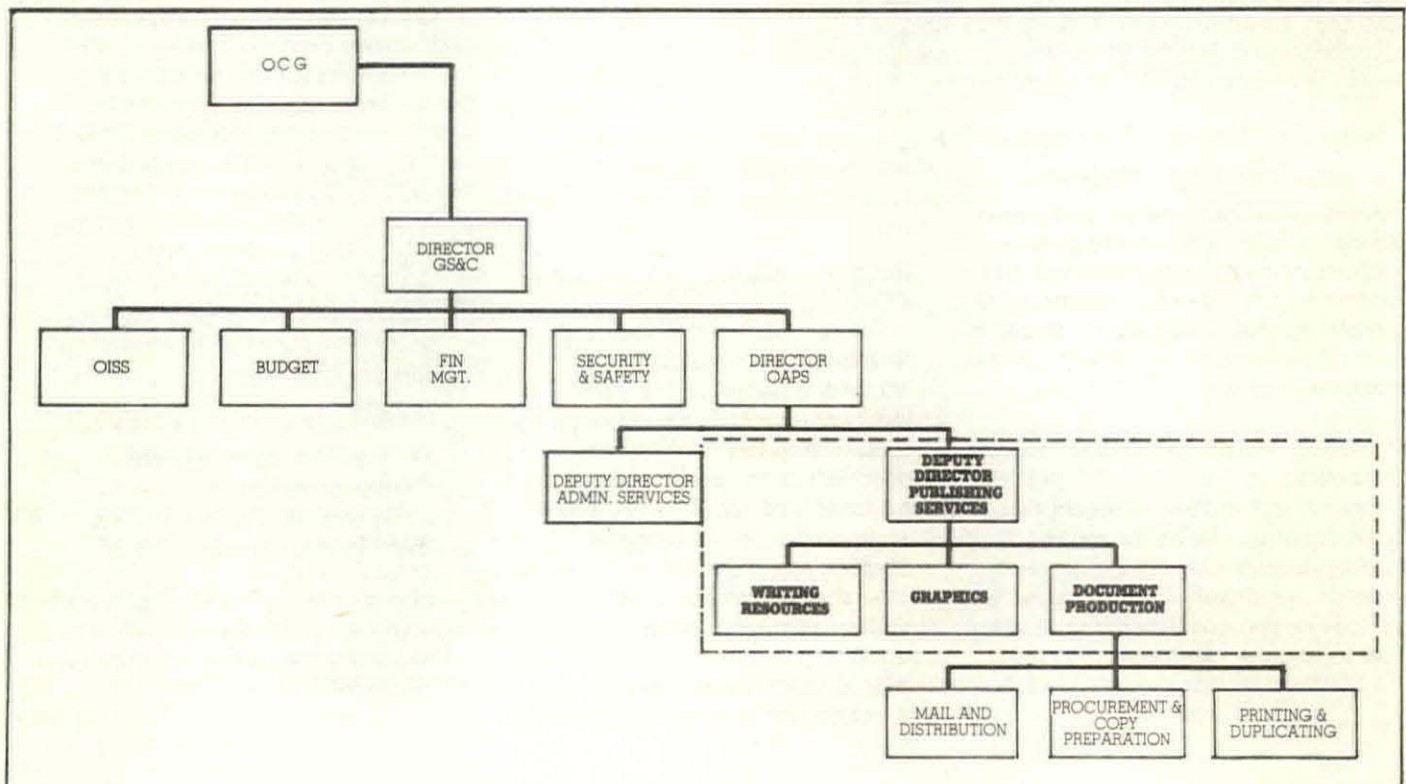### No Support for Use of Presentation Specialists

In the example just given, the problem would have been less likely to occur if a graphics specialist had been involved in the job at an earlier stage. There would have been adequate time to get or take a better photo or to substitute another better alternative. In the recent past, however, budget and procedural support for early involvement of graphics specialists has been limited at best.

Recommendation 4-6. Centralize Publishing Responsibility

Because of the importance of communication to GAO, we recommend establishing a senior management official for publishing services with authority to

- Develop and implement a comprehensive GAO communications policy,
- Oversee the design standards effort described in Recommendation 4-4,
- Expand the use of graphics and graphic designers,
- Clarify criteria for choosing in-house or contractor printing, and supervise the overall assessment of our printing contract described in Recommendation 4-5;
- Recruit publishing professionals, including writer/editors as described in Recommendation 4-3, and
- Act as a clearinghouse and catalyst for report format improvements and new ideas.

Figure 20

Assessing and Improving Productivity

This report asserts that GAO must improve product quality and timeliness, staff skills, and communications in order to adequately meet the challenges of the 1980's. This requires management tradeoffs among our goals of quality, timeliness, and the efficient use of limited resources. A productivity management system can help monitor the effects of these tradeoffs and identify changes that can improve performance.

Because our work tends to be unrepetitive and non-quantifiable, developing a system for measuring productivity changes poses special problems. Nevertheless, we believe that it is feasible and that the Office will benefit from a productivity program.

Why GAO Should Adopt a Productivity Program

Although efficient use of resources has always been a necessary goal for public sector managers, emphasis has substantially increased in recent years.*For GAO in particular, there are three major reasons to establish such a program.

Shrinking Resources and Raised Expectations

Like all government agencies, GAO faces a period of austerity over the coming years. Yet the Office is committed to significantly improving the services we provide. To do so, we will have to improve productivity.

Congressional Interest

During GAO's fiscal 1981 appropriations hearings, the Subcommittee on the Legislature of the House Committee on Appropriations requested data on GAO staff productivity and the managerial use of productivity measures. We could not fully respond then, and we can expect other such requests in the future.

GAO's Role as a Government Management Model

In approximately 140 GAO reports issued over the last decade, we have urged other agencies to measure and/or improve their productivity. Our general practice of applying to ourselves the relevant aspects of recommendations we make to others, plus our special responsibilities for effective and efficient government operations, impels us to heed our own advice.

How GAO Managers View Productivity

We found differing definitions of productivity among GAO officials, although all appear to recognize the concept as a relationship between sources consumed and the resulting output of services or products. While all agree on the need to improve productivity, GAO managers expressed concern that our products are so dissimilar from one another that no productivity measures can be developed which will be valid for comparison and analysis. They pointed

out that GAO products can vary substantially among divisions, among groups within a division, and even from one assignment to the next for any given group.

Programs in Organizations Similar to GAO

Despite internal concerns about developing acceptable measures, we found a number of productivity measurement and improvement programs in organizations which perform work similar to GAO's. Audit groups in the Departments of Housing and Urban Development and Health and Human Services, the Army, and the Navy have (or are developing) productivity programs. Outside the government, some consulting firms — such as Arthur D. Little — also have productivity improvement programs. They define productivity in a manner specific to their purpose, using performance characteristics such as efficiency, quality, timeliness, and (most notably in private sector firms) cost performance.

Previous Efforts at GAO

GAO's past actions to measure and improve productivity have been sporadic and uncoordinated. Most productivity improvements have

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*The Civil Service Reform Act of 1978, for example, clearly states the need for high productivity performance.

accrued as secondary results of other changes—such as electronic work stations, "teams," and AMPS—rather than as the result of explicit attention to any productivity improvement program. However, in 1976 a productivity system was developed for the Field Operations Division. It measured efficiency, timeliness, and performance against goals for each regional office and for the division as a whole. The program was terminated about two years later, when the "teams" approach was implemented in GAO.

Using a second system — more recently developed for the Accounting and Financial Management Division (AFMD) — GAO's Productivity Group (in AFMD) has compiled 1980 and 1981 productivity information for GAO divisions. This is currently awaiting possible expansion.

In addition, a program to assess and improve productivity is underway in the Office of General Services and Controller (GS&C).

Defining Productivity for GAO

Most commonly, "productivity" is used synonymously with "efficiency," and is expressed as the ratio of output of goods to input of resources used. In this definition, quality and timeliness of products are assumed to remain stable.

We believe, however, that a program acceptable for GAO must actively provide for changes in *timeliness* and *quality*, within the concept of productivity, rather than limiting the concept to efficiency. As shown in figure 21, we propose that measures of all three be developed and used together as a group — a *market basket* of productivity indicators — leaving to management's good judgment the necessary comparisons and tradeoffs between changes in quality and/or timeliness and changes in efficiency over the same period of time.

While a single productivity number combining efficiency, quality, and timeliness could be developed, that would require weighting the three indicators relative to one another. We believe it would be a mistake to try to combine these three indicators into a single number.

Recommendations

Recommendation 5-1. Establish a Productivity Program at GAO

We recommend that GAO establish a productivity improvement program. To provide the necessary information, a productivity measurement system must be developed and implemented.

Recommendation 5-2. Use a "Market Basket" Definition of Productivity

We recommend that the productivity system use a *market basket* approach, including measures of quality, timeliness, and efficiency. (Additional indicators should be used where appropriate.) The measurement issues and tradeoffs discussed in the box should be decided before implementation.
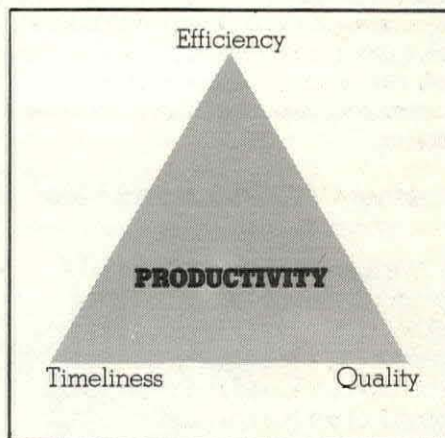
Figure 21

Recommendation 5-3. Assign Program Development to a Specific Organizational Unit; Reserve Operations to the Divisions

Many of the firms we interviewed stressed the importance of establishing centralized responsibility for productivity activities. In addition to demonstrating top management's commitment to improving productivity, a central unit can provide an identifiable source of information and assistance to all management levels.

In light of GAO's history on productivity, we recommend establishing a central unit with responsibility for system implementation. Specifically, the central unit should

- Define and establish the productivity measures and data to be used,
- Provide technical assistance to divisions for implementing the program,
- Stimulate organizational awareness of and receptivity to productivity improvement, through education and encouragement of ideas, and
- Assist divisions in developing improvement plans.

Operation of the program — setting division goals for productivity improvement and developing the necessary management changes to address problem areas — should be the responsibility of the divisions.

Measurement of Productivity Characteristics

Numerous measurement decisions must be made before the productivity recommendations can be implemented. In discussing productivity, the task force developed the measurement recommendations in this box.

Input Resources

For GAO's purposes, "input" — the denominator of the efficiency measure — can be staff resources, measured in staff days expended on a job. Three factors must be accounted for:

Organizational Unit.

Since our jobs are monitored by region or division or GAO-wide, the staff data must be available in these groupings.

Quality of the Resources.

The "quality" of the resource — the effect of more experienced staff—must be reflected in the input measure. This is adequately accomplished by weighting according to grade level.

Direct or Indirect Staff Days.

It is valuable to have both direct and indirect efficiency measures.Thus, staff expenditures must be collected separately for direct job charges and for charges that do not directly result in product outputs.

Output Product

"Output" — the numerator of the efficiency measure is the number of reports and other products developed. Counting outputs is relatively simple, but accounting for the differences among them is not. Each requires weighting, based on the investment of resources to produce it, so that changes in product mixes do not appear to show changes in efficiency. Possible approaches include length of report or number of regions involved.

Quality

Measurement of quality is difficult under any circumstances. We believe qualitative variables can be used successfully, although quantifiable ones are most often preferred. Some of the quality criteria the task force developed can be measured (see chapter 2) and may be useful for this purpose. It also may be possible to use the scores from existing systems, such as the PASS scores assigned by the report review staff within the Office of the Comptroller General, to measure quality for these purposes.

Timeliness

Timeliness may be measured by determining how much calendar time has elapsed from the beginning to the end of an assignment or to interim milestones. Thus, total job length is one measure of performance which can be used (e.g., a 10-month report versus an average of 18 months). A second measure involves comparison between total elapsed time on a job and the budgeted time. We believe that both types of timeliness measures are necessary. Together they allow managers to track progress in decreasing total time to perform a job and in improving performance against budgeted schedules.

Periodicity of Productivity Measurement

The periodicity of computation—whether monthly, quarterly, semi-annually, or annually—is another decision to be made. Factors which influence such a decision include number of jobs being measured, length of jobs, and whether milestones reached or jobs completed is the focus of measurement. Because many GAO jobs take more than a year to complete we recommend a yearly interval for the measurement computations. A long period, such as a year, has the added advantage of more accurately reflecting the average workload of the unit being measured.

GAO