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## THE GAO REVIEW



#### **FALL 1973**

## **Contents**

Evaluating the Effectiveness of Federal	
Social Programs 75/6/14 ELMER B. STAATS	1
How To Identify Management Problems CHARLES D. MOSHER	. 8
The Wharton-GAO Information Systems Program PAUL E. ARMSTRONG	17
A Market Perspective of GAO— Insights and Opportunities 70/6/6  JOHN E. CASS	25
Idea Generation in GAO DAVID J. KROMENAKER AND NEAL P. CURTIN	31
A Cooperative Effort With a State Society of CPAs JACK L. BIRKHOLZ  731611	36
Procurement Commission Recommendations on Competitively Awarding Government Contracts RICHARD R. PIERSON	
	42
Evaluating Results of Government Programs HEBER D. BOULAND	48
Economics of Inventory Control  ARNETT E. BURROW AND LARRY E. HODGES TOTAL	را <sub>55</sub>
A Reflective View of the GAO  ROGER W. HEYNS—REMARKS AT GAO HONOR AWARDS CEREMONIES	63
The Watchdog Reports	66
From CAO Speeches	70

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#### News and Notes

New Booklets on GAO Improving Auditing Standards	73 73 74
Southeastern Government Auditors Form Communications Forum Earthquake Research Effectiveness of D.C. Outpatient	74 75
Health Centers	76 76 77
Hearings and Legislation	78
GAO Staff Changes	83
Professional Activities	108
New Staff Members	119
Readings of Interest	
The Practice of Modern Internal Auditing	124

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## **Evaluating the Effectiveness of Federal Social Programs**

Some of the difficulties of evaluating social programs are discussed in this article which is based on a speech delivered by the Comptroller General before the National Capital Area chapter of the American Society for Public Administration on January 17, 1973.

Assessing the effectiveness of a Federal program is by no means a clearcut task, particularly in the areas of social action. With rising Federal costs coming under increasing scrutiny, the need for dependable program evaluation is greater than ever.

A definition of program evaluation generally agreed upon asks this question: "Is the program achieving the objectives sought by Congress and the executive branch and is it achieving it at the lowest practicable cost?"

Arriving at a satisfactory answer presents difficulties since the approach taken can influence the outcome tremendously. Whether the assessment is based on a political test or that of a more objective researcher, the results are difficult to pin down. In the social area few observers approach the task with neither purely political nor non-political biases.

Whether it is good, bad, or indifferent, program evaluation is going on all the time. The challenge is to provide decisionmakers with the best analysis possible within the current state of the

Program evaluation is at the heart of planning, programing, and budgeting—if one wants to use evaluation to help select new or forward programs which are most likely to produce a cost-effective result. GAO's ability to make such projections, however, depends heavily on its assessment of ongoing programs.

This is one of the reasons why GAO stresses the need for adequate audit and evaluation as an integral part of program administration. It is the agency to which the Congress turns principally for information on program results—and properly so. Increasingly Congress is providing specifically for such evaluations.

The Bureau of Social Research estimated that expenditures for such evaluation in fiscal year 1971 were in the range of \$400 million to \$1.1 billion. This is in addition to agency evaluations performed in-house, by congressional committees, the Congressional Research Service, and GAO.

In GAO, we are concerned increasingly with program evaluation or, as some prefer, with auditing of program results. This category of work now represents about 30 percent of the work of our professional staff of 3,150.

The Legislative Reorganization Act of 1970 pushed us in this direction by specifying that we conduct studies of the costs and benefits of Federal programs, either on our own initiative, or at the request of a committee of the Congress. The responsibility has been implicit all along but in recent years we have been emphasizing program evaluation more.

In the process we are learning more and more how to make them more effective. This includes several factors, such as:

- -Experience, learning by doing.
- —Building an interdisciplinary staff. Twenty percent of our professional staff is now drawn from disciplines other than accounting—economics, statistics, industrial management, systems analysts, engineering, etc. And, I should emphasize some of our best analysts have come from accounting backgrounds.
- —Using extensively consultants in various fields, and by contracting out to a limited degree.
- —The reorganization of GAO in April 1972 on programmatic and functional lines. One of these divisions, for example, is the Manpower and Welfare Division which concerns itself with social programs.

- —Through training programs such as NAPA Seminars on program evaluation in specific areas—last year: there were three in education, health, and welfare. Three more are set for this year, including law enforcement and environmental protection.
- —Finally, systematic efforts to take advantage of ongoing or completed work by such organizations as The Urban Institute, the Brookings Institution, and others.

#### Problems in Evaluation

Formidable problems confront GAO and others evaluating social programs. Two of these seem to occur no matter what program is being reviewed. The first problem is the lack of clearly, specifically stated program goals and objectives. In many programs neither the legislative process nor the subsequent administrative process developed goals and objectives of necessary clarity. If intended accomplishments are not stated there is nothing against which to measure program outcomes.

The second problem is the lack of usable program performance data. This is not entirely the fault of the legislative or administrative process. In social programs there are few standards for measuring performance. Planners and managers of programs attacking social ills do not have an over-abundance of information on how to achieve results most effectively.

I recently wrote the Congress and the Office of Management and Budget suggesting that improvements in evaluation could be brought about, in part, by developing legislation that is specific. Too often the Congress requests periodic reports from agencies without determining whether the reports will contain the information it needs. Prime responsibility for making the evaluations rests of course with the agencies administering the programs, but we believe that Congress should attempt to specify the kinds of information and tests which will enable these agencies, GAO, and the Congress to better assess how well programs are working and whether alternatives may offer greater promise.

An example is the evaluation of education programs. As with other social programs, education legislation contains little in the way of specific program objectives. Compounding this problem is the tendency of managers and administrators to state program objectives in extremely fuzzy terms or in terms of the number of students enrolled or grants made, rather than expected grade-level gains. Also little is known at present about what indexes really show achievement in education.

Educational evaluation has been hampered also by the resistance of the education profession (teachers, principals, and superintendents) to the whole idea of evaluation. Part of this resistance can be attributed to the negative image of evaluation. Rather than viewing the evaluation as an instrument to help people do a better job, many in the profession feel it entails finding out who is not performing well and should be dismissed. Another problem is the lack of uni-

formity of local recordkeeping and the inadequacy of the data base at all levels of program operation.

GAO reviews in two education programs, Follow Through and Upward Bound, point up these problems.

#### Follow Through

Follow Through is a comprehensive education program for disadvantaged children in kindergarten through the third grade who were previously enrolled in Headstart. Congress created Follow Through in December 1967 because early Headstart evaluations showed that the gains made by Headstart graduates soon dissipated if not reinforced in the primary grades. Follow Through, which is administered by the U.S. Office of Education, makes grants to local educational agencies to provide to eligible children and their families education, health care, nutrition, social, and referral services. Direct parent participation in conduct of local programs and community involvement are program requirements.

Follow Through is more than just a service program, however. It is also an experimental program in which 22 new educational approaches to teaching disadvantaged children are being evaluated nationwide. The purpose of this research is to disseminate information to school administrators on successful teaching methods for children from low-income families. The research findings will also be used to formulate future Federal education policy in the primary grades.

To evaluate the program, we exam-

ined pupil achievement, the effectiveness of the delivery of services offered by the program, the extent of parent and community involvement in the program, coordination with Headstart, compliance with eligibility and other requirements, and program administration. We also analyzed the program's research effort, which today is its main emphasis even though the congressional intent for the program is to reinforce the gains of Headstart children. Our purpose for this review was to report to the Congress on the program's achievement or lack of it and to recommend needed improvements.

We used a case-study method to make the review. We went to nine projects in nine States to determine how these projects performed in the areas evaluated. We reviewed small, medium, and large projects; urban and rural projects; and projects that represent a cross section of the experimental educational approaches to teaching disadvantaged children.

One general problem we faced and continue to face is that educational measurement experts differ widely on the methods and tests to use in assessing pupil achievement and the impact testing problems frequently have on test results. Questions, such as can we expect children from low socioeconomic families to score the same on achievement tests as children from middle socioeconomic families, or how much do test conditions affect test results, are not likely to be answered uniformly by people knowledgeable about educational measurement. Because of this lack of uniformity of what is proper or correct, answers to the questions must be assumed. However, studies based on assumptions are wide open for criticism, forcing program managers to decide for themselves whether the results require program changes or a new study.

#### **Upward Bound**

The Office of Education's Upward Bound program is designed to generate the skills and motivation necessary for success in postsecondary education among young people from low-income backgrounds and inadequate secondarv school preparation. Upward Bound is designed to repair a student's faulty secondary school preparation by means of remedial instruction, altered curriculum, tutoring, cultural exposure, and encouragement so that the goal of Upward Bound-admission and success in posteducation — can secondary achieved. The program has grown from 17 projects and \$2.4 million in fiecal year 1965 to 378 projects and \$33.6 million in fiscal year 1973.

The program focuses on 10th and 11th grade students and consists of two separate but interrelated components: (1) a summer component, usually 6 to 8 weeks of intensive academic and personal development through a residential program at a college or university and (2) an academic year component usually involving Saturday classes or tutorial/counseling sessions or cultural enrichment activities.

In determining the effectiveness of

the Upward Bound program, the Office of Education has utilized the criterion of college enrollment of Upward Bound graduates. On this basis over 70 percent of all Upward Bound graduates enroll in college—an apparent success. Individual projects, however, do not follow up on students once they leave the project to determine their success in achieving a postsecondary education.

After talking with OE officials and project directors, however, we determined that this criterion really isn't an adequate measure of program effectiveness since many influences outside of Upward Bound can affect a student's success in completing postsecondary education. The OE officials agreed with us that the proper criterion for most accurately measuring the program's effectiveness is the ability of the individual Upward Bound projects to provide students from the proper target group with the necessary academic background for them to succeed.

#### Social Services

Our evaluation of the impact of social services on recipients of aid to families with dependent children is designed to provide Congress with information on the effect of a current program.

Congress first authorized Federal cost sharing for the Social Services program in 1956. HEW, however, has been unable to tell Congress what the impact of the program has been on welfare recipients. The lack of data on program accomplishments led the Sen-

ate Appropriations Committee to observe in 1972 that

—the use of this source of Federal financing is out of any reasonable control: HEW cannot even describe to us with any precision what \$2 billion of taxpayers money is being used for.

The purpose of our review was to provide Congress with such information. We asked two basic questions:

- —was congressional intent achieved, that is, did social services help welfare recipients achieve self-support or reduce dependency and
- —was it realistic to expect that intent could be achieved given the present nature of most social services.

Neither the Congress nor HEW, however, developed criteria by which to measure the success of the program. Could we say that the program was a success if 4 percent of recipients who achieved self-support or reduced dependency did so because of social services? Should the number be 20 percent? No one could say.

We viewed our role, therefore, as a provider of information on the impact of the program. We believed that by using such information the Congress, HEW, and the public can decide whether the results are worth the estimated expenditure of \$2.5 billion in fiscal 1973 for social services.

Since the impact of the program had not been measured previously, we had to design an approach to generate data so an assessment could be made.

In Baltimore, Denver, Louisville, New Orleans, and Oakland we selected two samples of Aid for Dependent Children cases:

-one from the universe of all cases

- closed—that is taken off welfare—during the past year and
- —one from the universe of all open cases—those receiving welfare during the past year.

For those people who got off welfare, we determined why and whether social services helped them to get off. For those people still on welfare, we determined whether they had a reduction in their grant, if so why, and whether services contributed to that reduction. We did this through analysis of case records and by interviewing caseworkers and recipients. Briefly, we have determined that:

Social services have helped many AFDC recipients to overcome and cope with specific day-to-day problems (i.e. lack of clothing or food and need for medical care) which helped to strengthen their family life and to increase their confidence in themselves. These benefits are worthwhile and essential if recipients are to better adjust to their environment and sustain or improve their present level of life by obtaining their physical and social needs. Over the long run these benefits-which usually result from maintenance-type services-are necessary if the individual is to eventually reach a point where he can benefit from developmental services.

Most welfare officials whom we interviewed at the Federal, State, and local level stressed that the primary purpose of social service is to achieve those goals which can be provided by maintenance-type services. While they recognized the importance of having

social services assist individuals to achieve self-support, they did not believe services could be a major factor in helping recipients to enter the labor force.

Our work indicated that services had only a minor impact on directly helping recipients to develop and utilize the skills necessary to achieve reduced dependency or self-support.

- —Most services are not of the type that can directly enable recipients to achieve self-support or reduced dependency.
- —Some recipients, with a potential to get off welfare, received services not designed to help them realize that potential.
- —The degree of developmental services received was not sufficient to enable recipients to fully develop their potential—most developmental services involved counseling or referrals.

Moreover, certain barriers, such as high unemployment rates or lack of public service jobs, tend to minimize the effect that services can have on helping recipients to achieve reduced dependency or self-support.

Other questions in the welfare program that we believe should be subjected to evaluation, be it by GAO or others, are:

- -whether welfare payments are large enough to relieve poverty,
- ---can work be substituted for welfare to relieve poverty, and
- —can incentives be improved to get off welfare.

#### Conclusion

As you can see by the examples I've discussed, the assessment of a program's effectiveness is a difficult task.

Our concepts and our methods of accounting for the results of social programs are primitive at best. We need to develop methods of accounting that not only will clearly show what we invest in these programs but what is accomplished in relation to what was sought.

We need accounting techniques to measure the differences in social conditions. We need to know what happens to people affected by certain programs as compared to people who are not affected.

No one doubts the practical difficulties of assessing the cost and benefits of social programs and of evaluating the impact of these programs in many situations. Those people, at all levels of government, responsible for program formulation and evaluation system design must work at solving these problems to provide program managers with information they can use to evaluate success and determine whether approaches or funding levels need to be revised.

We in GAO are continuing to work on new evaluation methods and techniques to improve our ability to assess educational effectiveness and enable us to continue to deliver meaningful information to the Congress.

In the final analysis, the hard choices will be political choices, but political leaders and the public need increased awareness of the arguments pro and con of the choices that must be made. Those who want to do right should at least be equipped with good information.

#### Importance of Statistics in Evaluating Social Programs

\* \* \* since (a) practically all data needed for decision making in the social arena are statistics and result from statistical sampling, and (b) the interpretation of statistical data, the analysis of that data, and the method of its collection cannot be separated from one another, a knowledge of statistics is essential for "social reporting." Statistics is the science and art of dealing with variation in such a way as to obtain reliable results. To apprehend the rationale of a piece of statistical arithmetic is not synonymous with understanding statistics. Accountants lack that understanding.

M. E. Francis
Statistical Consultant
World Health Organization
The Accounting Review, April 1973

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### How To Identify Management Problems

This article summarizes the results of a recearch study to develop a problem identification system for Government auditors.

The basic objective of GAO audit work is to promote constructive improvements in Government operations. GAO's audit approach is to review the organization, management, and control of each agency system; to identify any weaknesses or problems; to report on the conditions found: and to make recommendations for improvements. Problem identification is only part of our work, but is very important. Unfortunately, little guidance is available in the published literature to help with this task. Almost all the literature related to problems is concerned with how to solve problems that have already been identified. Only a few books and periodicals give even a cursory treatment of how to identify problems or suggest that individuals should actively search for them.

## What Is a Federal Management Problem?

Most studies in the literature pro-

vide vague definitions of the term "problem" if they attempt to define it at all. They refer to information or actions that seem questionable or appear abnormal. A few sources refer to specific types of management problems, such as improper expenditures, failure to comply with laws, inefficiency, and ineffectiveness.

In addition to the above definitions, some authors question the importance of problems and strongly recommend that management emphasize the identification of opportunities. Rather than use both of these words and run the risk of confusing semantics, in this article a Federal agency management problem is a deviation from the most effective and efficient way of operating Federal programs. If a law or regulation is not being complied with or if better overall strategies are identified for meeting the purposes of existing laws, problems have been identified.

Mr. Mosher, a supervisory auditor in the Seattle regional office, joined GAO in 1965 and served 2 years in the Far East Branch. He has a B.S. degree from Oregon State University and an M.B.A. degree from Portland State University.

#### Scope of the Study

This study was a descriptive survey which identified and recorded various methods used for identifying problems. The research involved a study of literature related to problem identification and interviews with individuals who were knowledgeable about the psychology and methodology of problem identification.

A total of 58 different people filled out questionnaires or were personally interviewed. The group consisted of 20 GAO auditors, 10 HEW and HUD auditors, 9 private business consultants, 9 university professors, 6 Federal agency managers, and 4 medical specialists.

Many of the individuals contacted were initially unable to tell how they identified problems. They admitted that they had never consciously thought about this subject. After a limited amount of preliminary discussion, however, almost everyone thought of personal approaches that they had been using.

#### **Project Results**

The results are summarized in the following two sections. The first section explains how general criteria can be developed and used as a basic starting point in identifying problems. The second section presents a simplified system for finding problems.

#### The Development of General Criteria

Everyone continuously uses criteria. On the basis of experience, they intuitively develop assumptions of reality and models of the way things should be done and use these criteria models to analyze day-to-day activities. Few people are aware of the criteria models they are using. Similarly, auditors typically identify problem indicators, such as questionable information in reports or agency activities that appear inefficient, without being fully aware of the criteria they are using. One of the most important ways of increasing problem sensitivity is to put in writing the key assumptions and models being used so that they may be better understood and actively updated.

As noted in chart 4 on page 15, the various elements of a problem can be developed in any order. Many auditors first look for bad effects caused by problems. The identification of appropriate legal or logical criteria is also a good starting point in identifying problems. Once the auditor has developed criteria models of applicable laws, program objectives, and logical methods for reaching the objectives, he can compare the models with actual program goals and activities. All significant deviations should be followed up on because they indicate potential problems.

Considering the vast range of Federal activities, it would obviously not be practical to list all of the specific legal and logical criteria models that could be used in individual circumstances to identify management problems. Instead, an example of a logical criteria model is presented. The reader could either use the suggested model, add to it, or develop a new criteria model to replace it. Obviously it is

only as good as it is useful to those trying to identify problems.

The example presents logical management actions for social programs. At each level of management the same actions should be carried out. These

basic actions could be compared with actual program activities to make sure that they are being done. If one of them is not being accomplished, there is a high probability that a problem exists.

#### An Example of a Criteria Model of Management Actions for Social Programs

#### Phase

#### Management Actions

A. Marketing Studies

Find out the total numbers and needs of the target population.

- Obtain basic demographic data on the target population.
- 2. Conduct marketing surveys of needs.

B. Goal and Priority Setting

Develop results-oriented goals for the programs including a priority of efforts. There is not enough money to satisfy total needs so efforts should be directed to first meet the most important needs.

C. Finance

Obtain financing for the programs.

D. Organization

Formally organize the program staff.

E. Coordination

Coordinate efforts with other Federal, State, and local groups trying to help the same target population.

F. Outreach

Inform the target population of the services available to them and, if necessary, either get them to the services or vice versa.

G. Execution

Initiate and carry out the activities needed to accomplish program activities. Develop policies, rules, and regulations. Develop an information system that obtains and reports key internal and external information to management.

H. Evaluation and Control

Evaluate program efforts and revise goals, priorities, and activities, as necessary.

#### A Recommended Federal Management Problem Identification System

Developing explicit legal and logical criteria can help a person identify and understand problems but is only one of many methods that can be used to identify problems. Suggesting a best method for identifying all types of Federal agency management problems would be extremely misleading if not obviously fallacious. The best method depends on any number of factors including the reason for the work, the amount of time and money available, and the sophistication of the auditors. A rapid survey of activities might be best for someone sophisticated in the auditing process but certainly not for a novice.

Rether than try to suggest the various situations in which individual problem identification methods should be used, the following system is recommended because it lists the basic actions which should be carried out in conjunction with using any problem identification method. As previously recommended with the criteria models that were developed, this system can be used as presented or modified as needed.

The major problem identification action steps are presented in four separate charts. Each chart presents a necessary step in the problem identification process along with suggested ways of developing information useful in performing each step.

The charts are presented in a manner that assists an auditor to bypass certain steps if he already has decided on the activities to be audited, has a basic understanding of the activities, or has identified some symptoms of a problem.

#### **Problem Solving**

Once all the problem identification steps have been completed, if any problems are noted, additional work should be done. A large amount of work may still be necessary to verify that the criteria is in fact the "best plan" and presents a practical solution to the problem.

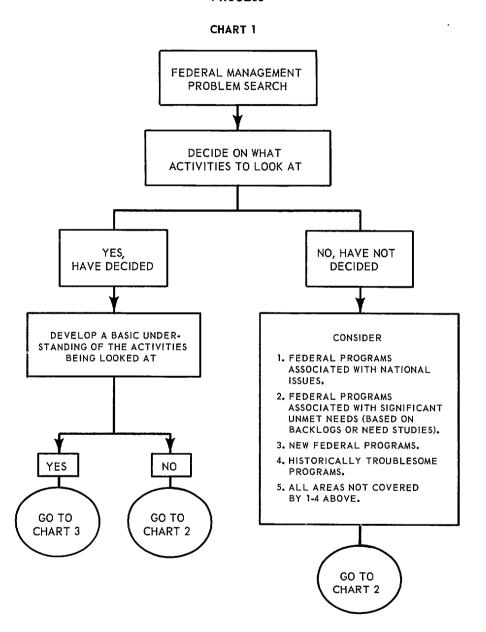
In efficiency reviews the solution is typically related to the cause and easily flows from the cause. In effectiveness reviews, especially those reproblems lated of national significance, problem solving is a much larger part of the total process. Causes of national problems are usually related to sociological factors rather than management weaknesses. It may be extremely difficult to link the sociological factors with workable management system solutions.

Can poverty be cured by a better management system? Do inefficient managers cause most of the difficulties experienced by the elderly? Obviously, there are no easy solutions to national problems; therefore, on problems of this type more time needs to be taken in developing alternative solutions and testing the solutions.

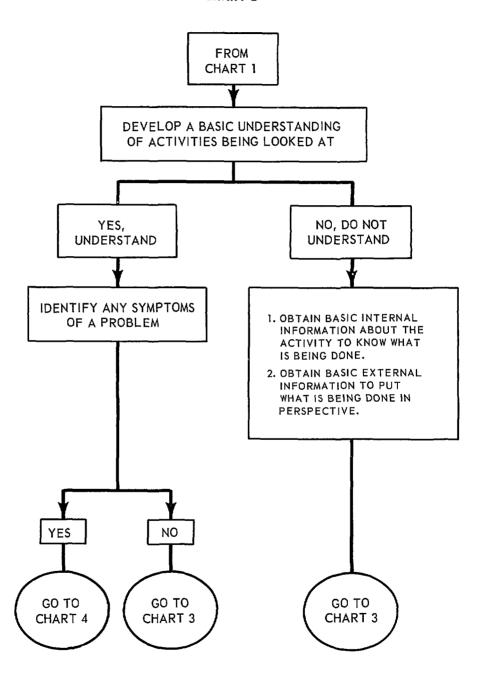
#### Summary

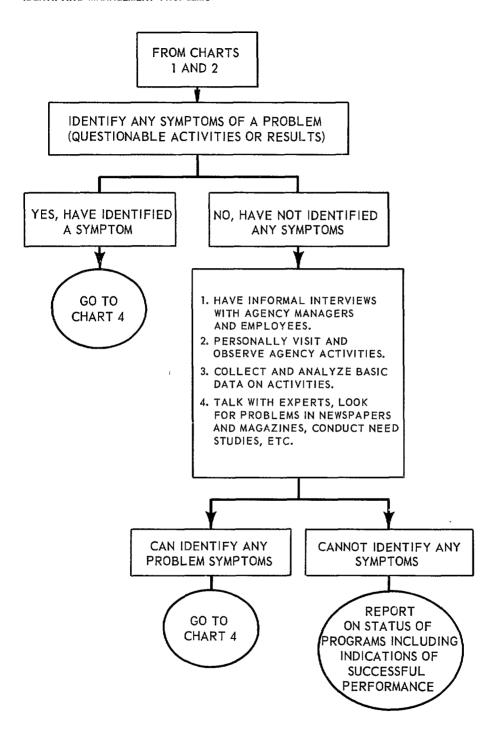
There are innumerable specific criteria models that could be developed for reviewing specific types of programs. Criteria models can be devel-

## A SYSTEM OF ACTION STEPS IN THE PROBLEM IDENTIFICATION PROCESS

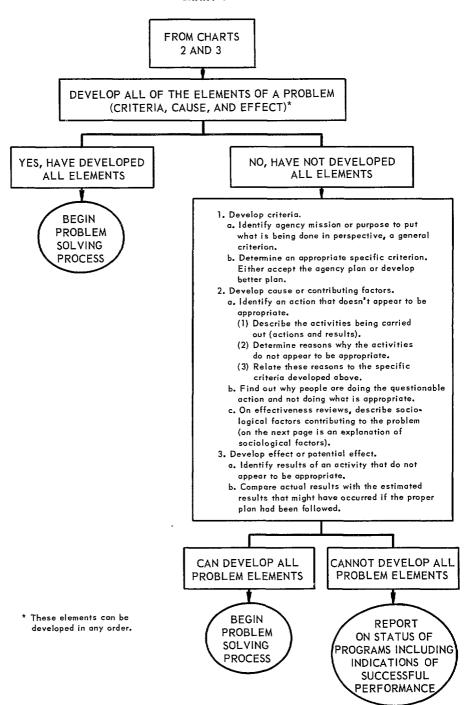


#### CHART 2





#### CHART 4



oped for various governmental functions and/or various levels of Government and can be associated with a variety of target populations. The example of Federal management actions for social programs was suggested because it forms an overall framework within which these programs should logically be operated. A variety of other models could be used in conjunction with this model. Hopefully, it will be helpful in actual use as criteria for identifying successful performance or program problems, as an example of how other logical criteria models could be developed and as an impetus to all managers to develop explicit written criteria rather than continue to rely on intuitive feelings about the way things should be done.

The problem identification system was developed to summarize the major action steps in the problem identification process. Depending upon the amount of basic information available at the beginning of an audit, the auditor could start at any of the four different stages of the process. Once all the steps have been completed, if any problems are noted they may have just been identified, not solved. At this point the auditor should carefully consider the additional work needed to identify solutions to the problem and test these solutions.

Problem identification is only a part of the auditor's workload but it is very important. Hopefully, the ideas presented in this article will help other auditors in this effort.

#### **Tackling Evaluation**

To plan, to budget, to allocate is to choose, and in all too many areas of departmental responsibility, we lack the criteria for intelligent choice. Our statistical data base is inadequate. Our ability to determine what works and what doesn't work—our capacity, in other words, to evaluate—is rudimentary. And while it is inherently difficult to measure the comparative costs and benefits of alternative approaches to dealing with any human situation, to recognize that the task is hard is no excuse for the failure to tackle it....

Elliot L. Richardson,
Attorney General, speaking before
American Bar Association, August 8, 1973

## The Wharton-GAO Information Systems Program

From the perspective of an attendee, this article describes the 1-month training seminars in ADP which have been conducted so far for nearly 50 GAO staff members through arrangement with the Wharton School of Finance of the University of Pennsylvania in Philadelphia.

The impact of the revolution in data processing and information retrieval methods during the past decade on the auditing profession could not have been more dramatically illustrated. On April 2, 1973, the opening day of classes for the first session of the Wharton-GAO Information Systems Program at the Warwick Hotel in Philadelphia, an article disclosing the Equity Funding scandal appeared in the Wall Street Journal and reappeared soon thereafter in other news accounts throughout the Nation.

This large-scale fraud, which involved theft of over \$1 million and may eventually cost Equity Funding shareholders an additional \$100 million, was perpetrated through fraudulent insurance policies which were coded and integrated with genuine policies on the subsidiary's master-

tape compiler files. The debate continues in the auditing community about the extent to which the use of data processing "assisted" the fraud or prevented its exposure, but it is undeniable that such occurrences highlight the transition of private and public management to automated data processing and the need for the accounting profession to update its audit techniques and increase its knowledge of information systems development.

Government auditors and performance evaluators are under no less compunction to do likewise. In view of the recent pressures being placed upon GAO to increase its role in congressional efforts toward closer scrutiny and control of the budget process and the growing amounts of money involved in the public sector, an even greater urgency exists for the Federal

Mr. Armstrong is a social scientist in the Financial and General Management Studies Division's Automatic Data Processing Group. He is a graduate of The George Washington University with a Master's degree in international affairs. He was formerly an intelligence research specialist for the Federal Government. He came to GAO in November 1972, following 4 years of employment with the U.S. Senate.

auditor or program evaluator to attain currency with modern information systems. The Wharton-GAO courses were conceived with this objective.

The courses have thus far consisted of two 1-month training sessions each involving 24 participants chosen from applications from each division. They are structured to be intensive (each attendee was expected to, and almost without exception did, dedicate all of his waking hours except for lunch and dinner to course activity), comprehensive (an attempt was made to include at least an overview of all significant aspects of the management information systems-past, present, and predicted), and also comprehensible. While the participant would emerge a programer or a data processing expert, he would attain substantial familiarity with general concepts and a firm background from which to launch further training or study.

#### The Setting

The course, which was arranged through the Wharton School by the ADP section of the Financial and General Management Studies Division, differed significantly from other GAO training courses in several unique ways.

First, the course, while not "inhouse" in the sense of its contractual basis, was "in-house" in a physical sense. The entire course, with the exception of one Saturday morning field trip to a commercial computer center in nearby New Jersey, was conducted within the confines of the Warwick Hotel. The participants occupied rooms throughout the hotel, while the course offices, lecture room, and six laboratory rooms—each equipped with a blackboard, conference table, and remote computer terminal—were located on the third floor.

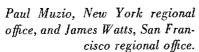
While this arrangement prompted a predictable array of comments, complaints about being a POW (Prisoner of Wharton) is one rather uninspired example, it was generally felt that the advantages of having ready access to the course facilities and saving time which might otherwise have been spent on commuting to another building far outweighed the disadvantages of the physical surroundings. This feature proved particularly advantageous when the need arose for extra instruction for some of the participants and when "minilectures" on some of the more difficult aspects of programing or the case exercises were scheduled-sometimes on only a few hours' notice-throughout the evening. It was also convenient and not at all uncommon during the first weeks for a participant, stimulated to the point of sleeplessness by the genuinely difficult terminal training exercises, to return to the team rooms at any hour of the day or night to put in some additional terminal time. Wharton faculty and student advisors were available in the evening to work with the six four-man teams as well as to answer individual questions.

Another unique feature was the opportunity for class members to actually utilize data processing equipment. The course provided a "hands-on" environment giving each man the opportunity to write his own

## Working With Computer Terminal During Wharton-GAO Information System Program—June 1973



Phillip DeBaise, Federal Personnel and Compensation Division, and George Halleron, Logistics and Communications Division.







Monte Commons, Denver regional office, and Steven Virbick, Financial and General Management Studies Division.

programs, test and debug them, and run them using sample or experimental data. The user is literally involved in interactive capacity with INFONET timesharing system operated for GSA, from the initial "signon" procedure to the final printout of successful programing exercise. While few of us ever envision again constructing our own programs, or wanting to, we have certainly gained a degree of insight into, and empathy with, the technical problems of programers and terminal operators.

#### Case Studies: The Team Approach

A particularly agonizing (for some) but challenging aspect of the program was the use of certain case studies worked out by visiting New York University professor, Dr. Robert Blanning, to train the participants in terminal use. file construction maintenance and integration, and the overall problems attending the design and implementation of a management information system. The teams, which were reconstituted each week, worked together during the evening and submitted a joint report at the end of each exercise. The specific exercises and the approximate periods during which they were performed follow.

Week one: The flow charting, terminal entry, and successful execution of programs to (1) calculate and print the sample mean, variance, and standard deviation of a sample sequence of numbers, (2) determine the correlation coefficient and regression coefficient between sample pairs of

numbers, (3) sort a series of random numbers into sequential ascending order, and (4) construct a model simulating a real-life inventory replacement situation to provide a cost-effective regular replacement policy as opposed to replacing items only upon failure. An optional exercise involving a simulation of a maintenance process was also provided for the more ambitious students. Both simulation programs involved the utilization of canned subroutines to generate randomized time intervals until failure.

Week two: A brief exercise in COBOL programing to illustrate the utility and the limitations of a higher programing language (the language throughout the course BASIC). The rest of the week was spent in exercises relating to files. Participants learned to extract data from existing files by name or by secondary key (such as physical characteristic), to maintain (or update) files by entering new names and "hashing" to a new address in the file storage area, to merge files, and to conduct a search of one file for information on an individual appearing on another file.

Week three: The urban case. This exercise was designed ingeniously; it illustrated not only the problems involved in designing an automated information system but also the sensitive issue of invasion of personal privacy through the integration of data banks. This case was the vehicle intended to bring together many of the precepts learned in earlier sessions and illustrate their application in a situation resembling a real-life environment.

The hypothetical situation was that of a mayor soliciting proposals for the design and implementation of an automated information system for the city administration and 21 municipal departments. Each team was given a package containing information concerning the city, memorandums or speeches from various officials suggesting the type of information desired, and the types of methods desired to access the information.

The memorandums also specified types of information which certain officials wished to have access to from other departments for purposes of increased efficiency, verification, and cross checking or for performing certain "what if?" studies to evaluate existing programs or determine the feasibility of new ones. Also included were memorandums from budget officials indicating alternative ways of financing a system as well as reports from different equipment manufacturers indicating the specifications and price of available hardware.

Finally, to provide an added dimension (read complication) to the problem, certain constraints in the form of (1) a city law regarding the integration of data banks and (2) communications from the mayor's advisors on political considerations were also incorporated. Then each team had the responsibility for designing the system they would recommend. Since many variables had to be considered, it was not surprising that the final proposals differed considerably in both their degree of sophistication and the type of system actually proposed.

Among the more important decisions each team had to face were:

- —Logically separate files versus a centralized data bank: the privacy issue.
- Physically centralized equipment versus an emphasis on remote terminals.
- Large capacity versus small-capacity central processors and storage devices, with the cost trade-offs: the hardware decision.
- —Type of financing: through bond issues, through Federal grants (restricted to certain uses), or through regular budget processes, and the total amount to be expended.
- —Decision to buy, lease, or rent the various mixes or configurations of equipment decided upon.
- —Information to be included in the data base of each department: which requests for access were reasonable and which should be denied.
- Type of file organization to be used in each case: sequential, index-sequential, or random with access by primary and/or secondary key address.
- —Duties of the newly created office of data-base administrator.
- —Planned schedule of implementation, i.e., which data base, involving which hardware was to be implemented and in what time frame.

Week four: Audit of the urban case. The final exercise was devoted to analysis of each team's proposed urban information system. Six audit teams were formed and were composed of four individuals, none of whom had worked the previous week on the proposal being evaluated. Criticisms were then prepared. A 1-day session was devoted to half hour oral presentations by proposal team leaders of their proposals, followed immediately by the audit team's appraisal of those proposals, comments by the remaining class on both presentations, and occasional observations by Dr. Blanning.

This form of team effort to develop one proposal, with the added element of a scrambling of team members for a subsequent analysis of yet another different proposal, was quite effective. Each participant was involved quite directly in two different solutions and was eventually introduced to all six. Each member was also exposed to the thoughts and impressions of each of the other members of his proposal team and audit team. There was no doubt that the give and take of such sessions, as well as the candor expressed during the wrap-up session, was productive.

#### Class Lectures

Another observation about the course which should be made concerns the nature of the lecturers provided primarily from the Wharton faculty but also from other universities, the private business sector, the accounting profession, and the Federal Government. With one or two exceptions, which each participant had an opportunity to duly note on critique sheets that were filled out at the closing of each morning and afternoon session,

the lecturers were exceptional not only by virtue of their qualifications but also by their teaching capability. Just as the participants had ample opportunity to interact with the computer, each instructor strongly encouraged, and invariably received, a good deal of interaction with the participants in the form of questions and discussions of ADP-related experiences.

The lecturers included faculty from Wharton, New York University, University of Minnesota, University of Michigan, and Rutgers. The subjects ranged from basic introductory matter relating to systems concepts, data collection, and simulation in the first weeks to the more specialized topics of computer architecture, communications, the social implications of computing, fine tuning and monitoring of hardware, cost-benefit analysis of information systems, human factors involved in MIS (there still are many, contrary to common misconception). systems auditing, and the future implications and applications of MIS.

#### **Appraisal**

The April course, since it was the first joint Wharton-GAO endeavor, naturally had a few "bugs" in it which could not have been anticipated and which were eliminated or mitigated in subsequent sessions. The time-sharing link with the INFONET system was occasionally not available or, in common parlance, the "system was down," but this was not a major inconvenience. Some materials relating to lectures were not available before the session, although a full set was available for subsequent courses. (Each par-

ticipant received a set of hard cover loose-leaf notebooks in which to keep lecture notes, program solutions, etc., which will serve as a permanent reference work for review in conjunction with anticipated ADP-related work in the future.) One other improvement, which was incorporated in the subsequent curriculum, was the inclusion of earlier or precourse preparation in learning the programing language, so that the time expended in learning terminal-use, debugging techniques, and edit commands could be minimized and more time could be devoted to actual exercises.

Some participants, who may have been discouraged by the size of the urban case or simply fatigued by several weeks of nonstop concentration, suggested that the urban case was too theoretical to be a relevant exercise. However, after a closer look at some of the information systems which are currently established or under consideration, they might have thought otherwise.

The Department of Housing and Urban Development, as soon as detailed results from the Census Bureau become available, plans to conduct baseline studies of particular minority groups, e.g., Spanish-Americans and Indians, on "migration, mobility and commuting patterns; on the relationship between the location of employment and residences the relationship between incomes and housing location; and unmet housing needs." 1

Similarly, the FBI-LEAA currently proposed Computerized Criminal History system, which would provide for approximately 38,500 more remote terminals than are presently hooked into the National Crime Information Center, considerably increases the possibility of more broadened or integrated files at the local level.

Finally, the Urban Information Systems Inter-Agency Committee, which was initiated in 1970 with the participation of 10 Federal agencies, is experiments conducting municipalities to introduce computerized data processing into a wide variety of civic functions. It expects to have all these systems designed by the end of 1974. It is also noteworthy that at least one State (Massachusetts) has passed a law directly restricting access by public agencies other than those involved in criminal justice to an existing criminal information data bank.2

The urban case, therefore, would appear to have considerable relevance, particularly if GAO is ever asked to evaluate the security of Federal data bases or comment upon safeguards established for their use.

It can also be said, given the perspective of time, that many other features of the course will be of invaluable assistance to GAO staff in future reviews involving ADP facilities or in projects undertaken with the aid of ADP equipment. A similar

<sup>&</sup>lt;sup>1</sup> Hearings, Subcommittee on Appropriations, HUD-Space-Science-Veterans, U.S. House of Representatives, 92d Cong., 2d sess., Apr. 19, 1972, p. 1197.

<sup>&</sup>lt;sup>2</sup> Computerworld, Apr. 4, 1973, p. 1. Fortytwo agencies, several of which previously had access, were declared ineligible in this case.

statement can be made to apply to itself just beginning to experiment GAO staff members engaged in direct with electronic aids to meet its operaassistance to the Congress, which is

tional and informational needs.

#### The United States Civil Service

The image some people have of the civil service as "an army of clerks" is as outmoded as the horse and buggy. Occupations in the Government match almost every kind outside the Government and include a number not found in the private sector. Today's Federal service is largely a corps of professional men and women, and of highly skilled technicians and craftsmen.

The contributions made by these career civil servants have included many "firsts" of great importance to the American people and to the world. Among these:

- The first astronaut on the moon
- The development of radar and sonar
- Development of commercial and military instrument landing systems
- Development of wash-and-wear fabrics; the aerosol bomb; the Beltsville small turkey
- · Pioneering in the standardization of whooping cough vaccine
- Establishment of standards of purity for foods and drugs
- Techniques for determining the toxicity levels of commonly used pesticides
- · Pioneering in automatic data processing
- Pioneering in electronic microminiaturization (printed electronic circuits)
- Launching of the science of rocket astronomy
- The practical development of dextran as a blood plasma extender
- Establishment of standards of measurement for industry
- · Use of satellites in weather forecasting
- Invention of long-lasting synthetic lubricants having many industrial uses

From U.S. Civil Service Commission Brochure on the Federal Career Service, 1973

## 721616

## A Market Perspective of GAO— Insights and Opportunities

The concepts of market planning can prove useful to GAO production managers. The basic tools described in this article can strengthen the relationship between GAO's vast productive output and the usefulness of its products to both the Congress and agencies of the executive branch.

A market orientation requires some departure from the traditional ways of looking at how GAO conducts its operations. It involves viewing the GAO mission more in terms of changing customers, changing products, and changing strategies.

Market is no magic word. Its roots are based in a simple response to the competitive environment in which all modern enterprise finds itself. Needs to plan, to know users, to evaluate results, and to have a production system organized to synthesize these things—all are prerequisite to sustained organizational growth.

Marketing in Government is the same as in business: supplying groups of customers with the means of satisfying needs customers think are important. In fact, no group of Government activity exists that cannot be described in terms of a group of customers to be

served, and a product or service rendered. Government is a process of doing things for people, not to people, which they feel a need to have done. Government performs these services as long as, and only as long as, someone is willing to pay for them.

There can be little difficulty envisioning a parallel of this popular market concept and a concept of the GAO market mission—to serve and assist the Congress. GAO is responsible to the Nation and to itself as a professional organization to serve and assist the Congress by providing useful information products which help the Congress to carry out its legislative and oversight functions.

## The Competitive Congressional Information Market

The Congress does not operate in an informational vacuum but seeks

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sources of knowledge to inform its membership about particular legislative issues. Competition is intense for expert and prestigious informational sources. So strong is the need for information and so persuasive is its effect on the legislative decisionmaking process that vast amounts of manpower and money are used to supply these needs to the Congress. Among the agents who offer information to the congressional market are:

Congressional Information	7
Sources Other Than GAO	
Special interest groups	

Industrial associations

Professional associations

Election results, correspondence from constituents, and opinion polls

Testimony of experts
Executive departments

Independent research

Government-sponsored research

The news media Congressional research

#### Popular Examples

Sierra Club, NAACP, VFW, National Council of Churches

National Association of Manufacturers, the auto industry, the tobacco industry

The American Medical Association, the American Bankers Association, the National Home Study Council

Letters from home, Gallup Poll, local elections

Edward Teller, Admiral Rickover

Department of Defense, Attorney General's decisions

Ralph Nader & associates, Brookings Institution, scholars

The Rand Corporation, Battelle Memorial Institute, universities

Press, radio, T.V., periodicals

Congressional Research Service, committee staff research

To operate effectively in this highly competitive information market, GAO must continue to do more than rely on its charter and position in Government. It must continue to make substantial contributions to congressional decisionmaking by continually improving its capabilities as a prime source of congressional information.

One must immediately recognize that GAO produces information and exerts an impact that extends beyond the reports it issues to the Congress. GAO information products are a complex total of many types of constructive and productive efforts. For example, the Comptroller General's decisions, addresses, and advice; the discipline imposed on executive agencies by GAO auditors' presence; and the Office's congressional testimony and dissemination of public information are all influential products developed in fulfilling the GAO mission.

GAO creates these types of information "products" and more. But to continue to make substantial contributions to congressional decisionmaking, it must continually improve its competitive position as a leading manufacturer in the congressional information market. One way to do this is for GAO to continue to increase the market value of its information products by better managing the market process.

#### Managing the Marketing Process— A GAO Perspective

To keep its position secure, GAO must continue to identify, produce, and distribute information products to a broad market. GAO may increase its impact on congressional decisionmaking by market management and its effectiveness by increased attention to planning products for users. A quick reflection on the way some reports are now designed points to a major marketing consideration: variations in traditional production GAO and marketing processes are rare.

Product planners must always clearly state what end products are desired from each assignment so that frequent changes will not be made in assignment objectives or perspectives. Project teams must know in advance what constructive actions they are seeking, then design the types of information products which are most likely to generate such actions among product users.

Without discussing an anthology of marketing principles or a shopping list of elements and definitions, the following important elements of this process are listed for the purpose of exposition.

## Major Elements of GAO Market Management

- 1. Product pricing
- 2. Product packaging
- 3. Production distribution
- 4. Product promotion
- 5. Product timing

A variety of these time-tested tools can give the product planners conceptual assistance toward defining their product objectives. A brief summary discussion of these concepts follows.

#### **Product Pricing (Cost)**

Pricing can be measured most conveniently and perhaps most meaningfully in man-days spent on the product. These man-days to be spent can further be weighted by grade (talent and experience to be spent) to determine cost. The amount of all the market variables-planning, timing, distributing, promoting, doing, and packaging will affect the cost of producing the finished product. Other operational costs, such as travel and administrative overhead, can be included if additional refinement is in order. The amount of these planned costs can then be compared to the anticipated benefits of the assignment in terms of service to the Congress or assistance to the executive branch. Measurement of the benefits is at present a value judgment outside the scope of this article.

#### **Product Packaging**

Bound reports to the Congress are obviously not the only way to package GAO products. Other product packages may be more appropriate and may heighten the impact of the reports when combined with other elements of marketing management. For instance, an audiovisual report to a committee, after the survey, may prove to be more timely and less costly. It may further whet congressional appetites for a full-scale review or lead to quick corrective action.

When combined with the many possible distributions, promotions, and timings, four possible packages give GAO marketeers a wide range of discretionary products:

- 1. Oral reports and presentations.
- 2. Audiovisual reports (video tapes, slides, and flip charts).
- 3. Agency management letters.
- 4. Congressional reports.

#### **Product Distribution**

The Congress may be GAO's target market, but frontal assaults are not always most tactful or productive. Since GAO is interested in fulfilling overall mission and objectives, lateral movements may often accomplish more at less cost. Therefore GAO market management can use a variety of distribution channels to reach its primary target market:

- 1. The Congress.
- 2. The congressional committee.
- 3. The committee staff.
- 4. The individual Congressman.
- 5. The agency administrators.

## Product Promotion— Developing Congressional Demand

More powerful promotional means are available to GAO. The desire for GAO products can be appropriately heightened, employing a variety of promotions as jobs progress. The concept of a "psychological promotional escalation" can coincide with GAO's readiness to report and the current price spent on a given product. Briefly, this concept means bringing the user along before and as the product is in production. This approach gives the user time to accept a product that GAO has prepared him to anticipate. Proper use of the concept can diminish the risk of user rejection or disinterest in the final product.

An essential assumption leading into this reasoning is that often the producer is more aware of the importance, or impact, of his product than is the potential user. Therefore it is a GAO responsibility to increase awareness and interest within the user, whether he is an agency official or an interested Congressman. GAO need not limit promotion to those products already wanted but can also discover, develop, and promote new products for new users (develop discretionary products). Promotional activities do vary widely within GAO, since sensitivity to congressional discontent, dissonance, and felt-need for legislative or executive action elicits varying responses in different operating groups.

## Product Timeliness— A Conceptualization of Time

Every creation of God and man is evidence of the existence and value of time. Every living thing experiences a birth and a death. The creations of man are also only transitory—germinating in the mind, built with the hands, and diminished, invalidated, or destroyed by time—nothing endures.

Transferring this concept of time from the metaphysical to the physical, one can discover that the eternal theme also exists for GAO creations. Some information products are too soon, some are too late, but how many are just right? As in our daily lives there are appropriate times to do some things and inappropriate times to do others, there are opportune and inopportune times for GAO to issue its information products.

#### Managing for the Market— What Is Needed?

The real market for a GAO product is only an assumption until that product is tested in the market; i.e., put to use by the Congress or by agency officials. The actual market quite often is different than that envisioned. It is therefore important to identify prime markets for embryonic issues soon after they are discovered so GAO can aim anticipated products where they will do the most good and design them for maximum usefulness to decision-makers.

The challenge embodied in the attempt to create the best possible information products (optimal in the sense of being the most desirable product GAO is capable of offering) will always require early modification in the design stage of product development. The design of this product should

correspond with what is known of the primary user/consumer perception of the issues to be reported. Don't guess, ask him! The design within which the product is being developed will yield optimal user satisfactions only if the GAO designer first knows:

- 1. What kinds of products will be of most value to the users.
- 2. What satisfactions the users seek from these products and the priorities of these satisfactions.
- How the timing of product issuance or interim promotional disclosures will enhance user satisfactions.
- How a variety of product packages and presentations will affect user satisfactions.
- 5. What degree of product refinement is actually needed to produce these identified satisfactions.

GAO's information products must satisfy some external GAO need; otherwise they would be a mere exercise in production. GAO must continually develop advanced-market knowledge on potentially reportable issues, maintain continuing knowledge of user expectations and preferences, and provide ongoing analyses to evaluate the changing impacts of various product timings, promotions, and packages.

Continuing investigations are needed even when GAO assumes to know what information others desire. Because even when it thinks it knows what will satisfy the markets, it may be unaware of unfilled market needs. To continue to insure the effectiveness of its products, GAO must continue to

improve intelligence and liaison procedures which better enable it to:

- Rank congressional wants, needs, and desires by committees (market survey).
- 2. Establish closer working relationships with committeemen and their staffs (sales contacts).
- 3. Assign operating groups to work with specific committees and subcommittees on major national issues (market segmentation).
- Rank each issue, within each operating group, in a priority of anticipated information products (put first things first).
- 5. Promote to committees issues that appear most appropriate, significant, and appealing (put best foot forward).
- 6. Develop strategies for marketing each potential product (plan).

#### Conclusions

To test the market power of your latest product, ask yourself the question, "Did it bear fruit in the market?"; that is, did the information

package you developed reach consumer hands and minds and evoke attention, interest, and discussion; and did it influence congressional or executive decisions? Whatever your response, you may find some of the conceptual tools described in this article immediately useful and applicable to your present job.

The decisionmaking abilities of the Congress and the executive branch can be no stronger than the information available at specific times, at specific places, in specific packages. GAO, as Congress' legally prescribed investigative and evaluative arm, is ideally situated to provide the types of information products needed to improve the quality of Government.

A market-oriented approach to GAO production management has and can continue to provide decisive advantages in the struggle to constantly improve the quality of GAO service. To produce without market awareness is simply to let forces other than professional reasoning, talent, and experience shape GAO's contribution to the Congress and to the Nation.

#### A Limitation of Literature Searches

It is a truism in public administration that many of the people who know the most about particular facets of this field are, because of the responsible posts they hold, usually too busy to write. But wisdom based on the actual experiences of top-level practitioners is required to give substance to theoretical and philosophic study.

Albert H. Rosenthal
In preface to "Public Science Policy and Administration" (1973)

#### Idea Generation in GAO

Ideas for new audits abound both in GAO work and in the private experiences of staff members, but without a formal system to encourage and process new ideas, many good ones can be lost. The authors describe how one such system has operated.

GAO's professional staff represents a virtually unlimited source of new ideas for improving government operations. The problem of tapping this resource and generating such ideas is the subject of this article. We will show how the Chicago regional office approaches this problem and deals with it.

#### Form 284

For many years GAO has encouraged staff members to be alert for problem areas and to submit recommendations for future work on a special form, Recommendation for Potential Audit Work (form 284, see page 32). Ideas for these submissions may arise from personal experiences both on the job and off. For

example, during an audit the staff may notice areas with audit potential that are outside the scope of the current audit and therefore cannot be adequately pursued at that time. In other instances ideas may be generated by newspaper articles, personal observations, or information provided by acquaintances. The recommendation for future work (284 process) is really the suggestion box of GAO, and all auditors are urged and expected to use this mechanism.

As with most suggestion boxes, some ideas submitted are good, others are not; but marketing expert Philip Kotler points out that a large number of ideas must be generated to insure several good ones. He adds, "The greater the number of ideas generated, the better the best ones are likely to

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#### RECOMMENDATION FOR POTENTIAL AUDIT WORK GAO FORM NO. 284 (May 64) U. S. GENERAL A ACCOUNTING AND

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be." Although Kotler talks about new ideas in a business atmosphere, his concepts are remarkably applicable to idea generation in GAO.

As the Comptroller General emphasized in March 1972, field offices must assume greater responsibility for generating new audit ideas. The 284 process can be a valuable tool for implementing this principle. However, because the Chicago regional office had no formal system to insure a steady flow of new ideas from the field staff, each staff member had to prepare and submit form 284s on his own initiative. Experience had shown that the heavy workload on the job and limited time available to complete an audit had restricted the number and quality of form 284s. Kotler anticipated this situation when he warned, "When there is no formal management responsible for gathering ideas, many useful ideas are lost forever to the organization." 2 In response to the Comptroller General's statement, therefore, the Chicago regional office estabcontinuing management lished a process to develop new audit areas.

#### The Chicago Approach

The nucleus of Chicago's plan is a part-time staff of two experienced auditors designated to coordinate all discretionary work in the region. The staff's goal is to identify and recommend potential survey areas to the headquarters operating divisions—generally through the form 284, but also through workpaper summaries, memorandums, telephone calls, and any other method which might convey the regional office's interest and enthusiasm for the proposed survey.

The coordination team does not relieve other staff members of their responsibility to identify potential audit work. On the contrary, one of the coordinators' strongest weapons is still the initiative of individual staff members to seek out and recognize areas with audit potential. The coordinators. however, can channel staff efforts to maximize their output. To continue the marketing analogy, Kotler charactercoordination this work "Search, Stimulation, and Enhancement."3

#### Implementation

Since the coordination team was established more than a year ago, it has played the role of innovator, auditor, and manager—sometimes all at once. The following examples illustrate the types of work which the team has undertaken.

1. The team has served as a focal point for staff members' ideas by encouraging submission of ideas, arranging discretionary time for individuals to check out their ideas, doing background research, and—possibly most important—assisting in drafting form 284s. This approach was used successfully with one staff member, an

<sup>&</sup>lt;sup>1</sup> Philip Kotler, "Marketing Management: Analysis, Planning, and Control" Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967), p. 470.

<sup>&</sup>lt;sup>2</sup> Kotler, p. 470.

<sup>&</sup>lt;sup>3</sup> Kotler, p. 472.

Army reservist, who noticed apparent inefficiencies in transporting military reservists to summer camp. The form 284 which was developed resulted in a major survey supervised by the staff member originating the idea.

- 2. The coordination team has researched its own ideas and pulled them together to develop a possible audit approach. In one case, several staff members' observations were supplemented by an interview with an agency official and some ideas by the coordination team. The team then developed a form 284 recommending a survey of General Services Administration office space management in the Chicago area. Even though only a limited amount of time was spent in developing the recommendation, it was accepted and a survey was approved. This approach is particularly appropriate for multiagency audit areas.
- 3. The team has planned and coordinated surveys to identify potential audit areas in agencies or programs which have not been recently audited in the region. One or two staff members have gone onsite full time for a week or two to gather information and generate possible audit ideas. The aim of these brief surveys is to develop as many form 284s as possible in as short a time as possible, while at the same time assessing the significance of the areas and recommending priorities for audits. Any work of this type is always discussed and cleared with the appropriate Washington operating group. This technique has been used successfully at the Bureau of Sport Fisheries and Wildlife in St. Paul, Minnesota, where the staff developed

five form 284s. Washington headquarters staff approved one of them for formal review and held the others for long-range planning.

#### Flexibility: A By-Product

Because the discretionary work is part time, the coordinators have assumed other ongoing responsibilities. When the Comptroller General was given responsibilities under the Federal Election Campaign Act early in 1972, for example, each region was asked to familiarize itself with the law and respond to questions by political committee officials and requests from the newly created GAO Office of Federal Elections. In Chicago, this task was given to the coordination team, which, because of its flexible workload, could answer specific requests quickly and could also assist in initial audits of political committees under the act.

The team is usually available on short notice if headquarters requests brief fieldwork. On one occasion, the Washington office proposed an audit at the Federal Records Center in Chicago, but questioned whether the review could be done at that location. The Chicago coordination team was able to go onsite at the center, interview the director, review the necessary files, and report to Washington that the audit could indeed be performed in Chicago—all within 2 days of the request.

#### Conclusion

It is certainly possible that many of

these same functions can be and are performed in some regions without a formal organizational unit. It is also possible that other mechanisms could be devised to accomplish the team's objectives just as effectively. The Chicago approach is not presented here as the ultimate solution for every region. The exact team makeup and operation

has changed and will continue to change as circumstances warrant.

The point to be stressed, however, is that the flow of ideas improved markedly with the systematic marshaling of the resources available in the region. And that is a result which benefits each staff member and his regional office and GAO as a whole.

#### Streamlining Meetings

\* • \* there is much to be said in favor of holding meetings at 5 P.M.—when executives are anxious to head home—or where everyone is forced to stand. If your associates find no chairs in which to make themselves comfortable for a nice, leisurely discussion, you will find that the meeting often will be over in minutes and sharper decisions made, too.

Robert E. Levinson
In article on "The Executive Escape Hatch
... Or How to Avoid Detail"
Management Review, August 1973

# A Cooperative Effort With a State Society of CPAs

The Comptroller General has expressed a desire for "increased attention on achievements contributing to better Government rather than on the preparation and issuance of reports \* \* \* greater emphasis on bringing about improvements in Government operations." This article discusses an audit when a significant part of the action found to be needed was initiated and partially completed before the report was drafted.

It has been said a good GAO report often contains no recommendationsonly recognition of action taken or promised; that is to say, prior to final reporting we made recommendations, and agency officials concurred and took or agreed to take appropriate action. It has also been said that GAO should not measure its worth or accomplishments by the quantity of congressional reports issued. One of our goals is improvement of agency programs, and our reports are merely a means to that end. In fact, in some cases formal reporting may not be necessary at all.

Many of our audits deal with large, many-faceted programs and involve controversial subjects; as a result, usually our audits are complex in nature. In all cases, it is important that we encourage agency officials to take as much positive action as is possible during the audit or at least before the report is issued in draft.

This article discusses a case when action was initiated and, in part, completed during the audit through cooperation of a third party.

#### Background

The Office of Economic Opportunity, as one of the Government's antipoverty agencies, conducts some of its programs through community action agencies (CAAs). These are independent organizations carrying out activities to assist local communities. They are funded largely by grants from OEO and the Departments of Labor and Health, Education, and Welfare; Gov-

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ernment funding of these grants is well over a billion dollars annually.

One condition of these grants is that each grantee be audited annually. These audits are one of the primary methods by which OEO attempts to keep informed on the validity of the grantees' reported expenditures and their financial condition. The audit reports serve as OEO's principal source of information for (1) the grantees' overall accountability for program funds and (2) costs incurred by type of expense. OEO also depends upon these reports to insure that the grantees' accounting systems and related internal controls are operating effectively and that adequate records are being maintained. Almost 90 percent of all grantees audited have been audited by State-licensed public accountants, many of these being CPAs.

#### Genesis of Our Review

For some years, GAO had from time to time been asked by individual Congressmen to look into the financial and operating affairs of various CAAs. In many instances we found the grantees' internal controls and financial records to be very inadequate. By contrast, the most recent reports of the grantees' independent public accountants did not comment on internal control problems. Instead, the auditors had given unqualified opinions on the reasonableness of reported financial data and operation of the internal control systems.

At this point, we seriously questioned the adequacy of some of the independent auditors' work and the reasonableness of their reports.

#### Initial Planning

The review was under the direction of our Washington Office with the Atlanta, Dallas, Kansas City, and San Francisco regional offices participating. After each regional office staff had an opportunity to spend a few days at the respective OEO regional offices, it selected a CAA for review to gain familiarity with the grant program as operated and to test a tentaapproach. participating regional staffs and our Washington staff then met in Dallas for a general brainstorming session. From this session came our finalized approach to the audit.

We decided that we would not have to fully evaluate the impact of the internal control deficiencies noted. All we had to do was find a major weakness in a CAA's system of internal controls: find that this weakness had not been reported by the independent accountant; and find that this expense category, or asset, intended to be controlled was of significant size, monetarily, in relation to the CAA's total activities being financed by Government grants. We did not have to determine that, in fact, there had been a defalcation. (In some cases we were to find that it was impossible to determine what had happened at all, let alone whether it had been legitimate.)

The first CAAs visited by representatives of two GAO regions were found to have glaring deficiencies in their control systems. Therefore, we had good reason to believe that our overall potential audit finding—that independent accountants had done an inadequate job on the audit—would be confirmed. Because we would be criticizing the profession of which we are a part, our eventual report could become involved in lengthy policy considerations. To avoid any 11th hour problems, we decided to bring our policy staff in Washington actively into the picture at an early time.

#### **Development of Our Finding**

Before too long, it became apparent that our potential finding on inadequate CPA audits was, in fact, being developed. At almost every turn, we found deficiencies that had not been reported. The deficiencies were basic to adequate controls-such things as payrolls not supported by signed and approved timecards; no leave records; travel expenses paid without benefit of travel orders or vouchers: vendors paid without purchase orders, invoices, or receiving reports; no annual physical inventory or control records of fixed assets; and an almost unbelievable lack of control over checkbook, bank statements, etc.

Of the 27 CAAs we visited nationwide, we found that 17 had been operating with what we considered major system deficiencies that had not been commented upon in the independent accountants' audit reports. As for why the deficiencies had not been reported, we were given several answers by the independent accountants, including:

- -"I didn't find that."
- —"I orally told the CAA management and that is all that is necessary."
- —"If I had reported it, the CAA might have been defunded by OEO and that would have been a disservice to the community."
- -"I don't know."

After our visits to the CAAs, we concluded that we had two basic findings: One, that the independent accountants were not under contract to the funding agency, OEO, but rather to the grantees with a resulting lack of understanding of who their real client was; and two, that the audit work itself had been inadequate, due either to a lack of professionalism or because the accountant was really not familiar with the compliance and management audit aspects of OEO work.

In connection with the second finding, we realized that, to be of maximum real benefit to OEO's programs, recommended action should not only correct the problem but should also be acceptable to the profession. We initially considered the following recommendation:

To better acquaint the independent accountants with the specialized audit requirements comprehended in audit engagements of Federal programs, we recommend to the Director of OEO that he arrange with the various professional accounting organizations throughout the country for a series of training seminars for the practicing accountants. These seminars should dovetail in with the Government-wide efforts in develop-

ing auditing standards<sup>1</sup> which will apply specifically to these audits.

### Initial Contact With State CPA Societies

While we were writing our draft, we knew that the professional accounting organizations which were referred to the training seminars were, in fact, probably going to be the various State CPA societies. To prepare them for our comments and to obtain their views, we decided that certain of the societies should be contacted. To do this in a consistent manner, we wrote in June 1971 to the societies in the 12 States where we had conducted our review. In this letter, we advised them of the purpose of our review, our findings, and our potential recommendations.

Prior to mailing the letter, we met with representatives of the California State Society of CPAs in May. We found them to be interested in our thoughts and not at all unbelieving of our findings. They were quite receptive to our proposed recommendation regarding training and eager to move forward with plans leading to actual training sessions.

Meanwhile, at the Washington level, progress was being made. Assistant Comptroller General E. H. Morse spoke to the Central State Society of CPAs in Nebraska and commented at length on our findings and the need

for training. Subsequent meetings were held with other organizations, including committees of the American Institute of CPAs. We gave them written examples of our findings taken from our draft, which, at that time, was in the process of being written in San Francisco.

#### Plans for Training Sessions Are Finalized

San Francisco's section of our draft report covering the inadequacies of CPA work throughout the country was mailed to Washington in August of 1971.

Also in August, we had a formal meeting with the California Certified Public Accountants Foundation for Education and Research. A committee of Federal officials and practicing CPAs was named to iron out the details of the planned training seminars. The committee held a series of meetings from August through January. At these meetings, we discussed the training program agenda, the speakers that we hoped to obtain, and the various mechanics to be worked out, including promotion brochures.

Early in this series of meetings, we decided to expand the training session to include not only OEO audits but also public accounting audits done for HEW, Labor, and the Department of Housing and Urban Development since they all had related problems. But it became apparent that the foundation was not geared to work simultaneously with several Federal agencies. None of the participating agencies wanted to take charge, so it

<sup>&</sup>lt;sup>1</sup> The standards referred to were subsequently published by the Comptroller General in 1972 as "Standards for Audit of Governmental Organizations, Programs, Activities and Functions."

was only natural for GAO to assume responsibility since we had initiated the training session program in the first place.

We decided to have a 2-day program given twice—once in San Francisco and once in Los Angeles. The program would cover the need for independent audits, the opportunities for CPAs to engage in these audits, the deficiencies being encountered by the agencies in reviewing the audits, a discussion of auditing standards, the auditors' role in measuring program effectiveness, and fee aspects of public sector audits.

During these committee meetings and at several individual meetings with specific speakers, we met with highly placed officials of the local offices of national CPA firms. These meetings served to emphasize the importance of our findings and also lent credibility to the fact that there was a real need for the training.

#### Training Sessions Are Held

The training sessions were held in May of 1972. About 250 practitioners paid fees of \$60 each for attendance. Speaking for GAO were William L. Campfield, then associate director of our Office of Policy and Program Planning, and M. A. Dittenhofer, assistant director of our Financial and General Management Studies Division. We were fortunate in being asked to chair the conference's second day. In all, we had 18 speakers representing Federal agencies, State audit organizations, and practicing CPAs.

Each attendee received a book pre-

pared by the foundation, which included outlines of all of the talks and a wealth of reference material and audit guidelines gathered by the various Federal agencies. This was the first time that these guidelines had been made available in one publication. Also included, although not identified as such, was a condensed portion of the findings section of our proposed draft report.

During the more relaxed periods of the 2 days, we engaged in several discussions with the practitioners. It became readily apparent that many of them were, in fact, interested in audits of Government programs, such as those of OEO grantees; the probability of their entering into the field; and the need for them to become familiar with the specialized audit requirements and to understand fully the audit environment in which they would find themselves. They were looking to GAO for leadership and guidance.

The California State Society of CPAs has since made this program available to other State societies and to the American Institute of CPAs.

#### Conclusion

Because of the sensitivity of the report, it was carefully reviewed at the Washington level prior to its issuance in draft form in July 1972. After obtaining an acceptable set of agency comments and giving recognition to them, the final report was issued in April 1973, almost a year after the May 1972 training sessions. Despite the delay in issuing the final report, at

least some of the corrective actions recommended—the training sessions—were timely implemented because of our starting before the audit was completed and because of the cooperation of the California State Society of CPAs.

To initiate such corrective action, certain things must be present, of course. Most important of all, there must be a pressing need for action to improve the agency's operations. The officials responsible for taking action must be convinced of the fact that there is a need. GAO officials in Washington and the field must be satisfied as to the accuracy and com-

pleteness of our findings and proposed recommendations early in the game. To do this, our policy staff must be brought into the picture as soon as our potential findings begin to take shape.

In this particular case, action was accomplished through a third party—a State CPA society. It would have made no difference, however, if the organization responsible for taking action had been the administrative agency. The point is that it is not necessary to depend upon the audit report to be the action vehicle. Corrective actions can be begun much earlier.

#### **Internal Control in Computer Systems**

"There are two key elements to guarantee: \* \* \* The first is separation of duties. There should be no programmer in the computer room with access to live data. You don't let the programmer operate the machine any more than you let the purchasing agent be in charge of accounts payable. The second element is regular independent reviews, both by the internal staff and by external organizations,"

#### Warren White

Quoted in article on Equity Funding Life Insurance Co. scandal, *Datamation*, June 1973 721618

# Procurement Commission Recommendations on Competitively Awarding Government Contracts

The Commission on Government Procurement was created in November 1969 to study and to recommend to the Congress methods "to promote the economy, efficiency, and effectiveness" of procurement by the executive branch of the Federal Government. The Commission's study was completed and its four-volume report was submitted to the Congress in December 1972.

This article summarizes and explains the rationale behind some of the Commission's recommendations on competitive methods of awarding contracts and proposes certain modifications to the recommendations. It is based on a speech by the author before the American Bar Association's National Institute on the Report of the Commission on Government Procurement, Washington, D.C., May 31, 1973.

This exposition has three simple purposes—to suggest the practical applications of some of the recommendations concerning the competitive award of contracts, to point out in other cases what the recommendations do not cover, and to offer for general consideration some modifications of the recommendations.

#### Formal Advertising

The Commission recommends that agencies be required to use formal advertising for contracts over \$10,000 when procurement circumstances justify its use and that, when advertising is not used, the contracting officer, or in a few sole-source procurements

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someone superior to him, must document why it was not used.<sup>1</sup>

Herb Roback<sup>2</sup> has written that Congressmen prefer formally advertised procurement to negotiated procurement. He writes that the rules of the game are fairly well known, automatically applied, and publicly verifiable. The rules may be automatically applied to responsible bidders, and the winner readily chosen by reference to the lowest price, because the specification employed in formal advertising dictates that the competing products be essentially identical, regardless of which competitor wins the contract. This is an important point to be discussed later under competitive negotiation for fixed-price contracts.

The recommendation on formal advertising proposes two substantive changes in current law, one more apparent than real. That is, current law purports to set forth with considerable specificity the circumstances which justify not using formal advertising. In point of fact, the circumstances are broadly stated in the present statute and their recommended elimination does little, in my judgment, to change the practical effects of the law. In short, the agencies always have exercised broad latitude in deciding whether to use formal advertising and,

under the Commission recommendation, they shall continue to enjoy that latitude.

The second substantive change is that when the contracting officer decides to use competitive negotiation instead of formal advertising, his judgment will not be required by statute to be reviewed and approved by a superior. While this is a real change in the law, I question whether it will result in significant changes in practice. Under the proposed change, regulations may be issued that require the same degree of review as is prescribed by the original procurement statutes of 1947 and 1949.

What the recommendation does not say is whether the General Accounting Office should have the authority to review the reasonableness of the decision to use negotiation instead of formal advertising. The current law is that GAO has the authority to review only those determinations to negotiate that are not required by the statute to be made by the head of the agency and may not review any of the factual findings required by the statute to be in writing and supportive of the determinations.<sup>3</sup>

In years past, controversy accompanied the question whether GAO should be empowered, in practical effect, to reverse a decision to use negotiation. Now, however, the Commission recommends the law authorize competitive negotiation as an acceptable and efficient procurement method

<sup>&</sup>lt;sup>1</sup> Recommendations 3(a), (c), (d), p. 20, and recommendation 7, p. 26, vol. 1, Report of the Commission on Government Procurement. Further citations to recommendations are to the same volume of the cited report.

<sup>&</sup>lt;sup>2</sup> Staff Director, Committee on Government Operations; Staff Director, Subcommittee on Legislation and Military Operations, U.S. House of Representatives.

<sup>&</sup>lt;sup>3</sup> See 51 Comp. Gen. 658 (B-174809, Apr. 20, 1972) and B-174791, Oct. 20, 1972; cf. 10 U.S.C. 2310.

when the use of formal advertising is not justified.<sup>4</sup>

Well, "so what?"—one could ask. Current law already requires the use of formal advertising in some circumstances and authorizes competitive negotiation, and sole-source negotiation for that matter, when formal advertising is not used. Whether negotiation is "acceptable and efficient," in the words of the Commission recommendation, is a matter of conjecture which will not be resolved by cluttering the statute with charitable characterizations of its consequences.

Still, the *tone* of this apparently oblique recommendation is markedly different from current statutory language and therein lies its significant departure from existing written law.

Under the recommendation, one would have to "justify" his decision to use formal advertising. Under current law, he is required to use it "whenever feasible." Competitive negotiation is proposed as an "alternative," and clearly, if one takes into account the narrative of the Commission report backing up the recommendation, the negotiation alternative must be considered at least as acceptable as formal advertising. Moreover, the Commission recommends eliminating the statutory roadblocks to competitively negotiating a procurement after an unsuccessful attempt to formally advertise it. This means that in fixed-price procurements using a specification of doubtful adequacy for formal advertising, the contracting officer has fewer constraints against trying the more nearly

automatic, publicly verifiable method of procurement—less concern that, if formal advertising does not work out, he will be unalterably stuck with the lowest bidder who offers at best a marginal product.

#### Competition

Another practical consequence of this recommendation may prove rather curious, and I do not refer to the suggestion of some that adoption of the recommendation will cause formal advertising to atrophy. The assumption of such a suggestion is that formal advertising deserves its reputation of ubiquity in Government procurement. It does not. Advertising has accounted for less than 15 percent of the annual procurement dollars since World War II. The hard fact is that the Government does not use formal advertising very much, and that, when it does, it is often for relatively insignificant procurements of under \$10,000. If the Commission recommendation to increase the small purchase limitation from \$2,500 to \$10,000 is accepted, that recommendation,5 not the one endorsing competitive negotiation, would itself permit the abandonment of formal advertising in 98 percent of all inilitary procurement actions.

Others suggest the Commission treatment of formal advertising and competitive negotiation emphasizes the distinction between competitive procurements and sole-source procurements. It may be so perceived, but the perception is unlikely to have much to

<sup>&</sup>lt;sup>4</sup> Recommendation 3(b), p. 20.

<sup>&</sup>lt;sup>5</sup> Recommendation 7, p. 26.

do with changing the fact that almost 60 percent of military procurement dollars are spent on sole-source procurements.

The curious practical effect of this Commission recommendation that endorses "competitive procurement,"—don't we all—is that we shall begin to deal with our disagreements about what we mean by "competitive." The procurement laws have not defined "competition," and the term is used in very different ways.

The narrative of the Commission report does define competition—as the effort of sellers, acting independently of each other and offering products or services that are reasonably close substitutes for those offered by other sellers, to secure the business of the buyer by proposing the most attractive contract terms.<sup>6</sup>

The Commission recommendation that most nearly reflects the Commission definition of competition, in my judgment, is the one which proposes to amend the only generally applicable provision on the law books today dealing with competitive negotiation—that is, the statute that requires oral or written discussions with all responsible offerors who submit proposals within a competitive range.<sup>7</sup>

#### Competitive Negotiation

First, the Commission would extend this military statute to civilian agencies.<sup>8</sup> It would require that proposals be solicited from a "competitive" rather than a "maximum" feasible number of firms. While the concept of "competitive number" is vague, it should convey the intent that the desirable number of sources depends on the economic conditions which prevail in the market at the time the purchase is made. The "competitive" number in fixed-price competitions, for example, usually might be taken as that number necessary to generate the rivalry among sellers to which the Commission definition alludes.

R&D procurements of innovative ideas ordinarily are not purchased with fixed-price contracts. Essentially, they are not price competitive. Therefore, participation of a "maximum" number of firms feasible in an R&D procurement does not insure minimum costs, a primary purpose of the statute requiring solicitation of the "maximum" number. Thus, the desirable number of firms for the economic conditions which ordinarily prevail in an R&D market could be less than the maximum feasible.

#### **Fixed-Price Contracts**

The next element of this Commission recommendation on competitive negotiation is quite significant. The current statute on competitive discussions says one need not conduct such discussions if he believes an initial proposal offers a "fair and reasonable" price. Commission studies suggested that proposers do tend to pad their initial fixed-price offers; 10 often,

<sup>&</sup>lt;sup>6</sup> P. 19, vol. 1. Emphasis supplied.

<sup>710</sup> U.S.C. 2304(g).

<sup>&</sup>lt;sup>8</sup> Recommendation 4(a), p. 22.

<sup>9</sup> Recommendation 4(b), p. 22.

<sup>10</sup> P. 23, vol. 1.

the Commission speculated, because the specification was too imprecise to communicate to sellers a common understanding of the Government's actual needs. It felt discussions could and do clear up misunderstandings about what the Government wants. It believed the Government probably would end up getting lower offers if it used discussions to make sure everyone had the same understanding of what the Government expected to get out of the bargain.<sup>11</sup>

In view of this, the Commission proposed that the statute be amended to require the issuance of regulations concerning fixed-price competitions; which regulations must, in turn, facilitate the use of discussions when necessary for a common understanding of product specifications. 12 This "common understanding" harks back to the Commission definition of competition as a phenomenon involving products or services that are "reasonably close substitutes" one for the other. The necessity in these negotiated procurements for a common understanding of the specifications is also related, in my opinion, to the Commission's analysis of formal advertising. The Commission concluded that the unique feature of formal advertising is the demand for essential identity between, not merely a common understanding of, competing products or services.13

The Commission appears to have decided that competitive discussions

ordinarily should take place in a fixedprice procurement that must be negotiated because the specification is not sufficiently precise to demand at least functional identity between competing products or services. Such discussions would strive to establish that competing products be reasonably close substitutes for each other, perhaps even functionally identical insofar as the Government's needs are concerned. Of course, the statute should not dictate that the Government bargain endlessly.14 It is within reasonable limits that, in the Commission's judgment, such discussions should aim at establishing that common understanding that may permit a fixed-price contract to be awarded on the basis of the lowest price finally offered.15

If this is a sound idea, then the implementation of the idea should be required by the statute, not simply set forth in the statute, with directions that the regulations ought to require its implementation.

#### Cost-Type Contracts

After addressing fixed-price negotiated competitions, the recommendation turns to competitions that are not expected to be awarded primarily on the basis of the lowest price. Here the extent of the competition in many cases will be limited largely to technical rivalry between firms, and the degree to which their products or services represent reasonably close substitutes may be considerably less

<sup>&</sup>lt;sup>11</sup> Рр. 23-24, vol. 1.

<sup>&</sup>lt;sup>12</sup> Recommendation 4(c), p. 22. Emphasis supplied.

<sup>&</sup>lt;sup>13</sup> P. 19, vol. 1.

<sup>14</sup> P. 24, vol. 1.

<sup>&</sup>lt;sup>15</sup> P. 24, vol. 1.

than the degree exhibited in fixedprice competitions. Indeed, the Commission report points out that such commonality often is the antithesis of a good R&D procurement, thus precluding the full use of competitive techniques.<sup>16</sup>

The Commission, taking into account the practical absence of competition that centers on price in these procurements, attempted to provide for at least as common a baseline as feasible to evaluate cost-type proposals and for assurance that the contractors would know the baseline of evaluation. Therefore, it recommended a new statutory requirement that the Government solicitation of offers set forth both the evaluation criteria and their relative importance.17 The Commission believed nothing could be more basic to sellers than knowing what the buyer really wants. It believed that such information might not be uniformly dispensed without publishing in the solicitation the relative importance of the Government's evaluation criteria. This recommendation is in accord with numerous GAO decisions.

You will observe that the Commis-

sion recommendations and the narrative of its report recognize substantial differences between a contest for a fixed-price contract and one for a costtype contract. It would be desirable to alter the scheme of the Commission recommendation by dividing "competitive negotiation" into two separate categories of recognized procurement methods. While this might have the appearance of being an unduly complicated departure from the current and simple dichotomy of "advertising" and "negotiation," it more accurately reflects, in a still general way, the procurement methods we actually use.

Dividing negotiation into its components-competitive fixed-price, competitive cost-type, and sole-sourcewould facilitate devising procedures for each, by way of regulations, of immeasurably greater clarity. For example, it might facilitate coming up with one set of rules on competitive discussions for fixed-price contractstheir length, scope, and frequency-to seek a common understanding of the specifications and the lowest price and another set for cost-type contracts in R&D procurements to deal with such problems as those characterized by the jargon "technical transfusion."

<sup>&</sup>lt;sup>16</sup> P. 43. vol. 2.

<sup>&</sup>lt;sup>17</sup> Recommendation 4(d), p. 22.

# **Evaluating Results of Government Programs**

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Independently evaluating the results of Government programs is becoming increasingly important in the work of GAO and other audit organizations. This paper discusses a few basic principles for evaluating program results. It is based on a presentation given at conferences for State and local auditors on the GAO audit standards for governmental organizations, programs, activities, and functions and published in 1972.

Let us look at how auditing program results is related to more familiar types of auditing. As shown in figure 1, the activities which constitute a program can be classified as inputs, operation, or outputs. Data on outputs (program achievements, impact, and benefits) is fed back to the program manager and provides information for allocating inputs (funds, skills, and facilities) for the next budget cycle. GAO's audit standards set forth three categories of governmental auditing: (1) financial and compliance, (2) economy and efficiency, and (3) program results.1

Although relationships between the three categories of auditing and the three program activities are not perfectly clear, we generally consider that:

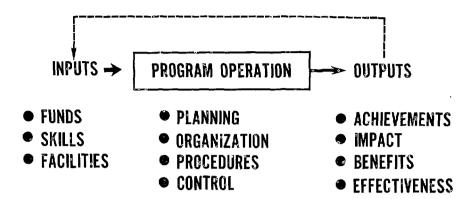
- —Financial and compliance auditing deals with whether financial operations are properly conducted and financial reports are fairly presented as well as with whether inputs are being used in accordance with laws and regulations.
- Economy and efficiency auditing deals with whether inputs are being used in an economical and efficient manner to carry out the program operation.
- -Program results auditing is concerned with whether the desired

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<sup>&</sup>lt;sup>1</sup> "Standards for Audit of Governmental Organizations, Programs, Activities and Functions" (U.S. General Accounting Office, June 1972).

FIGURE 1

#### A PROGRAM AS A SYSTEM



outputs or results as set forth in the program objectives are being achieved.

Since our discussion deals with auditing program results, we will be primarily concerned with outputs.

The audit standards list four fundamental considerations for auditing program results. These apply whether the auditor is making an original evaluation or whether he is reviewing evaluations made by or for the agency being audited. The standards say the auditor should consider:

- —Relevance and validity of effectiveness criteria. He should recast these in the form of steps to be performed; that is, he should clarify goals and translate them into appropriate measurable units.
- —Appropriateness of methods. He should formulate valid methods, or a study design, to measure program effectiveness.
- -Accuracy of data. He should collect valid and reliable data.

—Reliability of results. He should use valid analyses to draw conclusions.

In essence, then, the four basic considerations relate to (1) measures of effectiveness, (2) study design, (3) data collection, and (4) data analysis.

#### Measures of Effectiveness

Before a measure of effectiveness can be developed, goals must be identified and clarified. Sometimes goals can be taken directly from the legislation. In other cases they have to be formulated by reviewing the legislation, legislative hearings, chief executive's speeches, policy memorandums, etc. It is essential that the auditor ask the agencies what their goals are.

Most programs have many goals, each with a different priority, but the auditor can often concentrate on one or two of the most significant ones.

After goals are identified, they must be converted into measurable terms. Most authorities would agree that a good measure of effectiveness should be:

- -Relevant to one or more program goals.
- —Reproducible; that is, suitable for explanation and documentation so other auditors or evaluators can duplicate or verify it.
- --- Uncomplicated.
- -Low in cost.
- —Sensitive to program changes. For example, a program in aerospace safety may not be adequately measured by the number of accidents or deaths in a year since there are so few. An alternative, more sensitive measure, such as the number of "close calls" or safety violations, may have to be used.
- -Understandable.
- —Acceptable to the public, agency officials, legislators, and others that would use the audit for decisionmaking and for directing program changes.

Auditors must often rely on initiative and imagination to develop measures of effectiveness. Following are a few examples of how program goals have been translated into measures of effectiveness.

#### **Waste Collection**

Current measures for waste collection are primarily efficiency measures; e.g., tons collected, frequency of service, and miles of streets cleaned. The District of Columbia Government used a new approach, developed by The Urban Institute, to measure the effec-

tiveness of its waste collection program's goal of promoting health, safety, and esthetics. In the new approach, detailed photographic ratings classify streets and alleys according to the degree of unsightliness, health hazards, or fire hazards.

Sample photographs were used as guides for evaluating conditions. For example, one photograph showed an alley with battered trash containers without lids and large amounts of solid waste scattered about; this was designated a type 4 condition. Another photograph showed an insignificant amount of waste which was designated a type 1 condition. Thus the condition of Washington's streets and alleys could be assessed; e.g., 50 percent in type 2 condition, 30 percent in type 3 condition, and 20 percent in type 4 condition.

#### **Water Quality**

The Environmental Protection Agency developed detailed criteria for measuring water quality. The measures included the number of coliform bacteria, chlorides, and DDT per liter of water. These are highly technical and quantitative microbiological and chemical measures that are standardized and reproducible.

#### **Highway Safety**

The goal of a California program for intensifying the patrol of selected highways was to increase safety. The office of auditor general of the State used the number of automobile accidents as the measure of program effectiveness. It compared the number of accidents before the program was started with the number of accidents after the program was implemented for equivalent time periods; i.e., same day of the week and same hour of the day. The office also used the number and rate of accidents for the entire State during the same period and for other selected highways with normal patrolling as bases for comparison.

#### Medical Care

The legislative auditor of the State of Hawaii, with the help of consultants, evaluated medical assistance for welfare recipients. They used as their measure of effectiveness the percentage of eligible people who were actually receiving care and used several indexes to measure the quality of care. For example, expert clinical surveyors developed criteria for optimal maternity care, such as the type of nursing service and physician counseling. Using these criteria, the clinical surveyors rated hospitals from 1 to 10 on how well they provided optimal care.

#### Study Design

Study design concerns the methods for using measures of effectiveness. Figure 2 shows some of the major methods. The expression "treat" refers to conducting the treatment or program; e.g., cleaning the streets of Washington or purifying the public water supplies. The expression "observe" means measuring; e.g., rating the conditions of the streets or measuring the amount of bacteria in the water.

The study designs are as follows:

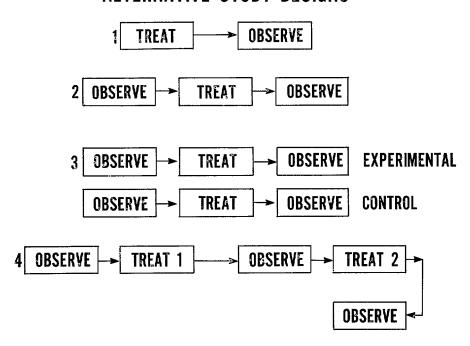
- —Design 1. Results are observed after a program or treatment is completed. This is the approach that has often been used in auditing.
- —Design 2. An observation is made before the program starts and again after it is completed. This design is technically better than design 1 because it provides a base for comparing program results.
- —Design 3. Two comparable groups are selected; the control group receives the conventional treatment, and the experimental group receives the new treatment or program. As in design 2, before-andafter observations are made. Study design 3 is the true experiment.
- —Design 4. Observations are alternated with treatments. After each observation, the program is improved on the basis of the observation. This is referred to as formative evaluation.

The true experiment (study design 3) is theoretically the best method because it can isolate the effect of the program from the effects of other factors that operate with or without the program. It can accommodate the effects of testing and special events. For example, the fact that program participants know they are being tested often affects the program outcome. By testing both an experimental and a control group, one can compensate for this.

However, the true experiment is

FIGURE 2

#### ALTERNATIVE STUDY DESIGNS



sometimes not practical because, to insure the purity of the experiment, the program should not be altered after it has started. Since experiments often run several years, the information may come too late to be valuable. Also, laboratory conditions usually do not exist for large-scale, demonstration-type experiments, and if ideal conditions are available, it is difficult to generalize the finding to wider scale operations.

The auditor must determine if the advantages of the true experiment or study designs 2 or 4 are worth the additional cost and are feasible with the time and resources available. Often the auditor may find that study design 2 is the best compromise between post-

auditing and the true experiment.

Study design also concerns the number of measurements to be made. Usually one does not measure all the population or items but rather selects a suitable sample.

#### **Data Collection**

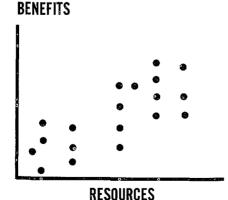
The third element in auditing program results is data collection. The auditor must first consider sources of data—he can either use existing records or make surveys and tests. It is important to note that, in auditing program results, the auditor often creates his own data by surveying and testing rather than relying on existing records and documents.

When the auditor collects data, obviously it must be accurate. In making any measurements, a number of factors can jeopardize the desired accuracy. The study design may have a good sampling plan, but in actual operation the plan may break down. For example, in a house-to-house survey, more people than anticipated may not be home and many people may refuse to answer or may not be responsive to the questions.

Standardized conditions may not be present. For example, for a reading program, one might use as the measure of effectiveness the scores on a standardized reading test. The test requires certain standardized conditions, such as a quiet classroom and timed examinations. In practice, however, chaotic testing conditions may invalidate the data. Also, the examiners and those being tested may be so emotionally involved in the experiment that the data becomes invalid.

Finally, the auditor must be con-

# FIGURE 3 VALID ANALYSIS



cerned with purely mechanical errors, such as those that can easily occur in tabulating data, transferring data from one sheet to another, and punching cards for computers.

#### Data Analysis

The fourth element of auditing program results concerns how output or benefits vary with inputs or resources. Figure 3 is a graph of a hypothetical program. Note that, for a given resource level, there is no single benefit level; the points are scattered over the chart. Each point might represent one water supply or one hospital of the total number audited. In the graph the benefits or outputs (such as number of patients receiving optimal care) seem to increase as inputs or resources (such as dollars or staffs) increase.

The graph raises several questions: What is the true benefit level? Did some outside factor influence the results? Is there any real relationship between the resources expended and benefits realized? Before drawing any conclusions, it is usually necessary to do more than merely add and average the results. A number of graphical and statistical methods of manipulating data can help in arriving at conclusions.

### Reviewing Evaluations of Others

Auditing program results often includes reviewing others' audits or evaluations. Because resources for auditing are usually limited, the auditor may gain some of the benefits of study designs 2, 3, or 4 if he makes all possible use of others' work with these designs. Listed below, under each of the four elements, are some of the activities involved in appraising audits by others.

- 1. Measures of effectiveness.
  - -Verify goal statements for source and accuracy.
  - —Review the appropriateness of measures of effectiveness by comparing them with the seven criteria for good measures.
- 2. Study design.
  - Evaluate the validity of the study design.
  - -Examine the sampling plan.
  - —Compare the match between experimental and control groups.
- 3. Data collection.
  - . —Monitor collection procedures for completeness and accuracy.
    - -Collect sample data and compare it with others' data.
    - —Require the data collector to certify the sources and methods of collection.
- 4. Data analysis.
  - -Rerun the data analysis.
  - —Verify it with statistical techniques.

One of the important activities is monitoring the data collection procedures, because the validity of data collection cannot be verified once the study is complete. This means that a concurrent audit, rather than a postaudit, is necessary.

Finally, the auditor must recognize that, in auditing program results, he will often deal with highly specialized programs and may require assistance from specialists. Sources of assistance are:

- —The executive agencies of Federal, State, and local governments
- ---Universities
- -Professional societies
- -Consultants
- -Contractors
- -Private foundations
- -Scientific literature

In conclusion, if the auditor understands and focuses on (1) measures of effectiveness, (2) study design, (3) data collection, and (4) data analysis, he can reduce the complexity of his problem and can meet the growing demand for more and better program audits.

# **Economics of Inventory Control**

7.216.21

Inventory control is important to management in almost all enterprises, including Government operations which are financed with public funds. This article discusses mathematical and quantitative methods of helping managers in this important function.

The goals of inventory management are to:

- -provide stock to users when and where it is needed,
- -keep investment in inventory low, and
- —obtain the lowest available prices for items purchased, quality considered.

The second goal conflicts with the first and the third. Buying in large quantities reduces the probability of stockouts, reduces the cost of placing and receiving replenishment orders, and tends to result in lower prices and transportation costs. But the larger quantities tend to increase investment and the cost of holding the inventory.

The inventory manager must seek a balance between the costs of holding inventory, ordering additional quantities, and running out of stock in deciding:

- -when to acquire additional stock
- -how much to acquire.

Each of these decisions involves risks. Both require forecasts of future demand and leadtime to acquire additional stock. Such forecasts are seldom free of error. Demand usually varies from month to month and delivery time from order to order. If he is to achieve a reasonable balance between the costs, the manager must assess the probability of an error in his forecasting and provide for it.

# The Structure of Inventory Systems

Knowledge of the properties of a

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Mr. Hodges is a member of the Systems Analysis Staff of the Division of Financial and General Management Studies. He has been with GAO since 1969, beginning with the Kansas City regional office. He holds a Master's degree in mathematics from Kansas State College and is a member of The Institute of Management Sciences.

system is essential for obtaining an inventory policy which will adequately represent the system. Omitting properties, or making wrong assumptions about properties, will usually lead to improper control of inventory. In establishing policy, the inventory manager should consider at least the following properties.

- The inventory's spatial configuration: For example, do demands occur at a single outlet or at a number of outlets? Does the system have one, two, or several sources of supply?
- 2. Resource constraints affecting inventory: For any inventory system, the manager must know the nature of budgetary restrictions, limitation of available warehouse floorspace, or any other relevant forces.
- 3. The kinds of items carried:
  Some inventory systems handle
  only a single item while others
  carry as many as 1,500,000.
  These items may be reparable or
  nonreparable; they may become
  obsolete very rapidly or they
  may be staple items.
- 4. The processes generating requirements: The rate of demands for inventory items can rarely be predicted with certainty. How well an inventory system operates depends to a considerable extent on how much its managers learn about the demand generation process.

Sophisticated techniques and mathematical models have been developed for solving inventory control problems. These techniques are described extensively in a number of publications. One that is very readable is "Production and Inventory Control Principles and Techniques" by G. W. Plossl and O. W. Wight, Prentice Hall, 1967.1 For inventories containing very large numbers of items, full employment of these techniques, many of which are beyond the scope of this paper, requires a computer to handle the thousands of computations involved. But some application of the techniques are practicable without a computer-at least for the relatively few items used in large quantities. Any system for controlling inventory should be closely monitored so that it can be adjusted as necessary to obtain the desired results.

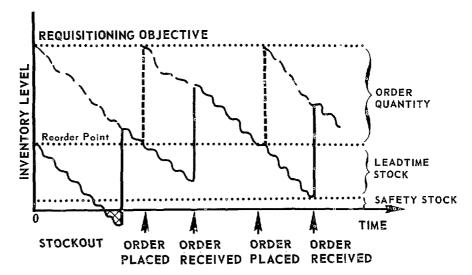
#### When To Buy

Obviously, if the manager waits to replenish stock until all on hand is consumed, he will be out of stock while a replenishment order is being placed, processed by the supplier, delivered, inspected, and placed in stock. To avoid such stockouts he must estimate how much stock will be needed so that a replenishment order can be placed when stock on hand reaches a certain point. Since both use and time to process replenishment orders may vary from the estimate, the reorder point should ordinarily be increased to include a quantity for safety.

The inventory use and replenish-

<sup>&</sup>lt;sup>1</sup> See also: "Basic Principles of Wholesale IMPACT-Inventory Management Program and Control Techniques," 2d ed., IBM, March 1972.

## ---- NET INVENTORY ---- INVENTORY POSITION



ment cycle is presented in the following graph.

The inventory manager must set reorder points with care because, if they are too high, holding costs are excessive and, if they are too low, the costs of stockouts are excessive. In trying for a balance between these two consequences, the manager must answer a number of interrelated questions and put them together in a rational way.

A straightforward estimate of the quantity to be consumed during leadtime can be made after two questions are answered.

1. How long does it take to replenish the stock? This is an estimate based on experience with the item concerning the time required to place an order, have it processed and delivered by the supplier, inspect it, and place it in stock ready for issue.

What is the rate of consumption? Such an estimate is frequently based on the average usage during prior periods.<sup>2</sup>

Setting safety levels, the remainder of the reorder point stock, requires answers to three additional questions.

1. How often can stockouts be tolerated? This may be expressed as number of stockouts a year. In theory, the answer should be designed to balance the cost of being out of stock<sup>3</sup> and the

<sup>&</sup>lt;sup>2</sup> Demand forecasts are frequently made using smoothing constants. Under a method commonly referred to as exponential smoothing, a forecast for a future period is comprised of X percent of consumption during the most recent period plus 1-X percent of the previous forecast. Setting X at 15 percent simulates about a 12 period moving average. Smoothing constants are generally considered equal to  $2/(1+\underline{n})$  where  $\underline{n}$  is the number of periods to be simulated.

<sup>&</sup>lt;sup>8</sup> Examples of the kinds of costs involved will be given later.

cost of holding the safety stock. As a practical matter, the cost of being out of stock can seldom be determined. Therefore, the number of tolerable stockouts is usually a policy decision subject to adjustment as experience is gained on an item.

- 2. How often is the stock to be replenished? This is the quotient of estimated annual demand divided by the order quantity. As shown by the preceding graph, a stockout can occur during any replenishment cycle. Frequent replenishments increase the risk of stockouts.
- 3. How reliable are the estimates of periodic demand and leadtime? This requires an estimate of the standard deviation of periodic demands, a statistical measure of the periodic variations in demand. For the mathematically inclined the standard deviation is equal to

$$\sqrt{\frac{\Sigma(X-\overline{X})^2}{N-1}}$$
 where

 $\Sigma =$  summation

X = demand for each period

 $\overline{\mathbf{X}}$  == average demand

N = number of periods considered

Forecasts of demand can be substituted for average demand in the formula. Another simpler method is to estimate the standard deviation as equal to 1½ times the average deviation from the periodic forecasts. For this purpose the differences between actual and forecast demand are added

regardless of whether the forecasts are over or under actual demand.

The answers to questions 1 and 2 are necessary to determine the desired probability established by management that a stockout will not occur during a replenishment cycle. For example, if management establishes an objective of one stockout a year and stock is to be replenished 20 times a year, the probability of a stockout must be reduced to 1/20 or 5 percent. Stated another way, the probability that stock will not be exhausted must be 95 percent.<sup>4</sup>

The answer to when to buy is: at the time the stock on hand plus any undelivered quantity on order reaches the reorder point. The reorder point should include leadtime stock and adequate but not excessive safety level stock.

#### How Much To Buy

This decision requires consideration of at least:

- -estimated periodic demand,
- -cost to process an order,
- -cost to hold the inventory, and
- -quantity discounts.

If quantity discounts are not available, that is if the price for the item including transportation cost is not affected by the size of the order, the objective is to minimize annual ordering and holding costs. These costs are lowest when they are equal. To deter-

<sup>&#</sup>x27;This percent is important because it is a guide to the factor (1.65 for 95 percent) which multiplied by the estimated standard deviation during leadtime should show the quantity needed for safety stock.

mine the order size which will equalize these costs, the manager must solve the economic order quantity (EOQ) formula.

The basic formula is relatively simple and can be easily incorporated into a computer program:

$$Q = \sqrt{\frac{2DP}{IC}}$$
 where

Q == the economic order quantity

D == annual demand

P == the cost of processing an order

C = price of the item

I == holding cost per year as a percent of average inventory investment

The formula has a number of expansions to fit different circumstances.

For example, if two or more items are to be acquired in a single order, the formula becomes

$$Q_i = D_i \ \sqrt{\frac{2P}{I(\Sigma D_i C_i)}} \qquad \text{where} \qquad$$

 $Q_i$  = the economic order quantity for any of the items

 $D_i = \text{quantity of annual demand for}$  any of the items

P = cost of processing the order

 $(\Sigma D_i C_i)$  = value of annual demands for all the items combined in the order

This expansion recognizes that under a combined order the ordering cost for each item is reduced. For example, consider the following assumed data:

	Items		
	$\overline{A}$	В	Combined
Ordering cost	\$ 25	\$ 25	\$ 40.50
Holding cost	15%	15%	15%
Annual demand	\$59,820	\$22,320	\$82,140.00
EOQ (combined orders)	<b>\$ 4,845</b>	\$ 1,806	\$ 6,651.00
EOQ (separate orders)	<b>\$ 4,465</b>	\$ 2,725	\$ 7,190.00
Ordering and holding cost: combined orders separate orders	<b>\$</b> 770	\$ 409	\$ 1,000.00 \$ 1,179.00

If a computer is not available, tables can be constructed for ready reference using a desk calculator. A convenient form relates demand to months of supply as indicated below.

Annual demand	Months of supply
\$ 5,001— 10,000	6
\$10,001— 15,000	4
•	•
•	•
•	•
\$50,001 60,000	1

#### **Quantity Discounts**

Suppliers frequently offer lower prices if orders exceed stipulated quantities. If such discounts are available, they may offer greater economy than the balancing of ordering and holding costs. Their availability complicates the process of determining the optimal purchase quantity, but not unduly. The process may require one or a series of trial computations.

Step 1. Use the EOO formula and

calculate a quantity at the lowest price.

- a. If the lowest price is available at that quantity, it is the optimal purchase quantity.
- b. If the quantity is less than the price break quantity, compute the annual cost of buying the price break quantity and proceed to step 2.
- Step 2. Use the EOQ formula and calculate a quantity at the next lowest price.
  - a. If the price is available at that quantity compute the annual cost of buying that quantity and compare this amount with the amount computed in 1(b). The lower of the two shows the optimal quantity.
  - b. If the quantity is less than the price break quantity, compute the

annual cost of buying the price break quantity. Keep repeating the step 2 process, comparing annual costs until the price used in the EOQ formula is available for the computed quantity. The optimal quantity is that which results in the lowest annual cost. It will always be equal to or greater than the EOQ quantity.

Example: The following data applies to a low-cost item.

Annual demand	600
Ordering cost	\$8.00
Holding cost	20%
Prices available for orders of:	·
less than 500	\$0.30
500 but less than 1,000	0.29
1,000 or more	0.28

The results of the process described above are shown in the following table.

	Step 1	Step 2	Repeated step 2
Price break quantity	1,000	500	Less than 500
Price	\$ 0.28	\$ 0.29	\$ 0.30
EOQ	414	406	400
Price available at EOQ	No	No	Yes
Annual cost:			
Price available at EOQ	\$168.00	\$174.00	\$180.00
Ordering cost	4.80	9.60	12.00
Holding cost	28.00	14.50	12.00
Total	\$200.80	\$198.10	\$204.00

In this case, the expected annual cost of buying 500 is less than that of buying the EOQ amount and the optimal quantity occurs at a price break. But the 28 cent price is not the bargain it might appear because increased holding costs for buying 1,000 more than offsets the 1 cent price savings.

Whether to make the additional in-

vestment to obtain a price break naturally involves consideration of such constraints as limited storage space, shelf life, and limited funds. If a number of items are considered together and funds are not available for all price breaks, a logical choice is to select those that offer the greatest return on the additional investment.

#### **Determining What Costs To Use**

Holding, ordering, and stockout costs should be included to the extent that they can be expected to vary by inventory investment, orders placed, and stockouts. As a practical matter, the inventory manager will usually have to rely on the best estimates of such costs that can be developed from available cost accounting records.

Holding cost is the cost of physically storing the inventory plus the cost of the capital required for inventory investment. It is customary to compute holding costs as a fraction of the cost of items carried in inventory per unit of time. This estimate of cost should include all costs that vary with inventory size, such as:

- The cost of storage, including allowances for deterioration, obsolescence, and maintenance while in storage.
- 2. The cost of money tied up in inventories.
- 3. The cost of taxes on inventories.
- 4. The cost of insurance of inventories.

Ordering cost (sometimes referred to as setup or replacement cost) is the variable cost of placing an order (or setting up production). The formula implies that it is independent of the size of the order, but higher costs should be used in the formula for items requiring additional procurement or quality control. Ordering generally includes:

- 1. Requirements review.
- Contract placement and administration, including inspection and acceptance.

- 3. Preparation, recording, and submission of requirements requisitions and purchase requests.
- Control and documentation efforts.
- 5. Receiving shipments.

Shortage cost is the cost associated with being our of stock when an item is demanded. This cost may be impossible to determine because it involves a number of intangibles. The inventory manager may be forced to rely on intuitive judgments to decide how frequently stockouts can be tolerated without determining their cost. If this cost is estimated some of the costs that should be included are

- 1. Overtime costs.
- Special clerical and administrative costs.
- 3. Loss of specific sales.
- 4. Loss of good will.
- 5. Loss of customers.
- 6. Equipment out of commission for lack of parts.

#### Effect of Errors in Estimating Costs

An examination of the EOQ formula will show that the optimal order quantity is not very sensitive to changes in any one of the variables. The EOQ increases less than proportionately with increases in the ordering cost P and demand rate D, and decreases in the holding cost I. For example, if the rate D quadruples, and the other variables remain the same, then the EOQ only doubles. Analogously, if the value of I quadruples, then the EOQ only decreases by a half.

Although ordering and holding costs should be as accurate as practicable, consistent with a certain amount of averaging, the small errors inherent in the process do not invalidate its use. A rule of thumb followed by some managers is that, if an error in these factors does not make more than 10 percent change in the expression  $\sqrt{\frac{2P}{1C}}^5$ , the error is insignificant.

In many situations the vendor requires that the amount ordered be a "convenient" number. Because the EOQ formula is not very sensitive to changes in cost estimates, there is very little impact on total cost when only a near optimal quantity is acquired. For example, if the optimal quantity is 53, an order of 50 or 60 may be a more desirable amount.

#### Summary

Effective inventory management requires an assessment of probabilities and costs or consequences. Although some judgments may have to be made more or less intuitively, management

can usually be refined after some experience with the items.

Armed with adequate information on historical demand, ordering and holding costs, quantity discounts, and appropriate techniques of analysis, the inventory manager is in a position to maintain the inventory at levels which keep risks to tolerable limits but do not inordinately increase costs.

If the manager is faced with such constraints as limited ability to place orders, limited storage space, or limited procurement funds, sophisticated techniques of aggregate inventory management are available which permit optimal solutions within the constraints. These usually require use of a computer to handle the thousands of computations they employ.

Some constraints are usually necessary in any system to limit (1) procurements of shelf-life items or years of supply of slow moving items and (2) reorder frequence.

Use of the techniques described cannot be expected to result in a foolproof system. They have in many instances, however, provided management increased ability to establish and monitor inventory policy.

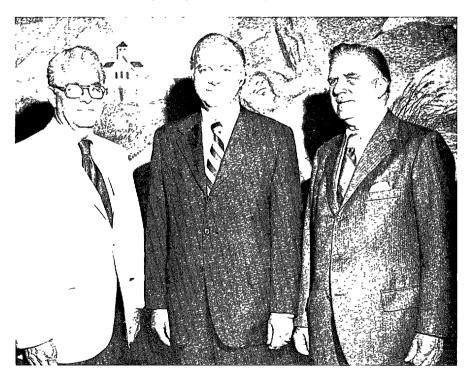
<sup>&</sup>lt;sup>5</sup> Same as the EOQ formula but excluding annual demand.

# A Reflective View of the GAO

The following comments have been excerpted from the remarks of Dr. Roger W. Heyns, President of the American Council on Education, made at the annual GAO honor awards ceremonies on June 15, 1973.

In the more than fifty years of its existence, this agency has achieved a position of enormous respect by virtue

of its competence and its integrity. I read with interest and appreciation of its growth in responsibilities and the



Pictured before the June 15 GAO honor awards ceremonies are from the left: Dr. Roger W. Heyns, President, American Council on Education: Elmer B. Staats, Comptroller General; and James E. Webb, former Administrator of the National Aeronautics and Space Administration, who received the GAO Award for Public Service.

scope of its activities. This growth gives much more eloquent testimony, of course, to the regard in which this agency is held than any words of mine. I am sure that it is, at least it should be, a source of gratification and pride to all of you that our Nation increasingly reposed greater and greater trust in your capable hands. All of you are inheritors of this great tradition; you are now its stewards whose responsibility it is to pass it on intact and further enhanced. I am sure you will agree that, although all of you share in both the tradition and the task of its successful transmission. the integrity, competence, and wisdom of the present Comptroller General have been key ingredients in this reputation of which I have spoken.

\* \* \* \* \*

I have all my life been an educator and much of that time I have spent defending institutional budgets and documenting appropriation requests. Most of you can appreciate that, in that role, I have often been beset by unfriendly questions about the usefulness of education or by requests for documentation that education did anything useful or, at any rate, did anything anywhere near worth the cost. Some of the questions may even have come from people not too different from yourselves. So imagine my pleasure to read in Mr. Staats' testimony before the Legislative Subcommittee of the Appropriations Committee the following language under General Performance Highlights:

It is always difficult to translate the full effect of GAO activities in terms of improvement of the operation and effectiveness of the Government. Many actions taken in response to our recommendations cannot readily be measured in terms of dollar savings. \* \* \* However, we do not believe that dollar savings is a very good test of our effectiveness.

I rather relished this quote and might even find some occasion to use it when I am confronted with a particularly intractable effectiveness problem. At the very least, I came away from that sentence thinking I have been in unexpectedly good company.

\* \* \* \* \*

I am sure that many of you have noted at least some of the many studies that indicate the decline in public confidence over the past decade in virtually all of the institutions of our society—education, business, the military, the church, the government—you name it. None has escaped. Our social science knowledge is not sufficiently advanced to tell us where the threshold of disaster is but we all know that the trend is in the wrong direction and that if it continues we will reach that point.

The reversal of the trend is the responsibility of each of us in whatever our walk of life. But no group that I can think of is more crucial in this process than you—the people in this office. Confidence in government—in its integrity, in its effectiveness and in its sensitivity—is more crucial to our well-being than in any other of our social institutions. The task each of us has is to make our institutions work; you have a unique role among those whose task it is to

make the government work. It is the government's sensitivity to the legitimate needs of its citizens in its effective operation of programs directed toward our national goals and in its essential fairness, treating all men equitably and justly, that the confidence of the people resides. And you have been given a task of special responsibility to monitor the behavior of all public servants to that end. And as I understand your role it is not merely

to prevent fraud or ensure minimum compliance with the law—but to work positively, to facilitate, to be enablers as well as prohibitors—in short, to achieve effectiveness toward our collective goals—life, liberty, and the pursuit of happiness.

John Gardner once said that the greatest privilege one could have was to be involved in a significant enterprise and to be needed in it. You have that privilege and you are needed.

#### In the Bag

What is the budget system? The word "budget" is derived from the French word "bougette" which translated means "a little bag." It is a term used in dealing with the raising and expending of money by local or national governments, corporations, or other bodies which have to deal with questions of this kind. The term was first used by the British. The pouch in which the chancellor of the exchequer carried his financial papers to Parliament was called "the budget."

Representative Fred S. Purnell
of Indiana
During debates on budget and
accounting legislation
Congressional Record, October 20, 1919

### The Watchdog Reports

The following items from past issues of The Watchdog, the monthly newspaper of the GAO Employees Association, are republished for the interest of GAO's present professional staff.

#### Weitzel Sworn in as Assistant Comptroller

November 1953

Frank H. Weitzel, appointed by the President as Assistant Comptroller General of the United States, was sworn in October 12 at 10 in the General Accounting Office auditorium by Judge James R. Kirkland of the United States District Court for the District of Columbia. Comptroller General Lindsay C. Warren, in presenting Mr. Weitzel to take the oath of office, said:

"On June 29, 1953, Frank L. Yates, the Assistant Comptroller General of the United States, unexpectedly passed to his final reward. It was a crushing blow to all of the personnel of the General Accounting Office, who loved and admired him. His memory will long be treasured here for he was a noble public servant and a friend of man.

"In selecting his successor we feel honored and proud that the President came to this office to fill the vacancy. There were several of our officials who were finely equipped for this important post, but I think all of us will agree that no one could have been chosen who would have met with greater approbation than Frank H. Weitzel. There is no finer example of the career public servant which he has so brilliantly typified. His appointment has thrilled not only the General Accounting Office but the Government as a whole.

"Closely associated with him as I have been over the years, I know him to be a man of lofty character, great outstanding ability, integrity, high ideals. He is fair, patient, steadfast, and unafraid. I know him to be dedicated to the preservation of the independence of the General Accounting Office, to its nonpartisan and nonpolitical status, and to its position as the agent of the Congress and a part of the legislative branch of the Government. Should those who have the responsibility for the Office, either now or in the future, ever fail to follow any one of these principles, the effectiveness of our work will be destroved. In his new office. Frank Weitzel will be the same unspoiled, unaffected, modest young man as we work daily side by side with the executive branch for a better and more efficient Government.

#### Robert F. Keller Succeeds Weitzel

November 1953

Comptroller General Lindsay C. Warren has announced the appointment of Robert F. Keller, already an Assistant to the Comptroller General, to succeed Mr. Frank H. Weitzel as his Assistant in charge of congressional and interagency relationships of the General Accounting Office.

Mr. Keller was born in Washington, D.C., on August 22, 1913, and had primary and secondary education here. He attended George Washington University and the Washington College of Law where he obtained his LL.B. degree. He also attended the Benjamin Franklin University where he was awarded a B.C.S. degree.

Mr. Keller was appointed to a clerk position on July 16, 1935, and was later promoted to a Claims Developer, Claims Examiner, Senior Claims Examiner, Principal Claims Examiner, Principal Review Examiner. He joined the Navy in 1942 as an Ensign and was promoted to Lieutenant (jg) and Lieutenant. He returned to the Office in 1946 as an attorney in the Comptroller General's Office. He was appointed an Assistant the to Comptroller General in 1950.

During his military service Mr. Keller was cited for outstanding performance of duty and was awarded the Commendation Ribbon by James Forrestal, Secretary of the Navy.

#### Ralph E. Ramsey Wins Promotion

November 1953

The Comptroller General announced the appointment of Ralph E. Ramsey as Associate Chief of Investigations to succeed Robert F. Cartwright, who has been appointed Deputy Administrator of the State Department's Bureau of Security, Consular Affairs and Personnel.

#### Goodby, Mr. Warren

April 1954

The high esteem with which Lindsay C. Warren, the Comptroller General of the United States, is held by all the employees of the General Accounting Office was touchingly reflected when the news was released that he would retire from the Office on April 30.

Mr. Warren, who is retiring after completing  $13\frac{1}{2}$  of a 15-year term, has made the General Accounting Office the most highly respected Federal agency today. His fairness and understanding has earned for him the respect of all government leaders, but he has been looked upon as a friend by his employees.

The employees of the GAO already feel the loss due to his retirement but are happy that he will be able to enjoy the fruits of years of dynamic leadership.

President Eisenhower put it well when he said in his letter accepting our Comptroller General's retirement: "You have left a lasting mark on government \* \* \* and can take deep pride in so vast a contribution to better, more efficient governmental operation."

Mr. Warren advised each Senator and Congressman of his request for retirement which was necessitated by advice of his doctors and called on them to "be ever alert to and adamant against attempts to weaken or destroy the powers of the General Accounting Office or to affect its independent status."

He went on to say that the "General Accounting Office is an efficient and hard-hitting agency of which the Congress, the President, and the American people can be justly proud. We have earned and gained the confidence of all three. I am proud there has never been a breath of scandal concerning the work of the Office and its employees."

"The General Accounting Office," continued Mr. Warren, "is one of the few agencies that not only pays its way, but makes a substantial contribution to the Treasury each year. Collections from 1941 to date total \$915 million, most of which had been illegally or otherwise improperly paid out. This amount is twice the cost of running the Office during the same period, and it is a fair statement to say that little, if any, of the amount collected would have ever been recovered except for the work of the General Accounting Office."

After 30 years in the Nation's Capital, Mr. Warren will go back to his old home in Washington, N.C. He became the "watchdog of the Treasury" after a 16-year career in the House of Representatives. He accepted the position

when it was offered to him for the fourth time by President Roosevelt.

### Former Comptroller Comments on S. S. United States Settlement

June 1954

Recently Lindsay C. Warren, former Comptroller General of the United States, was contacted in reference to the settlement with the United States Lines with respect to the superliner S. S. United States.

In his statement, Mr. Warren stressed: "This settlement should stand forever as a stern warning to administrative officials of the Government who choose to substitute their own views for the mandates of Congress. No man in this country is above the law."

Mr. Warren stated the following in connection with the settlement:

"During the week immediately preceding my retirement as Comptroller General, representatives of the Department of Justice consulted with me on a proposed settlement with the United States Lines with respect to the superliner S. S. United States. I approved the proposed settlement in a letter to the Attorney General dated April 30, 1954—my last day in office—as being in the best interest of the United States. I have just been advised that the settlement has been agreed to by all parties.

"Two years ago I rendered a decision to the then Secretary of Commerce, Charles Sawyer, pointing out numerous misinterpretations and misapplications of the law underlying the contract which had been executed between the former Maritime Commis-

sion and the United States Lines. I advised Mr. Sawyer that the contract was illegal and that the S. S. United States should not be turned over to the company until a new agreement fixing a proper price was worked out. Mr. Sawyer chose to act in direct contradiction to that decision.

"This settlement should stand forever as a stern warning to administrative officials of the Government who choose to substitute their own views for the mandates of the Congress. No man in this country is above the law. I refer particularly to Mr. Sawyer and to the members of the former Maritime Commission—with the outstanding exception of Mr. Raymond McKeough, who not only voted against the subsidy in this case but continued thereafter to voice his vigorous dissent.

"I wish to pay tribute to the courage and integrity displayed during the

course of this controversy by former President Truman and his naval aide, Admiral Dennison, the congressional committee headed by Porter Hardy, Jr., former Attorney General McGranery, Attorney General Brownell, and Maritime Administrator Rothschild. Particularly do I wish to express my admiration for Assistant Attorney General Warren Burger. He is a lawyer of the highest ability and character. His thorough grasp of the issues has greatly facilitated the settlement of this case.

"I feel sure that this settlement will dispel any doubts there may have been with respect to the powers of the General Accounting Office to review the administrative actions of the executive branch. This is especially gratifying to me, coming as it does at the time of my retirement as Comptroller General.



#### Importance of Internal Auditing

Elmer B. Staats, Comptroller General, speaking on "The New Thrust of Internal Auditing in Government," before the International Conference of the Institute of Internal Auditors, Washington, D.C., July 3, 1973.

The internal audit function is a most important one from the stand-point of the operations of the General Accounting Office. GAO has vigorously promoted and supported strong internal audit systems in all Government agencies for many years.

The reason for our concern is two-fold:

- Internal auditing is an integral part of a good management system. In recognition of this important concept, GAO has consistently promoted stronger internal audit systems as part of its management improvement efforts throughout the Federal Government.
- 2. The existence of strong management control systems within government agencies which include internal auditing contributes to a more efficient overall audit system. Where such systems exist in the Federal Government,

GAO, as an independent audit arm of the Congress, can concentrate more of its limited resources on analyzing serious management and operating problems and identifying opportunities for improvement.

The staggering size of government operations today suggests how important it is that good management systems at all levels of government incorporate effective internal auditing. Federal expenditures for 1974, as proposed in the budget submitted by the President, add up to close to \$270 billion—a figure of disarming simplicity in appearance but with far-reaching financial ramifications that affect almost all segments of our social and economic system and the systems of many foreign nations.

State and local government expenditures are also growing in size. When added to those of the Federal Government, the total represents over one-third of the gross national product.

A key point of concern to legislators who authorize the use of public funds, and to managers and policymakers who are responsible for their use, is that those funds be used effectively for the purposes intended and without waste. This same point must also con-

cern all of us as auditors. We must be constantly vigilant to see not only that management control systems are designed to promote prudent and effective use of public resources but that they work as intended.

\* \* \* \* \*

In conclusion, I would like to suggest a note of caution to the auditing community itself. Expanding the scope of the auditor's work cannot and should not be done on a crash basis. It should be done gradually; experience should be accumulated as a basis for acceptance and further expansion.

The time-tested ingredients of successful audit operations must not be forgotten—there must be good planning, competent staff, careful supervision, and a constructive approach to the work.

Accountability for efficient and effective use of resources—be they private or public—must be ingrained in all of the systems that make up our society. The services of the auditor represent one important way of providing such accountability.

### Accountability of Business Corporations

Gregory J. Ahart, Director, Manpower and Welfare Division, speaking on "Corporate Citizenship," before the annual International Conference of the National Association of Accountants, Dallas, Texas, June 26, 1973.

In considering the quality of these relationships, we have to consider them in the light of the several constraints which restrict the freedom of a particular concern to charge out and solve all the current problems of society even if its management were inclined to do so. Business corporations are accountable for their performance to several constituencies as well as to the society at large.

First, and as a practical matter perhaps foremost, the corporate enterprise is responsible to its ownership to produce a fair return on the capital it has invested. In a small, or even in a large closely held corporation, the ownership may be substantially identical with the corporate management. In this situation, the management may have the freedom to devote a large portion of net income to purposes not closely related to the main business of the enterprise, depending upon the firm's need for additional capital and the private financial circumstances of the owners.

In a publicly held corporation, with hundreds or thousands or even millions of shareholders, corporate management does not have this degree of freedom. It has an important responsibility to produce a reasonable profit, either in the short run or in the longer term, in response to the trust the ownership—the stockholders—have placed in it. To ignore this trust—this fiduciary responsibility—in our kind of society would be a failing of the first order.

As I heard the president of a large industrial concern say at a conference a couple of years ago: "If you're running a corporation, you had better turn a profit; it isn't any damn social experiment!"

Second, the corporate enterprise is responsible to the community of employees upon which it depends for its vitality and whose efforts in large part enable it to make its contribution to society. It must offer them a fair wage. provide them with good working conditions, contribute to their financial security, and so on. It is true that many of the responsibilities of the enterprise to its employees have been imposed by legislation, as a result of the demands of society in the not so recent past as well as the relatively recent past, and in some cases may be met by corporate management without any particular altruism. Be that as it may, the legitimate demands of the corporate workforce cannot be ignored and do constrain the flexibility of the management to devote substantial resources to non-business-related purposes. If it did so, it might have a rather difficult time at the next round of labor negotiations.

Third, there is the customer—both immediate and ultimate—for the products or services which are the main stock in trade of the enterprise. They deserve a fair shake, too. They want and need quality, with an appropriate degree of safety, and don't want to be gouged in the process. Short of being

in a monopoly position, with respect to an essential product or service, the customer demands also act as a constraint on the freedom of the enterprise to engage in extracurricular activities.

Next, there is the competition, again assuming a competitive industry. There is certainly a limit to how far one member of a particular industry might go in devoting resources to matters not directly related to its main business if its competitors do not go the same route. In most cases we would agree that going out of business would not constitute a great contribution to society.

Fifth, and this is the last I will specifically mention, there is the particular community or communities in which the business enterprise operates. For very good reasons, the immediate community is probably at the top of the list for any philanthropic or civic activity the concern is inclined to and able to support. So long as there are unmet needs in that community, which probably will be for a considerable while in most instances, the enterprise might well be constrained to avoid devoting significant resources to social problems which transcend community interest.

The amendment to the Defense Proction Act of 1950 passed in August 70 which provided for the establishment of the Cost Accounting Standards and designated the Comptoller Genal as Chairman and authorized him to point the other fourtine berg. The law further specified at an additional members are to be from a eaccounting profession; one is to be representative of industry; and one to be from a Federal department or ency.

Accounting Standards Board (Public Law 91-379) was passed by the Congress following an 18-month study by the General Accounting Office undertaken by previous direction of the Congress. In this standards we could be all that the transfer of the congress. In this standards we could be all that the transfer of the congress of the congr

Board was then incorporated in the amendments to the Defense Production Act approved August 15, 1970. Funds for the establishment of the Board were approved recently by the Congress. On March 5, 1971, Mr. Staats, Chairman of the Board, announced the Board had selected Arthur Schohaut as Executive Secretary.

Mr. Schoenhaut has served the Feet Government since 1950. Until 19 he was a til the General Account of the Civil Division from 1964 to 19 Since 1967 he has been Deputy Controller of the Atomic Energy Comm

Mr. Schoenhaut received his B.B

#### New Booklets on GAO

Two booklets were published recently to help inform Members of Congress and others interested about GAO functions and activities and how it operates.

- —"The U.S. General Accounting Office—Purposes-Functions-Services"—a descriptive and explanatory brochure about GAO and its role in the Federal Government. This booklet is a revision of an earlier brochure.
- —"The General Accounting Office—Answers to Frequently Asked Questions"—A new booklet which contains a statement by the Comptroller General of the United States on GAO objectives and 71 questions with answers concerning GAO responsibilities, policies, and methods of operations.

Senator Sam J. Ervin, Jr., of North Carolina referred to the second booklet when he placed in the *Congressional Record* for July 12, 1973, the Comptroller General's statement on GAO objectives. Senator Ervin stated:

Mr. President, on June 21, I introduced on behalf of myself and Senators RIBICOFF and METCALF, the Accounting and Auditing Act of 1973. This bill is designed to strengthen and update the authority and functions of the General Accounting Office in order that it may more effectively carry out its statutory responsibilities.

The General Accounting Office is the agency of the Congress and serves as an important source of information on Federal Government operations for all Members of Congress. Recently the Comptroller General published a new booklet on his office, which provides answers to numerous questions that are frequently asked about the objectives, purposes, and responsibilities of the GAO. This excellent booklet, which is available to all Members of Congress, and publicly available to students, libraries, and members of the public for their use and information, also contains a fine summary statement of the objectives of the General Accounting Office prepared by the Comptroller General.

I think all Members of Congress will be interested in the Comptroller General's statement and I ask unanimous consent that it be printed in the RECORD.

#### **Improving Auditing Standards**

GAO has published a new booklet entitled "What GAO Is Doing To Improve Governmental Auditing Standards." It is one of the follow-on projects growing out of the publication in June 1972 of the statement of standards for audit of governmental organizations, programs, activities, and functions.

Its main purpose is to inform the Congress and others interested about continuing GAO efforts to improve governmental auditing standards. Improvements in such standards and related auditing procedures and practices are needed to provide the Congress and other lawmaking bodies with essential information for use in their legislative and oversight functions.

### Reassignment of Functions From OMB to GSA

By Executive order on May 9, 1973, the President transferred to the General Services Administration the functions being performed by the following organizational units within the Office of Management and Budget:

- -Financial Management Branch
- -Procurement and Property Management Branch
- Management Systems Branch of the Organization and Management Systems Division
- —Management Information and Computer Systems Division with respect to policy control over automatic data processing (except for Government-wide ADP standards)

In his statement of May 22, explaining these shifts, the President stated:

GSA now has overall leadership responsibility for developing Government-wide policy in these areas and for seeing that such policy is carried out within the departments and agencies. It has assumed these responsibilities under the broad policy oversight of the Office of Management and Budget, drawing upon OMB's assistance in resolving major policy issues.

The objective of this change is for GSA to "assume a broader management role by becoming the President's principal instrument for developing better systems for providing administrative support to all executive branch activities."

A new Office of Federal Management Policy was established in GSA on June 11, 1973. This office consists of the following components which will carry out the functions transferred plus some previously lodged in GSA:

- —Office of Procurement Management
- -Office of Property Management
- -Office of Financial Management
- —Office of Management Systems and Special Projects
- —Office of Automatic Data Processing Management

Upon invitation, the Administrator of General Services in July 1973 became one of the principals of the Joint Financial Management Improvement Program. The other four principals are the Comptroller General of the United States, the Secretary of the Treasury, the Director of the Office of Management and Budget, and the Chairman of the Civil Service Commission.

### Southeastern Government Auditors Form Communications Forum

On May 31, 1973, Southeastern government auditors joined together at Louisville, Kentucky, to create a forum, the first such in the Nation, for communications among themselves at

all levels of government: Federal, State, and local.

Called the Southeastern Intergovernmental Audit Forum, the group is made up of State auditors from Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee and Federal auditors from 16 executive department agencies and the General Accounting Office.

Marvin Colbs, GAO regional manager at Atlanta, Georgia, was elected chairman of the forum. Mr. Colbs stated that the organization's aims are to: promote day-to-day cooperation between members on matters relating to audit, advance efficiency and usefulness of audits at all levels of governthe discussion ment. ease and resolution of interagency conflicts on audits, and develop strategies to fill voids and minimize duplications in audit coverage. He said that the head of each organization that conducts audits of governmental organizations, programs, activities, and functions, regardless of level or branch government, is eligible for membership in the forum. Also, the forum in no way subjects any member or agency to the authority of any other agency.

William R. MacDougall, executive director of the President's Advisory Commission on Intergovernmental Relations, Washington, D.C., spoke to the group at its charter-signing ceremonies here.

Mr. MacDougall said the forum moves in a direction consistent with the aims of ACIR, monitoring the operation of the Federal system and recommending improvements. A permanent national bipartisan body created by law, ACIR has members representing the executive and legislative branches of Federal, State, and local governments and the public.

#### Earthquake Research

On August 3, 1973, Representative Alphonzo Bell of California introduced a bill in the House to expand the Federal Government's earthquake research program.

In his remarks, Mr. Bell referred to the GAO report on Federal earthquake research as follows:

Perhaps the greatest virtue of this bill lies in its provisions for coordinating the ongoing Federal earthquake research effort. The General Accounting Office, in an evaluation of Federal earthquake research programs last fall, concluded that—

"Fragmented responsibility and lack of national goals have made a coordinated research attack on the Nation's earthquake problems difficult."

The GAO found that the several federal agencies involved in earthquake research were engaged in overlapping and duplicative programs. The result has been an inefficient and wasteful use of the limited resources we have assigned to the earthquake problem. This legislation will correct this crippling deficiency. It assigns to the National Science Foundation the responsibility to coordinate the Federal Government's overall earthquake research program, without depriving the other Federal agencies their proper role in the effort.

The GAO report was "Need for a National Earthquake Research Program," B-176621, September 11, 1972.

# Effectiveness of D.C. Outpatient Health Centers

The GAO report of July 31, 1973, B-118638, on this subject provides a good example of how the independent auditor can help throw light on the need for improving local government programs in a field in which nongovernment agencies and funds are also involved.

In 21 outpatient health care centers in the District of Columbia, which cost about \$11 million to operate in 1972, GAO found a serious lack of coordination over the operations which resulted in:

- —imbalances in the location of centers.
- —capability to provide more health services in some areas than residents sought, and
- -lack of capability in other areas to provide sufficient health care.

Underuse of available outpatient health services was prevalent, a disturbing result of inadequate planning for the location and capabilities of individual centers.

The report includes several charts to aid the reader in understanding the problems observed. One very effective chart shows the maze of health centers and the hierarchy of bureaus or other organizations involved in their operations and funding. In addition to the programs of the District of Columbia itself and three private nonprofit organizations, seven Federal programs administered by the Department of Health, Education, and Welfare and the Office of Economic Opportunity are involved.

Walter E. Washington, Mayor-Commissioner of the District of Columbia, informed *Frank Medico*, assistant director in charge of the GAO study, that:

The report is a major contribution toward an understanding of the complex issues which need to be resolved before a fully coordinated comprehensive ambulatory care delivery system can become a reality in the District.

# GAO Evaluation of War on Poverty

One of the chapters in the recently published book "Public Science Policy and Administration" (edited by Albert H. Rosenthal and published by the University of New Mexico) deals with fiscal and management dilemmas in science administration. This chapter was written by Comptroller General Elmer B. Staats and William D. Carey, vice president of Arthur D. Little, Inc.

Among the subjects discussed is evaluation of research activities. The authors lead off with this statement:

One of the real predicaments facing the government, as it launches large-scale social experimentation in the field of human resources, is the infirmity of its resources for critical evaluation of the effectiveness of its strategies relative to costs and expectations.

They then reviewed GAO's experience in the congressionally mandated evaluation of the programs and activities of the Office of Economic Opportunity in 1967–68—the war on poverty. Of interest to GAO staff members are these observations:

In essence, GAO was expected to determine whether the war on poverty was getting anywhere, and whether it justified its cost to the public—a fair enough pair of questions to be addressed to most public expenditure programs but exceedingly difficult to address to an enterprise that is by nature experimental, research intensive, and long term in payoff. Adding to the hazards of evaluation was the existence of wide-spread attitudinal biases growing out of the war on poverty's implicit role in challenging customs, institutions, and embedded social practices. GAO indeed had a bear by the tail.

In quantitative terms, GAO could see, as well as anyone who cared to look, that the numbers of people included within the government's definition of the "poor" had declined almost unbelievably since the initiation of the war on poverty. By that single standard, the ranks of the poor had thinned by several millions. What the cold statistics could not prove was a cause-and-effect connection between the programs of the Office of Economic Opportunity (OEO) and the decline of poor families as a percentage of population. For that matter, the statistics revealed nothing of a qualitative nature concerning the real economic and social conditions in which the new nonpoor found themselves. Perhaps nothing more could be said than that the war on poverty had not obstructed the aisles leading to exit from deprivation.

#### **GAO Overseas**

The New Delhi Office of the European Branch was closed June 30. In the future, the European Branch in

Frankfurt will be responsible for all GAO work assignments in Pakistan, Afghanistan, and westward into the Middle East. The Far East Branch in Honolulu will be responsible for all GAO work assignments in India, Nepal, Bangladesh, and Sri Lanka (Ceylon).

Johan De Leeuw, assistant director, Logistics and Communications Division, was detailed for an indefinite period, commencing August 1, to the NATO International Staff, Brussels, Belgium, as an audit assistant to the NATO International Board of Auditors

George L. De Marco, assistant director, International Division, was designated assistant director of the European Branch, International Division, in August 1973.

James Y. Kurihara, assistant director, International Division, was designated assistant director of the Far East Branch, International Division, in August 1973.

Raymond R. Stock, management auditor, Los Angeles regional office, began a 3-year transfer assignment, on August 1, as an accountant in the Office of the Comptroller, Food and Agriculture Organization of the United Nations, Rome, Italy.



#### By Judith Hatter

Assistant Chief, Legislative Digest Section, Office of the General Counsel

# Accounting and Auditing Act of 1973

The Comptroller General submitted to the Congress a measure to strengthen the role of GAO. The proposed legislation was introduced by Senator Sam Ervin for himself and Senators Ribicoff and Metcalf on June 21, 1973, and subsequently several companion bills were introduced in the House of Representatives.

On two occasions the Comptroller General appeared before congressional committees to discuss the Accounting and Auditing Act of 1973. On June 21 he appeared before the House Select Committee on Committees to outline his views on the need for additional audit authority and on August 11 before the Senate Subcommittee on Budgeting, Management and Expenditures of the Government Operations Committee to discuss title IV of the bill which concerns access to records. (Other participants: Messrs. Dembling, Hunter, Morse, Moore, Sperry, Griffith, and Fitzgerald)

During the months of May through August, representatives of GAO were frequently asked to testify before congressional committees and there follows a brief resumé of these appearances.

# Government Procurement Commission Recommendations

Richard W. Gutmann, director, Procurement and Systems Acquisition Division, testified on May 17 before the Subcommittee on Government Procurement of the Senate Select Committee on Small Business on the implications for the small business community of certain recommendations of the Commission on Government Procurement.

It was suggested that the Office of Federal Procurement Policy proposed to be established could serve as a conduit for communication between the Small Business Administration, the Committee, and the procuring agencies regarding small business contracting trends and required new initiatives. (Other participants: Messrs. Hall, Desmond, and Fitzgerald)

The Comptroller General, who was a statutory member of the Government Procurement Commission. subse-

quently testified on July 30 before the House Government Operations Subcommittee on Legislation and Military Operations on the salient features of H.R. 9059, to establish an Office of Federal Procurement Policy. (Other participants: Messrs. Dembling, Morris, Gutmann, and Griffith)

#### Russian Wheat Sales

On July 23 Joseph R. Ferri, assistant director, International Division, appeared before the Permanent Subcommittee on Investigations of the Senate Government Operations Committee to discuss the GAO report on the examination into the Russian wheat sales and weaknesses in Agriculture's management of the wheat export subsidy program which had previously been discussed by the Comptroller General before the Senate Agriculture and Forestry Committee. (Other participants: Messrs. Milgate, McArter, and Griffith)

# **Budgetary Information for the Congress**

Kenneth W. Hunter, assistant director, Financial and General Management Studies Division, appeared before the House Select Committee on Committees on June 28 to discuss the congressional needs for Federal fiscal, budgetary, and program information as GAO has defined them; the major existing reporting to the Congress; and suggestions regarding policies and actions the Congress and GAO can take to meet these needs. (Other participant: Mr. Sperry)

#### Space Shuttle

Twice representatives appeared before congressional committees to discuss the GAO report to the Congress on analysis of the cost estimates for the space shuttle and two alternative programs. On June 12 Thomas D. Morris, Assistant Comptroller General. appeared before the Subcommittee on and Urban Development. Housing Space, Science, and Veterans of the Appropriations Committee: and on June 26 Donald L. Scantlebury, director, Financial and General Management Studies Division. peared before the Subcommittee on Manned Space Flight of the House Science and Astronautics Committee. (Other participants: Messrs. Marvin, Sperry, and Blair)

# Overseas Private Investment Corporation

Charles D. Hylander, deputy director, International Division, summarized the highlights of the GAO report concerning the management of investment insurance, loan guarantees, and claim payments by the Overseas Private Investment Corporation for the Subcommittee on Multinational Corporations of the Senate Foreign Relations Committee on July 20. (Other participants: Messrs. Zappacosta, Berngartt, and Fitzgerald)

# Criminal Justice Act Applicability to the District of Columbia

Milton J. Socolar, deputy general counsel, appeared before the House

District of Columbia Committee on June 28 to discuss a Comptroller General decision whether funds appropriated to the Federal Judiciary for the implementation of the Criminal Justice Act are available to cover cases in the Superior Court of the District of Columbia and whether the Judicial Conference of the United States and the Administrative Office of the United States Courts have responsibility for administration of, and budgeting for, Criminal Justice Act expenditures by the Superior Court of the District of Columbia and the District Court of Appeals. (Other participant:  $Lev_{\gamma}$ )

#### **Postal Operations**

On July 26 the Comptroller General discussed for the Senate Post Office and Civil Service Committee the operations and activities of the Postal Service, particularly the quality of mail service. (Other participants: Messrs. Neuwirth, Jones, Colan, Chervenak, Blair, and Ols)

## Federal Election Campaign Act of 1973

On June 7 Phillip S. Hughes, director, Office of Federal Elections, testified before the Rules and Administration Committee of the Senate on campaign finance legislation, particularly S. 372, the Federal Election Campaign Act of 1973. (Other participants: Messrs. Thompson, Higgins, and Fitzgerald)

### Light Aircraft Safety

In connection with consideration of the Federal Aviation Administration's regulation of the manufacturers of light aircraft. Henry Eschwege, director, Resources and Economic Development Division, appeared on June 13 before the Subcommittee on Government Activities of the House Government Operations Committee to discuss the results of a GAO review to determine whether FAA was giving suffiemphasis to programs insuring the design safety of such aircraft. (Other participants: Messrs. Kelley, Kegel, Gaffney, Levy, and Sperry)

### Health Services and Mental Health Administration

On June 27 John D. Heller, associate director, Manpower and Welfare Division, appeared before the Subcommittee on Health of the Senate Labor and Public Welfare Committee to discuss the implementation of a newfunding policy for health services delivery projects supported with funds administered by the Health Services and Mental Health Administration of the Department of Health, Education, and Welfare. (Other participants: Messrs. Elmore, Fenstermaker, Garbark, and Sperry)

# Value Engineering in Federal Construction

On June 18 Robert G. Rothwell, deputy director, Logistics and Communications Division, testified before the Subcommittee on Buildings and Grounds of the Senate Public Works Committee on the use of value engineering by Federal agencies engaged in facility acquisition. (Other participants: Messrs. Hill, Cohen, and Griffith)

### National Subsidized Housing Loan Fund

At hearings July 20 before the Subcommittee on Housing and Urban Affairs of the Senate Committee on Banking, Housing, and Urban Affairs, Henry Eschwege, director, Resources and Economic Development Division, discussed the provisions of S. 2169 to establish a National Subsidized Housing Loan Fund to provide for the direct financing of low- and moderate-income housing programs under sections 235 and 236 of the National Housing Act. This direct financing concept was suggested by GAO in two separate reports to the Congress as a means of realizing substantial savings. (Other participants: Messrs. Squellati, Roher, and Blair)

#### Rural Business Loan Programs

On July 19 Henry Eschwege, director, Resources and Economic Development Division, appeared before the Subcommittee on Rural Development of the Senate Committee on Agriculture and Forestry to discuss the GAO report on ways to improve the effectiveness of the rural business loan programs administered by the Farmers Home Administration. (Other participants: Messrs. Hirschhorn, Woods, Storm, and Sperry)

### Navy Homeporting in Greece

Fred J. Shafer, director, Logistics and Communications Division, on July 16 discussed for the Subcommittee on Europe of the House Foreign Affairs Committee the results of a review of the Navy's project to homeport part of the 6th Fleet in Greece. The major conclusion reached was that planning for the project was inadequate. (Other participants: Messrs. Grosshans, Tucker, and Fitzgerald)

### Federal Housing Administration Insurance Funds

On July 10 Baltas E. Birkle, associate director, Resources and Economic Development Division, presented statistics on the insurance operations of the Federal Housing Administration to the Legal and Monetary Affairs Subcommittee of the House Government Operations Committee. Using charts and tabulations, Mr. Birkle discussed insurance fund activities since 1968. (Other participants: Messrs. Sherman and Sperry)

### Naval Petroleum and Oil Shale Reserves

J. Kenneth Fasick, director, Logistics and Communications Division, on May 30 appeared before the Senate Interior and Insular Affairs Committee at hearings on S. 1586, Petroleum Reserves and Import Policy Act of 1973, to discuss the capability of the Naval petroleum and oil shale reserves to meet emergency oil needs. (Other participants: Messrs. Oberson, Schulz, and Griffith)

#### **Drinking Water Safety**

At May 31 hearings before the Subcommittee on Environment of the Senate Commerce Committee on S. 433, Safe Drinking Water Act of 1973, and other related bills, *Henry Eschwege*, director, Resources and Economic Development Division, discussed the results of the GAO review of Federal and State programs for assuring the purity and safety of drinking water. (Other participants: Messrs. *Charam*, *Densmore*, and *Griffith*)

# Narcotic Addiction Treatment and Rehabilitation Programs

On May 23 Dean Crowther, deputy director, Manpower and Welfare Division, appeared before Subcommittee No. 4 of the House Judiciary Committee to discuss use by the criminal justice system. particularly in New York, of narcotic addiction treatment programs as an alternative to imprisonment for arrested addicts. (Other participants: Messrs. Elmore, Grimaudo, Fenstermaker, Griffith, and Ms. Harmon)

### How Times Have Changed

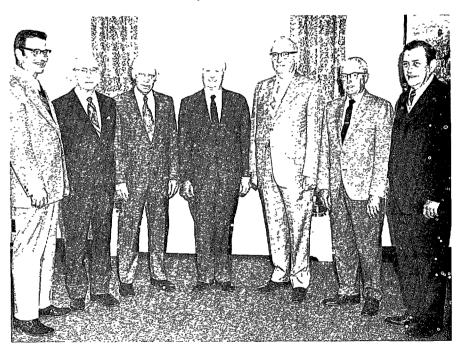
In the Reorganization Act of 1945 it [the Congress] has asserted that the General Accounting Office and the Comptroller General are parts of the legislative branch of government (a most astounding proposition!) \*\*\*.

William Anderson
"The National Government
of the United States," 1946

### **Veteran Professionals Retire**

Among those retiring from GAO at the end of June 1973 were:

John C. Fenton, assistant director, Manpower and Welfare Division. Mr Fenton joined GAO in 1946 as a member of the staff of the former Corporation Audits Division. He also served in the former Division of Audits, the Accounting and Auditing Policy Staff, and the Civil Division. During World War II, he served in the Navy Cost Inspection Service. He is a graduate of Washington University in St. Louis and a CPA (Missouri), and he received the GAO Meritorious Service Award in 1960. One of his notable



Retirees meet for final GAO picture. From the left: Gregory J. Ahart, director, Manpower and Welfare Division. John C. Fenton, assistant director, Manpower and Welfare Division; George H. Staples, acting deputy director, General Government Division: A. T. Samuelson, Assistant Comptroller General; Lloyd A. Nelson, associate director, Manpower and Welfare Division: L. Kermit Gerhardt, associate director, General Government Division; and Victor L. Lowe, director, General Government Division.

contributions as a member of the GAO staff was his article on "The Corporation Audits Division—Its Legacy to the Seventies," published in the 50th anniversary edition of *The GAO Review* (Summer 1971).

George H. Staples, acting deputy director of the General Government Division from its formation in April 1972. Mr. Staples came to GAO in 1951 and served in the former Corporation Audits Division, the Division of Audits, the Civil Accounting and Auditing Division, the International Operations Division, and the Civil Division. Prior to his Government service, he was in public accounting practice with the firm of Arthur Andersen & Co. He is a CPA (New York) and a member of the American Institute of CPAs and the American Accounting Association. He received the GAO Meritorious Service Award in 1956, 1957, and 1960.

Lloyd A. Nelson, associate director, Manpower and Welfare Division. See page 98.

L. Kermit Gerhardt, associate director, General Government Division. Mr. Gerhardt came with GAO as a member of the staff of the former Corporation Audits Division in 1948 and later served also in the former Division of Audits and the Civil Division. Previously he was associated with a public accounting firm in Boston and during World War II he served with the Cost Inspection Service of the Department of the Navy. He is a CPA (Massachusetts) and a member of the National Association of Accountants, the Federal Government Accountants Association, and the Massachusetts Society of Certified Public Accountants. He received the GAO Meritorious Service Award in 1958 and 1959 and the GAO Distinguished Service Award in 1969.



F. Henry Barclay, Jr.

F. Henry Barclay, Jr., associate general counsel, has been designated to succeed Edwin W. Cimokowski who retired from Government service on June 30, 1973. In his new capacity he will be responsible for the overall planning and direction of the work of the Office of the General Counsel pertaining to the transportation of supplies, equipment, and personnel by the Federal Government.

Mr. Barclay has been with the General Accounting Office since 1943 and has been on the legal staff of the Office of the General Counsel since 1945. As associate general counsel, he was previously responsible for the personnel and general government matters.

Mr. Barclay is a graduate of the University of Virginia and received his LL.B. degree from the University of Maryland. He was admitted to the Maryland State Bar in 1939 and is a member of the American Bar Association and the Federal Bar Association.



Forrest R. Browne

Forrest R. Browne was designated director of the Federal Personnel and Compensation Division, effective March 26, 1973. Mr. Browne had been the acting director of this new division which was established in March 1972 as a part of the 1972 reorganization of the General Accounting Office.

Mr. Browne joined GAO in 1953 in the Kansas City regional office. He was appointed regional manager of that office in 1954 and in 1966 was appointed deputy director of the Field Operations Division. On May 2, 1971, he was designated associate director of the Manpower Group in the Defense Division.

Mr. Browne received a Bachelor of Science degree from New York University in 1944. He is a CPA (Oklahoma and New Mexico) and a member of the American Institute of CPAs and the Federal Government Accountants Association. In 1962 he completed the Executive Development Program at Stanford University Graduate School of Business.



James M. Campbell

James M. Campbell was appointed associate general counsel, effective July 22, 1973. He succeeds F. Henry Barclay, Jr., as the official responsible for the overall planning, administration, and direction of the work of the Office of the General Counsel pertaining to civilian and military personnel of the Federal Government.

Since joining the General Accounting Office in 1941, Mr. Campbell has had extensive experience in the Office of the General Counsel where he served in positions of attorney-advisor and legislative attorney, performing both journey-man work and review work in those positions.

Effective March 2, 1970, Mr. Campbell was designated director of the Claims Division, and, when that division was consolidated with the Transportation Division as a part of the 1972 reorganization of GAO, Mr. Campbell was designated deputy director of the Transportation and Claims Division.

Mr. Campbell is a graduate of The George Washington University, receiving a B.A. degree in 1937 and an LL.B. degree in 1939. He is a member of the District of Columbia Bar and is admitted to practice before the District Court of the United States for the District of Columbia, the United States Court of Appeals for the District of Columbia, and the Supreme Court of the United States.



Edwin W. Cimokowski

Edwin W. Cimokowski, associate general counsel responsible for legal matters pertaining to transportation in the Office of the General Counsel, retired at the end of June 1973 after more than 38 years of Government service.

Mr. Cimokowski began his Federal service in the Post Office Department, Washington, D.C., in 1935. In July 1942 he entered the Army Air Corps and was discharged in October 1945. His service in GAO's Office of the General Counsel began in January 1946.



Robert H. Drakert

Robert H. Drakert was appointed by the Council of the North Atlantic Treaty Organization to a second 3-year term, beginning August 1, 1973, as the U.S. member of the five-member NATO International Board of Auditors. He joined the Board in 1970 and was its chairman for the past 2 years. The Board is chosen by the NATO Council from among the 15 member countries and is responsible for auditing the financial operations of all NATO activities.

Mr. Drakert joined the New York regional office in 1951 after a varied career in private industry, including public accounting and book publishing. He was appointed regional manager of the New York office in 1954. From 1959 to 1961 he was assistant director of the European Branch, returning from that post to New York to resume the duties of regional manager.

Mr. Drakert served in the U.S. Army from 1942 to 1945. He is a certified public accountant in New York and a member of the American Institute of CPAs and the Federal Government Accountants Association.



#### J. Kenneth Fasick

- J. Kenneth Fasick was designated director of the International Division, effective July 1, 1973.
- Mr. Fasick joined the General Accounting Office in January 1954 after serving 5 years in public accounting practice. From 1955 through 1957 Mr. Fasick served in the European Branch. From 1958 to April 1972 he served in various positions with the Defense Division. He was designated director of the newly established Logistics and Communications Division on April 3, 1972.
- Mr. Fasick is a certified public accountant in the District of Columbia. He received the GAO Meritorious Service Award in 1960 and the GAO Distinguished Service Award in 1968.
- Mr. Fasick graduated from the University of Maryland with a B.S. degree in business administration and completed the Advanced Management Program of the Graduate School of Business Administration, Harvard University, in 1961. From 1942 to 1945 he served in the U.S. Army.



Carl P. Friend

Carl P. Friend, assistant general counsel for civilian personnel, retired in June 30, 1973, after more than 41 years of service with the U.S. Government.

Mr. Friend attended The George Washington University and received an LL.B. degree from the Washington College of Law (now merged with the law school of The American University) in 1937. He has been a member of the District of Columbia Bar since 1937. He also took postgraduate work in accounting at The American University.

Mr. Friend entered the General Accounting Office as a clerk in 1934 and worked as a claims examiner in the Claims Division from 1936 to 1946 when he transferred to the Office of the General Counsel. He received the Meritorious Service Award in 1954, 1961, 1963, and 1966. He served 2 years of active duty in the U.S. Navy during World War II and is a retired lieutenant commander in the U.S. Naval Reserve.



Thomas J. Gallagher

Thomas J. Gallagher was designated assistant general counsel effective July 1, 1973. In his new position Mr. Gallagher will be responsible for matters relating to pay and allowances, retirement pay, travel, transportation, and other rights and benefits of members of the Armed Services.

Mr. Gallagher has been with the General Accounting Office since 1936 and in the Office of the General Counsel since 1948. He was appointed senior attorney in the Office of the General Counsel on November 1, 1970. In his previous position Mr. Gallagher was deputy assistant general counsel in the military personnel section.

Mr. Gallagher received his LL.B. degree from Columbus University Law School in 1941. He is a member of the District of Columbia Bar and the Federal Bar Association.

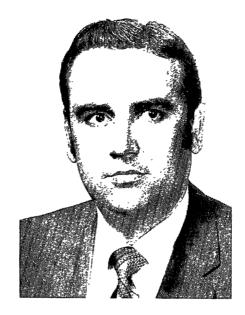


John P. Gibbons

John P. Gibbons was designated deputy director of the Transportation and Claims Division, effective July 22, 1973. As deputy director for the Transportation and Claims Division, Mr. Gibbons is primarily responsible for all claims adjudication work (except that relating to transportation claims), debt collection, and agency review and assistance work.

Since joining the General Accounting Office in 1965, Mr. Gibbons has served as an attorney-advisor in the Office of the General Counsel; deputy director of the former Claims Division, now the Transportation and Claims Division; and most recently as assistant director for payment and debt claims, Transportation and Claims Division.

Mr. Gibbons attended St. Mary's College and De Paul University and was graduated from De Paul University Law School with an LL.B. degree in 1940. He is a member of the Illinois and Virginia Bars. He served in the U.S. Navy from 1942 to 1965.



Werner Grosshans

Werner Grosshans has been designated as associate director in the Logistics and Communications Division, effective July 22, 1973. In this position he will be responsible for GAO reviews of Federal material management and readiness of military forces.

Mr. Grosshans received a Bachelor of Arts degree in accounting from San Jose State College in 1958 and a Master of Science degree in business administration from The George Washington University in 1969.

Mr. Grosshans joined the General Accounting Office immediately upon graduation from college and was assigned to the staff of the San Francisco regional office. In July 1967 he was appointed an assistant regional manager, and in 1969 he attended the Industrial College of the Armed Forces. In July 1970 he transferred to the Post Office Department as assistant regional chief inspector-audit. In this position he was responsible for internal audits in the 13 States of the Postal Service Western Region. In October 1972 he returned to GAO as the assistant director-in-charge, Materiel Management Group, Logistics and Communications Division.

Mr. Grosshans is a certified public accountant (California) and a member of the California Institute of CPAs and the Federal Government Accountants Association. He received the GAO Meritorious Service Award in 1962 for outstanding performance.



James T. Hall

James T. Hall was designated regional manager of the Los Angeles regional office, effective August 5, 1973.

Mr. Hall has a Bachelor of Science degree in accounting from the University of Southern California and he also attended the University of Idaho. In 1962 he completed the Executive Development Program at Stanford University. He is a CPA (California) and a member of the American Institute of CPAs, the California Society of CPAs, and the Federal Government Accountants Association.

He first joined the General Accounting Office in 1952 and served in positions of increasing responsibility in the San Francisco regional office and the Civil Division until April 1968 when he was appointed director of survey and review at the Department of the Interior. Mr. Hall returned to GAO in September 1972 and joined the staff of the Federal Personnel and Compensation Division as an associate director.



Louis W. Hunter

Louis W. Hunter was designated director of the European Branch, International Division, effective July 1, 1973.

Mr. Hunter received a B.C.S. degree from the Golden Gate College of Business in 1946 and later attended the University of San Francisco Law School. In 1964 he completed the Advanced Management Program at the Harvard University Graduate School of Business Administration.

He joined the GAO staff in 1952 after several years of public accounting practice and served in the San Francisco regional office and the European Branch as well as in the Civil Division in Washington. He was designated an assistant director in the Civil Division in 1960 and in the International Division in 1964 and an associate director in 1967. He became manager of the New Delhi office, European Branch, in July 1970 and was assigned to the European Branch Office in Frankfurt as an assistant director in August 1972.

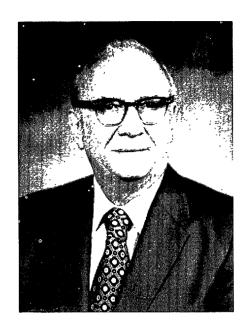
Mr. Hunter is a CPA (California) and a member of the American Institute of Certified Public Accountants, the National Association of Accountants, the American Accounting Association, the Federal Government Accountants Association, and the California Society of Certified Public Accountants.



James E. Masterson

James E. Masterson was designated assistant general counsel for civilian personnel in the Office of the General Counsel, effective July 1, 1973. Mr. Masterson attended Berea College and received a B.S. degree in 1952. He received an LL.B. degree from The George Washington University in 1956 and an M.A. degree in government from The American University in 1963.

Mr. Masterson joined the General Accounting Office in 1956. His previous service has been as an attorney-advisor, senior attorney, and deputy assistant general counsel. He attended the Judge Advocate General's Procurement Law Course in 1960 and the Executive Forum in 1972, and he is a member of the District of Columbia Bar and the Federal Bar Association.



Lloyd A. Nelson

Lloyd A. Nelson, associate director, Manpower and Welfare Division, retired from Federal service at the end of June 1973.

Mr. Nelson served in the General Accounting Office from June 1948 through June 1973, a period of 25 years. He also served as a professional accountant in other Federal agencies for almost 15 years before joining GAO. Among these agencies were the Departments of Agriculture and Navy, the War Assets Administration, and the Foreign Economic Administration.

His service in GAO involved almost 8 years in the former Accounting Systems Division—from 1948 to 1956. When the former Civil Accounting and Auditing Division was formed in 1956, he became an associate director in that division. His professional assignments in GAO related to areas, such as (1) accounting systems review and evaluation of Federal civil agencies, (2) audits of HEW, Labor, VA, CSC, RRB, Justice, and the D.C. Government, (3) directly assisting the House Appropriations Committee in 1953 and 1954, and (4) work for about a year with a select committee of the House on survivor benefits which culminated in the enactment of Public Law 84—881 which made major revisions in Federal survivor benefits programs.

Mr. Nelson is a CPA (Maryland) and a member of several professional accounting associations. He has been active in the National Association of Accountants and the Federal Government Accountants Association, serving on the boards of directors of the Washington chapters, as editor of the chapter publication, and as chairman of the Financial Management Roundtable.

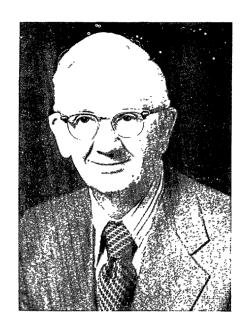


Joseph P. Normile

Joseph P. Normile was designated deputy director of the Office of Personnel Management, effective in July 1973.

Mr. Normile served as director of the European Branch, International Division, from September 1968 to June 1973. Previously he was deputy director of the former Transportation Division, to which he was transferred in 1962. He joined GAO in 1953 and had experience in civil and defense audits from that date to 1962.

Mr. Normile served in the U.S. Army Air Corps from 1942 through 1945. He received a B.S. degree in industrial and labor relations from Cornell University in 1948 and an M.S. degree in economics from Catholic University in 1951. Prior to his GAO experience, Mr. Normile was associated with a public accounting firm in Washington. He is a CPA (District of Columbia) and a member of the American Institute of CPAs and the National Association of Accountants.



Louis Palmer

Louis Palmer, assistant general counsel, retired from the General Accounting Office at the end of June 1973 after nearly 38 years of Federal Government service.

Mr. Palmer attended the Branch Agriculture College in Cedar City and later the University of Utah in Salt Lake City, where he received Bachelor of Science and Juris Doctor degrees. He also attended The George Washington University. He is a member of the Utah State Bar and the District of Columbia Bar.

He was employed by the Utah State Road Commission for 2 years. He commenced his career in Federal service with the Resettlement Administration, Washington, D.C., in January 1936.

In September 1936 he joined the General Accounting Office and served in the Claims Division in positions of increasing responsibility until 1945, when he transferred to the Office of the General Counsel as an attorney. His work in the General Counsel's Office has been mainly in services. In 1967 he became deputy assistant general counsel in the military personnel section, later serving as the assistant general counsel in that section until his retirement. He received the GAO Meritorious Service Award in 1961, 1963, and 1966.



Fred J. Shafer

Fred J. Shafer was designated director of the Logistics and Communications Division, effective July 1, 1973.

Mr. Shafer entered Government service in 1941 and served in the U.S. Army during World War II. He has received degrees in accounting from Southeastern University and in economics from The American University. He has completed the executive programs of the Brookings Institution and the University of Michigan Graduate School of Business Administration.

After joining the General Accounting Office in 1946, Mr. Shafer held positions of increasing responsibility in the former Transportation Division. He became deputy director of that division in September 1969 and on April 3, 1972, became deputy director of the Logistics and Communications Division which was formed during the 1972 reorganization of GAO.



Jerome H. Stolarow

Jerome H. Stolarow was designated deputy director of the major acquisitions subdivision in the Procurement and Systems Acquisition Division, effective July 8, 1973. He had been manager of the Los Angeles regional office since September 15, 1971. Previously he served in the Defense Division.

Prior to joining the General Accounting Office in 1958, he was associated with public accounting firms and private industry. Mr. Stolarow served in the Army from 1951 to 1953. He received a Bachelor of Business Administration degree from the University of Oklahoma in 1951 and a Juris Doctor degree from The Georgetown University Law School in 1955.

In 1964 Mr. Stolarow attended the Program for Management Development at Harvard Business School. From 1969 to 1970 he attended the Industrial College of the Armed Forces. He is a certified public accountant in Oklahoma and the District of Columbia. He has also been admitted to the District of Columbia Bar. He is a member of the American Institute of CPAs.

Mr. Stolarow received the GAO Special Educational Award in 1970.



Oye V. Stovall

Oye V. Stovall, director of the International Division, retired from the General Accounting Office on June 30, 1973, after 29 years of Federal service.

Mr. Stovall joined GAO in 1946 as a member of the staff of the then newly formed Corporation Audits Division. In December 1952 he was made an assistant director of audits. In December 1959 he was designated director of the Transportation Division and served in that capacity until May 1962 when he was named deputy director of the Civil Accounting and Auditing Division. He became director of the International Operations Division when it was established in August 1963 and served in that capacity until his retirement.

He attended Sunflower Junior College in Mississippi and Mississippi State College. He is a CPA (Louisiana and Mississippi) and practiced public accounting in Louisiana and Mississippi prior to World War II and in Texas after the war. He served in the Navy during World War II from 1942 to 1946 as a lieutenant commander in the Cost Inspection Service. He was comptroller of the Mallinckrodt Chemical Works, Uranium Division, St. Louis, Missouri, from April 1955 to October 1956.

Mr. Stovall is a member of the American Institute of CPAs, the District of Columbia Institute of CPAs, the Federal Government Accountants Association, and the National Association of Accountants. He attended the Advanced Management Program, Harvard University, in 1962. He received the GAO Distinguished Service Award in 1972.



Gilbert F. Stromvall

Gilbert F. Stromvall was designated regional manager of the Chicago regional office, effective August 20, 1973.

Mr. Stromvall served in the U.S. Army from 1946 to 1949. He graduated with high honors from the University of Idaho in 1954 where he majored in accounting. He studied international economics at the State Department's Foreign Service Institute in 1968.

Since joining the General Accounting Office in 1954, he has had a wide variety of assignments and responsibilities in the Los Angeles regional office and in the International Division.

Mr. Stromvall received the Meritorious Service Award in 1967 and the Career Development Award in 1970. He is a member of the Federal Government Accountants Association, the American Economic Association, and the Royal Economic Society.



Myer R. Wolfson

Myer R. Wolfson, manager of the Chicago regional office, retired at the end of June 1973 after service of over 39 years in the Federal Government, including more than 38 years with the General Accounting Office.

Mr. Wolfson graduated from the University of South Carolina in 1934.

Mr. Wolfson was employed by the Federal Land Bank in January 1934 and joined the General Accounting Office in June 1935 as a check assorter. He progressed through the ranks and was appointed regional manager of the Chicago office in August 1959. During his GAO career he worked in Washington, D.C.; Columbia, South Carolina; College Station, Texas; Jackson, Mississippi; Honolulu, Hawaii; Milwaukee, Wisconsin; and Chicago, Illinois.

He is a past president of the Chicago chapter of the Federal Government Accountants Association. He received the GAO Distinguished Service Award in 1969.

### **Other Staff Changes**

#### **New Assistant Directors**

#### Federal Personnel and Compensation Division

John S. Emery Anthony J. Gabriel Harold E. Lewis James E. Mahoney Charles A. Schuler

#### Financial and General Management Studies Division

Wallace M. Cohen Brian L. Usilaner

#### **General Government Division**

Sebastian Correira, Jr. Arthur R. Goldbeck Arnold P. Jones

#### International Division

Joseph R. Ferri Earl G. Woods

#### Procurement and Systems Acquisition Division

Joseph C. Bohan Raymond J. Poskaitis John A. Rinko Sidney Wolin

#### Resources and Economic Development Division

Clarence P. Squellati

## New Deputy Assistant General Counsels

#### Office of General Counsel

Charles P. Hovis Edwin J. Monsma Milton E. Wertz

#### **New Senior Attorneys**

#### Office of General Counsel

Martin J. Harty Vincent A. LaBella Geraldine M. Rubar Albert G. Wellens

#### New Legislative Advisor

#### Office of Legislative Liaison

Samuel W. Bowlin

#### **New Assistant Regional Managers**

#### Chicago

William J. Schad

#### Denver

Albert L. Braddock

#### Philadelphia

Francis X. Fee

#### San Francisco

William W. Parsons

#### Seattle

Joseph W. Kegel

#### Retirements

#### Office of General Counsel

Herbert F. Lock, deputy assistant general counsel Wilbur R. Allen, deputy assistant general counsel

#### Manpower and Welfare Division

John C. Fenton, assistant director

## Procurement and Systems Acquisition Division

Selim S. Podnos, assistant director

#### Resources and

**Economic Development Division** 

Arland N. Berry, assistant director

#### Field Operations Division

Kenneth W. Hitzeman, assistant regional manager, Chicago

# PROFESSIONAL ACTIVITIES

#### Office of the Comptroller General

The Comptroller General, *Elmer B. Staats*, addressed the following groups:

The Conference Board Conference on Productivity, New York City, on "Measuring and Enhancing Federal Productivity—A Progress Report," May 23.

1972 National Capital Conference of the Washington, D.C., Metropolitan Area chapters of International Personnel Management Association, Washington, D.C., on the occasion of his acceptance of the 1972 Warner W. Stockberger Award, May 25.

Annual Conference of Municipal Finance Officers Association, Kansas City, Missouri, on "The GAO—How Its Work Affects Local Government," June 4.

National Institute of Public Affairs Conference, "Federal Action and the People of Our Cities," Newark, New Jersey, on the purposes of the conference and the relationship of GAO's work, June 10.

Combined meeting of Community Leadership Seminar Associates and Community Leadership Seminar, Philadelphia, on "Revenue Sharing and Federal Accountability for Grants to Local and State Governments," June 12. Federal Government Accountants Association 22d Annual Symposium, Washington, D.C., on "Budgetary, Fiscal, and Program Information Needs of the Congress," June 15.

Brookings Institution's Conference for Business Executives on Federal Government Operations, Washington, D.C., on "The Role of the General Accounting Office," June 18.

Machinery and Allied Products Institute's Seminar on New Trends in Accounting and Financial Reporting, Washington, D.C., on "The Cost Accounting Standards Board," June 20.

Brookings Institution's Conference for Faculty Fellows (Business and Administration) on Federal Government Operations, Washington, D.C., on "The General Accounting Office and Government Operations," June 26.

Institute of Internal Auditors' 32d International Conference, "Better Service to Management," Washington, D.C., on "The New Thrust of Internal Auditing in Government," July 3.

American Bar Association Annual Convention, Washington, D.C., on "The New GAO," August 7.

Congressional Summer Interns Forum: Budgetary Problems, Washington, D.C., on "GAO's Contribution to the Legislative Branch," August 8.

The following are recently published articles of the Comptroller General.

"The Public Service—90 Years Later" (address at Commemoration of 90th Anniversary of the Civil Service Act, January 16, 1972) in the Civil Service Journal, April—June 1973.

"1972 Rockefeller Public Service Awards" (portions of statement, "Twenty Years of Rockefeller Public Service Awards," December 6, 1972) in the Civil Service Journal, April-June 1973.

"Congress' Budget Problem: Setting an Overall Total and Priorities Within It" in *The Money Manager*, June 18, 1973.

"Measuring and Enhancing Federal Productivity" (address before The Conference Board Conference on Productivity, May 23) in The Conference Board *Record*, July 1973.

"Idealism or Cynicism" (Commencement Address, University of South Dakota, May 12) in *Vital Speeches of the Day*, July 1, 1973.

E. H. Morse, Jr., Assistant Comptroller General, has an article entitled "Auditing Government Operations" in the July/August 1973 issue of The Internal Auditor.

A. T. Samuelson, Assistant Comptroller General, was elected national treasurer of the National Association of Accountants, at the Dallas, Texas, conference in June 1973.

Thomas D. Morris, Assistant Comptroller General, addressed the following groups:

Joint Symposium of the Government Contracts Association of Michigan and the Detroit chapter of the Federal Bar Association, on "Cost Growth in Major Systems," Detroit, Michigan, May 17.

Federal Executive Institute, on "Seminar on Productivity," Washington, D.C., May 30.

Civil Service Commission Executive Seminar Center, on "Management and Organization," Oak Ridge, Tennessee, June 26.

Joint Conference on Productivity of the National Commission on Productivity and the Johnson Foundation, Wingspread Conference Center, Racine, Wisconsin, July 16– 18.

Federal Executive Institute, on "Management by Objectives and Productivity," Charlottesville, Virginia, July 24.

Mr. Morris was elected to the position of President-Elect of the National Capital Area chapter, the American Society for Public Administration for the 1973–74 term.

#### Office of the General Counsel

Paul G. Dembling, general counsel: Participated in the National Institute on the Report of the Commission on Government Procurement sponsored by the American Bar Association and the Federal Bar Association, Washington, D.C., May 31-June 1.

Spoke before the CODSIA Executive Committee on "Procurement Problems Evidenced by Award Protests," Washington, D.C., June 19. Spoke to students attending the Washington summer seminar of The "The American University on GAO," Washington, D.C., July 12. Participated in a "Bid Protest Documentary" at the Annual Meeting of American Bar Association, Washington, D.C., August 6.

Paul Shnitzer, associate general counsel, spoke before the Boston Chapter of the National Contract Management Association on "Bid Mistakes," Boston, June 14–15.

Richard R. Pierson, assistant general counsel, participated in the National Institute on the Report of the Commission on Government Procurement sponsored by the American Bar Association and the Federal Bar Association, Washington, D.C., May 31-June 1.

Thomas F. Williamson, senior attorney:

Participated in the National Institute on the Report of the Commission on Government Procurement sponsored by the American Bar Association and the Federal Bar Association, Washington, D.C., May 31-June 1.

Spoke at the annual meeting of the American Bar Association on "Regional Small Claims Boards of Contract Appeals," Washington, D.C., August 7.

Antoinette B. Friedman, attorneyadviser, spoke on "The GAO" before a Legislative Operations Roundtable for Executives conducted by the Civil Service Commission at Washington D.C., May 15.

Martin L. Glass, attorney-adviser, participated in a Seminar on Government Contracts sponsored by the Federal Bar Association and the Federal Contracts Association of Michigan, Detroit, May 16–18.

#### Office of Legislative Liaison

T. Vincent Griffith spoke at the Civil Service Commission's Institute on the Legislative Function on "GAO Assistance to Congress," June 5.

#### Office of Personnel Management

Leo Herbert, director, spoke on "What the Government Expects of an Accounting Major" at the faculty summer seminar, June 4, Rosslyn, Virginia. This seminar was cosponsored by the American Institute of CPAs and the Virginia Society of CPAs.

#### Financial and General Management Studies Division

Donald L. Scantlebury, director:

Conducted a seminar on standards for audit of governmental organizations, programs, activities, and functions, May 18, Blacksburg, Virginia. The seminar was sponsored by the Roanoke chapter, Virginia Society of CPAs, the Virginia Polytechnic Institute, and the University of Virginia.

Was moderator of a workshop on

"GAO Standards for Audit of Governmental Organizations, Programs, Activities, and Functions" presented at the Federal Government Accountants Association 22d Annual National Symposium, Washington, D.C., June 13–15.

Spoke on GAO policies and practices in approving accounting systems at a Defense Department financial management seminar held at Airlie House, Airlie, Virginia, June 28.

Fred D. Layton, deputy director, spoke to participants of the Civil Service Commission Executive Seminar, Oak Ridge, Tennessee, on "Better Federal Management: The Role of the General Accounting Office," July 10.

Richard W. Maycock, deputy director, was moderator of a workshop on "Accrual Accounting" presented at the Federal Government Accountants Association 22d Annual National Symposium, Washington, D.C., June 13–15.

Keith E. Marvin, associate director: Led a workshop on evaluation of Federal, State, and local programs at the 32d International Conference of the Institute of Internal Auditors, Washington, D.C., July 4.

Cochaired, with Wallace M. Cohen, assistant director, a working group on cost control and benefit analysis at the meeting of the Military Operations Research Society, U.S. Naval Academy, Annapolis, Maryland, June 19-21.

Wallace M. Cohen, assistant director, was invited on June 1973 by the

Executive Board of the Military Operations Research Society to membership of the Symposia Plans and Operations Committee. He will participate in that committee's consideration of standards and guidelines for analysis applicable to the membership of the military operations research community.

Howard R. Davia, assistant director, led a workshop sponsored by the Association for Multidiscipline Education in Health Sciences at the University of Connecticut, Storrs, Connecticut, June 14 and 15. The workshop participants, representing various university medical schools, were interested in initiating a program to develop a uniform cost accounting system for medical education programs.

Mortimer A. Dittenhofer, assistant director:

Talked on "Accountability" to the National Contract Management Association, San Francisco, May 11.

Conducted a conference on Government audit standards for Government officials and CPAs, Los Angeles, May 15 and 16.

Made a presentation on Government audit standards to State auditors from 11 States who were attending a conference on State auditing, Bismarck, North Dakota, May 23–26. Spoke to the Oregon State Society of CPAs on Government audit standards, Portland, Oregon, May 30.

Reported on the status of certain GAO activities to improve intergov-

ernmental auditing to the Committee on Governmental Accounting, Auditing, and Financial Reporting at the National Convention of the Municipal Finance Officers Association, Kansas City, June 5.

Presented a paper on the applicability of Government audit standards to industry at a seminar on "Operational Auditing Applications" sponsored by the American Management Association, New York City, June 11.

Was a panel member of a workshop on the GAO "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions" at the Federal Government Accountants Association 22d Annual National Symposium, Washington, D.C., June 13–15.

Made a presentation to two workshop groups on July 2, and again on July 4, on the application of Government audit standards to internal auditing at the International Convention of the Institute of Internal Auditors, Washington, D.C.

Was a panel member at a seminar entitled "Auditing to Improve Departments of Education," Atlanta, Georgia, July 16.

Spoke on Government audit standards at the annual convention of the National Association of Counties, Dallas, July 24.

Presented a paper on a suggested postauditing act for States at the National Legislative Conference, Chicago, August 7–10.

Ernest H. Davenport, assistant director, spoke on Government audit

standards to county auditors of Texas, Austin, May 17.

Hermon Galvin, assistant director, delivered a paper at a working group session of the Military Operations Research Society, Annapolis, Maryland, June 20.

James L. Hedrick, assistant director, participated as a member of a National Advisory Committee on Program Evaluation in the development of evaluation principles and standards for private rehabilitation hospitals for the Commission on Accreditation of Rehabilitation Facilities. The Committee met in Chicago, June 14 and 15.

John Moundalexis, assistant director, was a panel member of a workshop on "Accrual Accounting" presented at the Federal Government Accountants Association 22d Annual National Symposium, Washington, D.C., June 13–15.

Earl M. Wysong, Jr., and James P. Gliver, assistant directors, participated in a 1-day seminar sponsored by the Federal Government Accountants Association Washington chapter, Washington, D.C., July 25. Mr. Wysong, as a seminar leader, spoke on GAO's accounting system approval function from the ADP viewpoint.

Rodney E. Espe, audit manager:

Conducted a 1-day workshop in San Juan, Puerto Rico, on government audit standards. The workshop was held May 17 and was attended by audit and finance officials from all levels of government.

Presented a paper on "Government Audit Standards and Report Content" at a conference on State auditing, Bismarck, North Dakota, May 26.

Spoke at a conference of the Kansas State Society of CPAs on "Government Audit Standards and the CPA," Wichita, Kansas, June 15.

Addressed a national meeting of the American Association of State Highway Officials on government audit standards, Atlanta, Georgia, August 2.

Presented a paper to a workshop group at the National Legislative Conference, Chicago, August 7–10. Mr. Espe discussed the current status of two projects: Federal payments for audits by State auditors and the evaluation of government audit organizations.

James K. Kardokus, supervisory management analyst, participated in a panel discussion at the June 22 meeting of the Information and Records Administration Conference. Mr. Kardokus spoke on "Congressional Interest in Information and Reports Management."

Fred J. Rauscher, supervisory systems accountant, was a panel member of a workshop on "Accrual Accounting" presented at the Federal Government Accountants Association 22d Annual National Symposium, Washington, D.C., June 13–15.

The following FGMSD personnel will hold offices in the Washington chapter of FGAA during the 1974 chapter year.

- Fred Layton, deputy director, will serve as editorial director.
- Joseph Donlon, supervisory sys-

- tems accountant, will serve as program director.
- Bert Rosen, Assistant director, will serve as publicity director.
- Bob Meyer, supervisory systems accountant, will serve as chairman of the chapter Newsbulletin Committee.

#### General Government Division

The following individuals have been designated as Certified Internal Auditors by the Institute of Internal Auditors: O. Gene Abston and Daniel Stanton, assistant directors, and Samuel A. Caldrone, Edward J. Kalinyak, Norman A. Stubenhofer, Jack Wild, John F. Kosinski, and Gerald Stankosky, supervisory auditors.

O. Gene Abston, assistant director, graduated from the U.S. Army's Command and General Staff College, Fort Leavenworth, Kansas, July 27.

Max A. Neuwirth, associate director, participated in the 54th Annual International Conference of the National Association of Accountants, Dallas, Texas, June 25-27.

Michael Gryszkowiec received his M.B.A. degree from The American University in May 1973.

#### International Division

Louis W. Hunter, director, European Branch, was elected president of the Frankfurt chapter of the FGAA for the year 1973-74.

Joseph De Giorgio, assistant director, spoke about the evaluation of documentation—systems, programs, and

computer software—at the EDP Auditors Association Conference, Los Angeles, July 7-8. During the next year, he will serve as editor of *The EDP Auditor*, the association's quarterly publication.

# Logistics and Communications Division

George L. Egan and Bernard W. Sewell, assistant directors, participated in the Sixth Annual Physical Distribution Executive Development Seminar, Michigan State University, June 10-15.

Clarence O. Smith, assistant director, was awarded an M.B.A. degree, with a specialty in Management Information Systems, from The American University, Washington, D.C., in August. Mr. Smith was selected to appear in the 1973 edition of "Personalities of the South," in recognition of past achievements, outstanding ability, and service to the community and State.

Richard A. Helmer, audit manager, attended the 26th Conference of the National Association of State Agencies for Surplus Property, Hot Springs, Arkansas, June 4–8. Mr. Helmer addressed the conference on GAO and its interest in Federal personal property.

Hugh G. Pollon, supervisory management auditor, participated in the Integrated Disposal Management System—Automated Property Accounting Training Seminar, Jacksonville Naval Air Station, Florida, June 4—8.

#### Manpower and Welfare Division

Gregory J. Ahart, director:

Addressed a joint meeting of the Northern Virginia chapters of FGAA and AICPA, May 15 on "The Responsibilities of the Professional Accountant—Federal, State, Local and Independent—When Auditing Federally Supported Public Programs."

Spoke at the Annual International Conference, National Association of Accountants on "Corporate Citizenship," Dallas, June 25.

Dean K. Crowther, deputy director, addressed the Brookings Institution Conference for Business Executives on Federal Government Operations on July 9. His topic was "Role of the General Accounting Office."

#### Procurement and Systems Acquisition Division

Richard W. Gutmann, director, participated as a panelist at the 18th National Conference of the Armed Forces Management Association on June 7. The panel discussed the recommendations of the Commission on Government Procurement.

Harold H. Rubin, deputy director, attended the seminar on "Socio-Political Inputs to Technology Forecasting" at the Maine Maritime Academy, Castine, Maine, June 18–22. The symposium was sponsored by the Industrial Management Center, Inc.

Charles A. Kezar, operations research analyst:

Has been appointed chairman of the Technical Assistant Group of the Washington Operations Research Council, This group provides systems analysis services to the Fairfax County, Virginia, Federation of Citizens Associations and other area nonprofit civic groups.

By invitation of the Military Operatics. Research Society, discussed the paper "Auditing Cost-Effectiveness Analysis of Technical Change" by N. K. Womer of the Navy Post Graduate school, at the MORS June meeting, Annapolis, Maryland.

#### Resources and Economic Development Division

Henry Eschwege, director, spoke to the Ad Hoc Committee of the Transportation Association of America at the Washington Hilton, May 30. His topic was "Need for Improved Inspection and Enforcement in Regulating Transportation of Hazardous Materials."

Philip Charam, deputy director, attended the National Association of Accountants Mid-Atlantic Regional Conference and workshop, Richmond, Virginia, April 26–28.

Edward Densmore, assistant director, represented the Comptroller General at a conference sponsored by the Association of Metropolitan Sewerage Agencies entitled "Discharges to the Pacific Ocean," July 12 and 13, San Francisco.

Thomas P. McCormick, supervisory auditor, spoke in February 1973 to the Business Forum Club at Saint Vincent College, Latrobe, Pennsylvania, on career development opportunities in the General Accounting Office.

Bernard L. Ungar, supervisory auditor, attended the 5th Annual Conference of Radiation Control Program Directors, Portland, Oregon, May 1973.

# Transportation and Claims Division

T. E. Sullivan, director, and Joseph Goldman, assistant director, attended the annual meeting of the National Committee on International Trade Documentation, Washington, D.C., July 11. A complete summary of NCITD programs, progress, and plans for future action was presented followed by discussions of problems to be resolved in standardizing international and domestic documents.

#### Field Operations Division

Stewart D. McElyea, deputy director, Field Operations Division, spoke at the Federal Government Accountants Association 22d Annual Symposium, Washington, D.C., on "Who Should Do the Accounting for Social Measurement?", June 14.

Robert W. Hanlon, regional manager, Cincinnati:

Addressed the Wabash Valley chapter of the National Association of Accountants in Terre Haute, Indiana, March 20, on "The Role of the General Accounting Office."

Was guest speaker at the Civil Service Commission Executive Seminar Center, Oak Ridge, Tennessee, where he addressed a "Management of Organizations" seminar on the

role of GAO in the management of government operations.

Walter C. Herrmann, Jr., assistant regional manager, Cincinnati, addressed a "Management of Organizations" seminar at the Civil Service Commission Executive Seminar Center, Oak Ridge, Tennessee, April 19.

Nander Brown, Jr., ADP group supervisor, Cincinnati, addressed the Management Information System Conference at Kent State University, April 7. His topic was "Shopping for Data Processing Services: Problems and Pitfalls To Be Avoided." Mr. Brown was also elected president of the Cincinnati chapter of the EDP Auditors Association.

Daniel L. McCafferty, audit manager, Cincinnati, and James B. Dawson, supervisory auditor, Indianapolis, have been elected president, respectively, of the Cincinnati and Indianapolis chapters of FGAA for fiscal year 1974.

Paul Cox, auditor, Cincinnati, addressed the Cincinnati chapter of the EDP Auditors Association, April 25, on "Auditing Online Realtime Computer Systems."

Irwin M. D'Addario, regional manager, and Edgar L. Hessek, audit manager, Denver, participated in an audit standards workshop, Bismarck, North Dakota, May 25. The workshop was sponsored by the State auditors of North Dakota and GAO and was part of a professional development seminar for State auditors from 14 western States. Mr. D'Addario led a group discussion on the basic concepts of the audit standards, illustrating GAO

economy and efficiency reviews. Mr. Hessek presented a case study of program results on social services.

Fred L. Hayes, supervisory auditor, Denver, was guest speaker at the college accounting luncheon at the Community College of Denver, May 24. His topic was "What Accountants Do in the Federal Government."

Michael J. Higgins, David J. Rettiger, and Charles A. Heese, audit managers, Kansas City, were elected president, secretary, and meetings chairman, respectively, of the Kansas City chapter of FGAA for fiscal year 1974.

On June 14, Danny L. Statler, audit manager, Kansas City, addressed Department of Agriculture veterinarians on selected aspects of program evaluation at a meeting in Atlanta, Georgia, concerning the Southeastern Region Meat and Poultry Inspection Program.

Victor Ell, Jimmy L. Bowden, and Dennis G. Schilcher, supervisory auditors, Los Angeles, were elected president, treasurer, and secretary, respectively, of the Los Angeles chapter of FGAA for fiscal year 1974.

Mr. Ell taped a presentation regarding work of the General Accounting Office which was shown on KCOP, Channel 13, August 8.

George E. Grant, Anthony W. Eleamos, and Nicholas W. Horsky, supervisory auditors, Los Angeles, were awarded the Certified Internal Auditor certificate of the Institute of Internal Auditors, July 1973.

Walter H. Henson, regional manager, Norfolk, addressed the Society for Advancement of Management at East Carolina University, May 2. The

subject of the address was "The Expanding Role of the Independent Management Auditor."

On May 15, Milton H. Harvey, assistant regional manager, Philadelphia, participated in a symposium sponsored jointly by the Harrisburg chapter of the Federal Government Accountants Association and the East Central Pennsylvania chapter of the National Contract Management Association. Mr. Harvey served as moderator for a panel discussion on "Management Performance."

Jack R. Stuart, supervisory auditor, Philadelphia, and Mr. Harvey were elected president and director, respectively, of the Philadelphia chapter of FGAA for fiscal year 1974.

Robert A. Higgins, supervisory auditor, Seattle, was appointed for program year 1973-74 to the Executive Board of Directors of the Oregon chapter, American Society for Public Administration.

L. Neil Rutherford, supervisory auditor, Seattle, addressed the annual municipal accounting conference sponsored by the Oregon Society of Certified Public Accountants, Portland, Oregon, May 30. His topic was "Auditing Standards and the New Federal-

ism." Mr. Rutherford was also appointed to the Legislative Committee of the Washington Society of Certified Public Accountants for the program year 1973–74.

Douglas E. Cameron, supervisory auditor, Seattle, was appointed for program year 1973-74 to the Governmental Accounting and Auditing Committee of the Oregon Society of Certified Public Accountants.

Robert McLoughlin, supervisory auditor, Washington, was elected to the Executive Committee, Northern Virginia chapter of FGAA.

Valdis Karklis, supervisory auditor, Washington, was named to the FGAA National Election Procedures Committee.

Walter P. Flanagan, Jr., supervisory auditor, Washington:

Was elected Vice President for Public Relations of the Washington chapter of the Society for the Advancement of Management.

Addressed the Math Department students of the William H. Farquhar Middle School in Olney, Maryland, on recent developments in the Government concerning proposals to convert the United States to the metric system.

# Successful Candidates— November 1972 CPA Examination

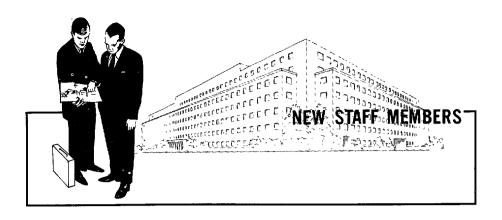
#### REGIONAL OFFICE

Name	Regional Office	State
Ronald R. Bernhard	Dallas	Louisiana
Eugene H. Cantor	Washington	Maryland
John M. Dimino	Washington	Virginia
Joseph P. Dion, Jr.	Los Angeles	California
Natalie R. Hurlbrink	Philadelphia	Pennsylvania
Manfred Kehr	San Francisco	California
Joseph L. Wyszynski	Philadelphia	Pennsylvania
David N. Zugsberger	Detroit	Ohio

#### WASHINGTON

Name	Division	State
James F. Donaghy	Manpower and Welfare	Maryland
Carl J. Fritzinger	Financial and General Management Studies	D.C.
Paul Math	Logistics and Communications	D.C.
Melanchthon Mench 1	Manpower and Welfare	Virginia
William F. Miller	Resources and Economic Development	D.C.
Carl T. Trisler	General Government	D.C.

<sup>&</sup>lt;sup>1</sup> Passed May 1972 CPA Examination.



The following new professional staff members reported for work during the period May 16, 1973, through August 15, 1973.

Financial and General Management Studies Division	DeManche, Earl R.	Central Piedmont Action Council, Inc.
	Kennedy, William C.	Environmental Protection Agency
	Sullivan, Ariel Y.	Howard University
	Usilaner, Brian L.	General Services Administration
Federal Personnel and Compensation Division	Kleeman, Rosslyn S.	Department of Health, Education, and Welfare
•	Mahoney, James E.	Executive Office of the President
	Trahan, Jane D.	Department of Justice
Office of the	Appleby, Cornwell G.	American University Law School
General Counsel	Centola, Robert J.	Harvard Law School
	Cherkis, Bruce H.	University of Baltimore School of Law
	Crystal, Robert G.	Peat, Marwick, Mitchell & Co.
	Finley, Ann H.	Office of Economic Opportunity
	Gellman, Robert M.	Yale Law School
	Goff, Jacquelyn A.	University of Illinois College of Law
	Milford, Mary M.	Attorney, self-employed
	Murphy, Robert P.	Columbia School of Law
	Springer, Richard B.	Attorney, self-employed
International Division— Washington	Carrington, Cynthia F.	Office of Economic Opportunity
Logistics and	Brown, Julius S.	U.S. Army
Communications Division	Cuilik, Clement W.	U.S. Air Force
Office of Federal Elections	Brock, Jack L.	University of Texas

Manpower and Welfare Division

Procurement and Systems Acquisition Division

Resources and Economic Development Division

Transportation and Claims Division

Washington Headquarters Divisions Career Group Grant, Murray Stuart, Brett R.

Adams, Jacob A. Balderson, Robert D. Welker, Robert A.

Southworth, Robert M. Vialet, John L.

Hopp, Thomas W.

Abraham, Christopher R. Bensky, Jonathan M. Bottitta, Louis W. Bresky, Robert J., Jr.

Brooks, Beverly J.
Brown, Keith E.
Calderone, Ronald J.
Chesser, Joseph C., II
Curtis, Adrian A.
Dodaro, Gene L.
Donner, Arthur
Dunlap, Betsy C.
Eid, Michael L.
Fenzel, William F.

Garza, Geronimo
Goss, Galen L.
Green, Kenneth
Greenfield, Walter
Hamer, Avolon J.
Harrell, Larry D.
Henbra, Richard L.
Hultgren, Roger T.
Lewis, James E.
Lynam, Leslie D.
Malloy, Joseph A.

Myers, Joseph H.
Nicotera, James R.
Patras, Louis R.
Price, William H., Jr.
Rachiele, Arlene A.

Mitchell, Maudie L. Molnar, Barry L.

Morrison, Francis E.

Robertson, Robert E. Rodic, Virginia M. Siegfried, Alan N.

Swartz, Linda A.

Touro Infirmary Veterans Administration

Department of the Air Force Syracuse University

Small Business Administration

Department of the Navy The Mitre Corp.

Interstate Commerce Commission

Carnegie-Mellon University University of Hawaii Kings College

University of Pennsylvania

Knoxville College Lincoln University Kings College University of Baltimore

Department of Labor Lycoming College Carnegie-Mellon University

University of South Carolina University of Kentucky University of South Carolina U.S. Postal Service Shippensburg State College New York University

University of Pennsylvania Boston University West Virginia University

West Liberty State College University of Connecticut Akron University

University of Delaware Kings College

Fayetteville State University Lehigh University

Benjamin Franklin University Carnegie-Mellon University

Duke University University of Southern California

Belmont Abbey College Pennsylvania State University Virginia Polytechnic Institute Ohio State University

Kings College

Virginia Polytechnic Institute and State University Washington Headquarters Divisions Career Group-Continued

Trancucci, William Tucker, Virginia L. Vieira, Peter M. Zadjura, Edward M.

St. Francis College Norfolk State College University of Rhode Island Wilkes College

#### **REGIONAL OFFICES**

**Atlanta** Baggett, David K. Cunningham, Alvin R. Davis, Alphonse R. Hall, Bobby D. James, Clyde E. Johnson, Howard E. Johnson, Jerome Landry, Martin G. Monroe, William O. Rucker, Charlie L. Soliday, Shellee S. Thomas, Charles B.

Troy State University Fort Valley State College University of South Alabama David Lipscomb College Office of Economic Opportunity University of Georgia Fort Valley State College University of Georgia Florida State University Morris Brown College University of Georgia Fort Valley State College University of Georgia Jacksonville State University

**Boston** 

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Withrow, Randall W.

Thomas, Judy A.

Northeastern University Babson College

Southeastern Massachusetts Sylvia, Wayne J.

University

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Whitehead, Jane E.

Chicago

Archie, Velma Blase, Kathy L. Gilbert, Jimmie Marek, Ann T. Spresser, Deborah L. University of Illinois DePaul University University of Illinois University of Wisconsin University of Iowa

Cincinnati

Butts, Johnnie L., Jr. Koontz, Robert P. Cheatham, Mark C.

Mississippi Valley State College University of Cincinnati

Dallas

Kershaw, Robert G. Kilcrease, Julia H. Livingston, Thomas E. Rucker, Marian A.

Tulane University Texas Technological University Southern University

North Texas State University

Schauwecker, Michael L.

Texas Southern University Louisiana Technological University

Tingle, Charles M.

Northwestern State University

Denver

Garsjo, Connie L. Thames, Robert L. Watson, Cephas

Montana State University University of Denver Jackson State College

Detroit

Pfeiffer, Deborah J. Zugsberger, David N. Akron University The Timken Co.

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	Schreck, Danny C.	Central Missouri State University		
	Sharp, Delmas D.	U.S. Marine Corps		
	Stubbs, Troy L.	Mississippi Valley State College		
Los Angeles	Claasen, Walter J.	California State University		
	Jackson, Michael D.	Morris Brown College		
	Osuna, Edward L.	California State University at Fullerton		
	Sokalski, Joseph A.	California State Polytechnic University		
	Strauss, William A.	California State University		
	Vogt, James J.	University of Southern California		
	Wilson, Bill E.	Jackson State University		
New York	Atkinson, Sandra G.	Dillard University		
HEN TOIR	Belanger, Roland A.	Bloomfield College		
	Broadnax, William E.	C. W. Post College of Long Island University		
	Brogdon, Douglas S.	Hampton Institute		
	Citarella, Kenneth C.	Manhattan College		
	Parker, Ronald E.	Hampton Institute		
	Thomas, Gail M.	Dillard University		
Norfolk	Berlin, Judy D.	Old Dominion University		
1011011	Jones, Finley O.	Norfolk State College		
	Marsh, Frank R.	Madison College		
	Overton, Jeffrey L., Jr.	Hampton Institute		
San Francisco	Davis, Arthur L.	Golden Gate University		
	Ellsberg, Patrick G.	University of California at Berkeley		
	Krakow, Dennis W.	California State University		
	McManus, Dana C.	California State University at Fresno		
	Ruesel, Steven D.	Department of the Army		
	Sellers, John M.	University of Southern California		
	Scheuerman, Jean R.	Western Washington State College		
	Yuen, Alexander E. C.	Golden Gate University		
Seattle	Frederickson, David M.	Western Washington State College		
	Liles, Johnny W.	Alabama State University		
	Larran Datas A	Oregon State University		

Lossner, Peter A.

Stoll, Evan L., Jr.

Todd, Terry A.

Oregon State University

Washington State University

University of Oregon

#### **REGIONAL OFFICES—Continued**

#### Washington (Falls Church)

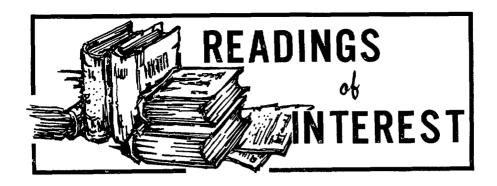
#### Allen, Elmo

Breen, George E., Jr.
Combs, Janis E.
Diehl, Clifford J. F.
Godfrey, William R.
Houk, James T.
Hunt, John P., Jr.
Johnson, Gary L.
Johnson, Richard A.
Lew, Helen
Mauzy, Don A.
Moore, Martha L.
Robinson, Robert A.

# University University of Maryland University of Maryland George Mason University State University of New York American University George Mason University Pennsylvania State University American University American University Shepherd College Madison College

University of Maryland

North Carolina A & T State



The reviews of books, articles, and other documents in this section represent the views and opinions of the individual reviewers, and their publication should not be construed as an endorsement by GAO of either the reviewers' comments or the books, articles, and other documents reviewed.

#### The Practice of Modern Internal Auditing Appraising Operations for Management

By Lawrence B. Sawyer; The Institute of Internal Auditors, Inc., 1973; 531 pp.; \$10.

Mr. Sawyer is supervising auditor for Lockheed Aircraft Corporation. Before that he was an audit manager in GAO's Los Angeles regional office.

Mr. Sawyer says this is a "how to do it" book; one that can be used by the student, the novice, the experienced practitioner, and those in management whom the auditing organization serves. The book offers practical guides on the primary aspects of modern internal auditing and on the internal auditing organization which seeks to practice it.

The concept of modern internal auditing as presented in this book is

certainly broad based. This is evident throughout the book, but it is particularly stressed and illustrated in his discussion and emphasis on control. Note Mr. Sawyer's statement in chapter 5 that

Of all the keys on the auditor's ring, his knowledge of control is the most useful, the most reliable, and the most universal. It is his master key, the "Open Sesame" that unlocks any door in the company.

Mr. Sawyer establishes early in chapter 1 that the successful internal audit function must have the proper degree of independence in the organization. This has a familiar ring because over the years GAO has devoted considerable attention to the adequacy of independence of internal auditing organizations in the Federal Government. Mr. Sawyer sums up independence very succinctly:

The auditor's goal, therefore, is to achieve the greatest amount of practicable independence in the real world situation in which he finds himself—independence which will protect him from having to compromise his audit objectives.

A key point in the book is the need to sell modern internal auditing to management. Mr. Sawver savs a major objective of the auditing organization is to be accepted as a full member in the councils of executive management. To do this the auditor must mount a continuing campaign to sell his product to executive management: and the product he sells must be of the quality that will capture and keep management's interest. This is important for GAO staffs to consider in reviewing agencies' internal audit functions. The effectiveness of an internal audit function will be seriously hampered if agency management up and down the line does not accept the function as being important and necessary and therefore does not support it in terms of providing adequate resources to do the job, granting access to all parts of the agency, and taking corrective action on audit recommendations.

Another matter of interest to GAO staff members concerns the subject of standards which is covered in chapter 9 on fieldwork. Mr. Sawyer states that, to make a meaningful examination, the auditor looks for a unit of measurement and then for a standard. By comparing his findings of fact with the standard, the auditor can arrive at an objective conclusion. Mr. Sawyer observes that as the auditor wades deeper and deeper into the stream of operations and begins evaluating management functions for which standards have not been established, he may find

himself faced with the need to establish his own. Mr. Sawyer cautions that this may not be easy; that the standards should match the objectives of the operation reviewed; and that, if the subject is technical, the standards should be validated by one who is technically qualified. He adds that the auditor should not fail to evaluate the standards themselves and the fact that they have been established and approved does not necessarily make them sacrosanct. These are key points auditors should be constantly aware of in their work.

The book presents an overview of various techniques and methods used by the modern internal auditor. Some of these are: preliminary survey, computer-assisted audits, operations research techniques, sampling, and the like. These, of course, are not new to experienced GAO auditors; however, I believe they do serve as a good refresher. For example, the chapter on sampling contains a useful summary to help the auditor decide which selection technique and sampling plan to use under various circumstances.

Chapter 11 contains some good material on reporting. In particular, it includes some useful information on oral reports, including for example using visual aids, preparing for the presentation, organizing the material, analyzing the audience, and preparing for questions and answers. Also Mr. Sawyer's position is that oral reports should not replace written reports. This, of course, is consistent with GAO policies.

Chapter 11 also provides a brief

discussion of informal reports and states that every auditing department has a need for an informal reporting system to complement its formal system. During the audit engagement, the auditor may find matters (1) requiring management's prompt attention to supplement oral reports on an ongoing project, (2) having no relation to ongoing projects but warranting a report to management, or (3) requiring postponement or abandonment of a project. The book states these and other matters can be made the subject of interim written reports.

The book presents numerous examples to illustrate the application of audit principles and techniques. These are used quite effectively; but, as a mild criticism, I would add that the examples, for the most part, are drawn from a manufacturing operation. The appeal of the book would probably have been even more universal had Mr. Sawyer worked in examples from other sectors, such as banking, government, real estate, and retailing.

Another possible shortcoming of the book is that little mention is made of the interdisciplinary approach to performing an audit. Mr. Sawyer does briefly mention on page 307, in connection with performing special studies for management, that technical

assistance should be solicited either on an as-needed basis or for the duration of the assignment. I think it would have been helpful to explore this in greater depth since, as we have seen in GAO, the interdisciplinary approach to performing certain reviews can provide excellent results.

Mr. Sawyer deals with several aspects of administering an audit departestablishing such as organizational structure; selecting and developing staff; preparing long-range programs; starting, planning, and controlling the audit project; and providing management with summary reports on audit activities and accomplish-These informative chapters ments. could be used as a guide in appraising the management of agency internal audit activities.

As to style and format, the well-presented material has meaningful side captions, a logical presentation, a readable writing style, and a comprehensive table of contents and index.

Overall, Mr. Sawyer has developed a meaningful book which should be interesting and useful to auditors in general.

> John F. Simonette Assistant Director Office of Policy

#### Annual Awards for Articles Published in The GAO Review

Cash awards are available each year for the best articles written by GAO staff members and published originally in *The GAO Review*. Each award is known as the Award for the Best Article Published in The GAO Review and is presented during the GAO awards program held annually in June in Washington.

One award of \$250 is available to contributing staff members 35 years of age or under at the date of publication. Another award of \$250 is available to staff members over 35 years of age at that date. For articles written by more than one author, the age of the oldest will determine the age category for judging purposes.

Staff members through grade GS-15 at the time of publication are eligible for these awards.

The awards are based on recommendations of a panel of judges designated by the Comptroller General. The judges will evaluate articles from the standpoint of the excellence of their overall contribution to the knowledge and professional development of the GAO staff, with particular concern for:

Originality of concepts.

Quality and effectiveness of written expression, including use of graphic arts where appropriate.

Evidence of individual research performed.

Relevancy to GAO operations and performance.

#### Statement of Editorial Policies

- 1. This publication is prepared for use by the professional staff members of the General Accounting Office.
- Except where otherwise indicated, the articles and other submissions generally express the views of the authors, and they do not necessarily reflect an official position of the General Accounting Office.
- 3. Articles, technical memorandums, and other information may be submitted for publication by any professional staff members. Submissions may be made directly to liaison staff members who are responsible for representing their offices in obtaining and screening contributions to this publication.
- 4. Articles submitted for publication should be typed (double-spaced) and range in length between 5 and 14 pages. The subject matter of articles appropriate for publication is not restricted but should be determined on the basis of presumed interest to GAO professional staff members. Articles may be submitted on subjects that are highly technical in nature or on subjects of a more general nature.

#### THE GAO REVIEW

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Logistics and Communications Division	Merwin F. Almy			
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U.S. GENERAL ACCOUNTING OFFICE

41