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From Our Briefcase

Treasury Monthly Report Provides Financial Statement Information

As financial management has become a topic of major interest and concern in recent years, such terms as "debt ceiling," "national debt," and "balanced budget" have become increasingly commonplace in newspaper headlines and television newscasts. The Department of the Treasury's "Monthly Treasury Statement of Receipts and Outlays of the U.S. Government" is a handy reference of facts and figures that can help financial management-oriented readers better understand these terms and the concepts that undergird them.

The statement summarizes federal government financial activities and reports as well as off-budget federal activities conducted in accordance with the United States budget. These reports detail accounting transactions that affect receipts and outlays and explain their related effects on government assets and liabilities. Information in the "Monthly Treasury Statement" is presented on a modified-cash basis.

A concise analysis accompanies each monthly statement, providing useful background and insights. For example, the analysis for the first half of fiscal year 1985 explains that "an increase in HUD low-rent housing loans results from an IRS revenue code change that eliminated the tax-exempt status of certain HUD low-rent housing notes. HUD is now redeeming these notes rather than rolling them over outside of the federal system." The analysis provides the busy reader with useful summaries, such as a listing of the big four programs (defense, social security, health care financing administration, and interest) that, in 1984 and the first half of 1985, accounted for approximately 75 percent of total outlays. In fact, total spending on these four programs is greater than total federal receipts!

Other sources of information about federal government financial activities include the following:

- *Guide to the Monthly Treasury Statement*, May 1983 (available from the Financial Management Service, U.S.

Department of the Treasury, Washington, D.C. 20226). Describes and explains each element within the "Monthly Treasury Statement" and includes an explanation of data preparation, a brief history of the publication, and other information.

- *Federal Financial Transactions* (available from the U.S. Government Printing Office, Washington, D.C. 20402). Provides a detailed description of the Department of the Treasury's financial operations.

- *A Glossary of Terms Used in the Federal Budget Process*, March 1981 (available from the U.S. General Accounting Office, Gaithersburg, Md. 20760). Provides standardized definitions of terms the federal government uses in the budgetmaking process.

- *Daily Treasury Statement* (available from the U.S. Government Printing Office, Washington, D.C. 20402, by subscription only). Provides data on the cash and debt operations of the Treasury; is published each working day of the federal government.

Checklist for Decisionmaking

Each of us makes hundreds of decisions every day. We make some with relatively little thought, others with careful consideration. In either case, we try to consider alternatives and evaluate consequences to make the best possible decision. Whether the issue to be decided is important or mundane, personal or job-related, it helps to have a framework or guide for making decisions.

Stuart Nagel of the University of Illinois, in his article entitled, "Checklist for Evaluating Public Decisions" (*Public Administration Times*, Oct. 15, 1984), provides such guidance in the form of a practical checklist. Nagel describes the checklist as being "based on experience, common sense, intuition, and other sources of insights...with the advantages of simplicity and practicality." Nagel presents four checklists, which are highlighted below.

I. General Tips

A. Elementary Tips

1. Know your subject mat-

ter. Be careful, however, to avoid unnecessarily postponing making decisions by using lack of information as an excuse.

2. Try your ideas on other people for their reactions. Avoid, however, becoming dependent on other people, rather than thinking for yourself.
3. Have a good night's sleep and a clear mind when making decisions.
4. Don't be too cautious; opportunities may be missed. At the same time, don't be too reckless; resources may be wasted.
5. Have some goals in mind, and list what they are.

B. Intermediate Tips

1. Think about what changes would make the second best choice into the first best choice, and how possible those changes are.
2. Where there is missing information on important variables, try to determine a threshold for those variables, above which you would decide one way, and below which you would decide another way. Then ask whether the variable is above or below that threshold, rather than try to determine exactly what the score is.
3. Bear in mind that many decisions are of such a nature that doing either too much or too little is undesirable. The object is then to find an optimum level when what one is seeking is maximized.

II. Steps To Follow

Nagel refers to Grover Starling's book, *How To Analyze Public Policy*, in listing the following questions.

1. What is the problem?
2. What should be the goals?
3. What are the alternatives and

the costs and benefits of each?

4. What are the risks?
5. What are the possible implementation problems that might be encountered in carrying out the decision?

III. Checking One's Completed Evaluations

This section of Nagel's checklist comes full circle to GAO. He quotes from William Dunn's "Public Policy Analysis: An Introduction." Dunn, in turn, had adapted his list from a checklist developed by GAO. It includes some of the following familiar criteria and questions.

1. Have evaluation goals been defined and described?
2. Has a clear approach to monitoring been developed and justified?
3. Has the feasibility of performing the evaluation been determined?
4. Has adequate documentation been obtained?

IV. Maximizing Output

Nagel concludes his four-part checklist with a section on "maximizing output" in which he lists some of the following suggestions. They can apply to personal decisions and larger public issues.

1. Sleep less by conditioning yourself to getting along with less sleep and by taking short naps.
2. Improve your reading speed and comprehension.
3. Minimize unconstructive time, such as time spent commuting, watching television, and engaging in unproductive conversation.
4. Do work that is enjoyable, and you will be willing to do more of it.
5. When you get behind, take on more work. This will generally result in getting more work done, and it will probably stimulate you to work faster on the work on which you are behind.

Work on Comparable Worth

"Employment statistics from the Census Bureau and the Bureau of Labor Statistics show that, on a national basis, women earn about 40 percent less than men. Similarly, data on federal employment obtained from the Office of Personnel Management il-

lustrate the existence of a wage gap between men and women, with 1983 data on federal white-collar workers showing that women earn about 38 percent less than men," according to GAO testimony last spring before the House Subcommittee on Compensation and Employee Benefits.

The issue of comparable worth is complex. GAO's recent work (GAO/ GGD-85-37, Mar. 1, 1985) on the subject was done in response to a congressional request to recommend a method for studying the issue in the federal government. Coverage of the subject in the media and professional literature has sometimes focused on issues as basic as the definition of comparable worth.

The American Society for Public Administration's biweekly newspaper (Mar. 15, 1985) provided a succinct discussion regarding definitions:

"Comparable worth' and 'comparable work' are somewhat different concepts. The comparable work concept involves a claim that different jobs held by men and women are similar enough in their function and in their skills required to justify equal wages. Comparable worth, however, is not limited to comparable jobs. It relies not on a comparison of work, but a comparison of the measures of 'worth' (such as knowledge and skills, mental and physical demands, responsibility, and working conditions). The 'comparable worth' concept means that while work that a man and a woman do may be different, if it can be found to be comparable in a standard job evaluation, then the woman should be paid according to the estimated value of the work."

GAO's report discusses the comparable worth/pay equity issue and describes two general methodological options—economic analysis and the job-content approach—for conducting a federal study.

Economic analysis, a way to analyze wage differentials by sex, involves the use of economic theories and models to determine why women earn less than men. This approach tends to focus on the characteristics of (1) the individual workers, (2) the occupations in which different workers are found, and (3) the institutional environments.

The job-content approach, on the other hand, focuses on characteristics of jobs rather than on the individual workers or the workplace. Job evaluation is used to determine the value or worth of jobs to an employer and to identify pay differences between comparably evaluated male- and female-dominated jobs.

In recommending a dual approach to study the issue, the GAO report states "reliance on both the job-content and economic-analysis approaches can provide a clearer understanding of how federal wages are set, and would be less susceptible to charges that important explanatory variables have been ignored."

The comparable worth issue is also being debated in states and cities across the nation. In May 1985, for example, the Los Angeles City Council approved a \$12 million contract that raised salaries of employees in traditionally low-paying jobs held mostly by women to the amount paid for comparable jobs held mostly by men. Los Angeles city employees in jobs held largely by women—clerks, secretaries, and librarians—earn an average of \$1,310 a month. Those in jobs deemed comparable but usually held by men—gardeners, warehouse workers, and garage attendants—earn \$1,492 a month. The new agreement will raise monthly pay for about 3,900 female workers to \$1,492.

Fiscal Year '86 U.S. Budget Includes Management Report

The U.S. Office of Management and Budget (OMB) has issued a new document as part of the budget of the U.S. government, fiscal year 1986, that should interest anyone concerned with improved government. The document, "Management of the U.S. Government," was submitted with the budget in response to a Deficit Reduction Act requirement that the President report to the Congress on efforts to improve federal government management. The 100-page document reports on all management improvement activities included in the administration's 1986 budget and contains descriptions of the ongoing Reform '88 efforts as well as legislation that the administration proposes for removing "statutory impediments to good management."

Although written with a clear bias toward the current administration's view on how to manage the federal government, this document is a useful and compact reference on current management improvement initiatives. It focuses on Reform '88 and discusses, in some detail, such related issues as eliminating fraud, waste, and abuse; controlling the cost of ad-

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On Location

TV Producer: All Americans Need To Know Black History

Black and white Americans "need black history more than they suspect," says Tony Brown, producer and host of the long-running public television program, *Tony Brown's Journal*. However, black Americans especially need the cultural knowledge of their past because, he says, "we must be proud of who we are before we can expect to make progress." Speaking to a receptive Black History Month program audience in February 1985, Brown contended "you are an inseparable part of the culture which created you" and urged individuals to become more aware of the unique and varied cultural strains in the United States.

Founder and first dean of the Howard University School of Communications in Washington, D.C., Brown writes a weekly column carried in more than 100 newspapers. He is best known, however, for his perceptive, eye-opening television program, now in its 17th year on the Public Broadcasting System. According to surveys, 60 percent of the audience that watches *Tony Brown's Journal* is white.

Brown acknowledged existing roadblocks to the progress of blacks, including the notion, "If you're pro-black, you're anti-white." He dismissed this notion, telling blacks in the audience, "You must learn that if you're pro-black, you cannot be anti-white. The only people who need to dominate (other individuals or other races) are psychotics, neurotics, and other 'kooks.'"

Brown also criticized television's dissemination of derogatory ethnic stereotypes. Because freedom ultimately must be an internal experience, blacks must ignore the stereotypical images displayed on television, if not stop watching that medium altogether. "These shows tell us that we don't love ourselves, that we don't want to raise our babies," he said. Brown singled out such shows as *Good Times* ("I call it 'Bad Times.'") and such popular characters as Mr. T ("I detest the stereotype he represents.") as being especially derogatory. Rather than watch television, he said, blacks should look to the

more traditional values of black family life—the deeply rooted sense of spirituality and the equally strong belief in the sanctity of the family unit—for inspiration and sustenance.

The journalist also chided blacks for not "turning over" more money in their own communities. "We are not a minority," he said, "we're not poor. We're America's most dependable consumers. Why the disparity (in income between whites and blacks)?" Because blacks spend their money in other neighborhoods, contrary to what other ethnic groups do, Brown said. He attributed this practice to a pervasive mentality that leads blacks to reject their own institutions in favor of those operated by other ethnic groups. Condemning this practice, Brown said, "If we don't take what we got to get what we want, we'll never get anything."



Television producer Tony Brown told a GAO audience, "All Americans need black history" during the annual Black History Month program.

Comptroller General Bowsher, in his brief but telling speech, noted the program theme, "Progress Through Unity," and expressed hope "that this theme is remembered by the staff and reflected in the work of (GAO)." He reassured the audience that his commitment to equal employment opportunity and affirmative action principles "is as strong, if not stronger" than it has been in the past. Mr. Bowsher evoked laughter from the audience

when he noted that he has "11 years left in office, more than most people in this room can say." But, he added, GAO cannot accomplish the many goals on his agenda "if discriminatory practices, or any semblance of them, continue to divide us. It is imperative that every human resource within GAO be fully trained and utilized in carrying out the mission of our agency. This practice should be a natural part of 'how we do our work.'"

A spiritual lift to the program was provided by sopranos Delores T. Jones and Detra Battle, who offered moving renditions of traditional spirituals, and by W. Patrick Blackwell, who delivered an inspired poetry reading.

GAO's chapter of Blacks in Government (BIG) and the Civil Rights Office cosponsored the auditorium program as part of a series of Black History Month activities. These activities included a seminar, "Superwoman: Balancing Multiple Roles," a videotape, "History of the Civil Rights Movement," and the annual awards dinner of GAO's chapter of BIG.

JFMIP Theme: 'Managing the Government's Financial Resources'

Donald Moran, executive assistant director, U.S. Office of Management and Budget, and Comptroller General Bowsher were the two keynote speakers at the Joint Financial Management Improvement Program's (JFMIP) 14th annual Financial Management Conference, held March 20, 1985, in Washington, D.C. About 650 people were on hand for discussions that centered on improving the management of financial resources in government.

Mr. Moran said financial managers are fundamentally responsible for the stewardship of the government's money. This stewardship, in his view, is crucial to the development of the public's trust. He indicated that money and policy are firmly linked in a relationship where "money is policy" and reminded financial managers that they are the people most capable of making concrete policy.

Mr. Bowsher discussed the government's accomplishments in better

managing its resources during the past year. For the future, he emphasized the continuing need for modern computer systems that can provide cost information and show cash-basis and obliga-

tion reporting. Looking to restore the public's confidence in the government, Mr. Bowsher saw room for improvement and reaffirmed his commitment in three areas: accounting systems

with adequate controls; full disclosure in financial reporting; and efficient, timely, and modern operation of federal programs.



Participants in the JFMIP 14th annual Financial Management Conference included (L-R, front row) Carole Dineen, Treasury; Susumu Uyeda, Private Sector Council; Clyde Jeffcoat, Army (holding the plaque of the Donald L. Scantlebury Memorial Award); Mary Wiseman, Small Business Administration; Virginia Robinson, GAO; David Dukes, Health and Human Services; (L-R, back row) Alvin Kitchen, Office of Personnel Management; John Lordan, Office of Management and Budget; Frederick Wolf, GAO; John Toole, Ernst and Whinney; Comptroller General Bowsher, GAO; Comptroller General Earle Morris, South Carolina; Gerald Murphy, Treasury; and Gen. Max Noah, Army.



Frank Conahan (L), director of NSIAD; Ellen Aronson, Office of Library Services; and Bill Thurman, deputy director, Planning and Reporting for NSIAD; discuss the many services the Technical Information Center offers to NSIAD staff.



Mr. Bowsher and Mr. Conahan enjoy refreshments at the opening of NSIAD's Technical Information Center on May 16.

In one of the conference highlights, the 1984 Donald L. Scantlebury Memorial Awards were presented by Clyde E. Jeffcoat, principal deputy commander of the U.S. Army Finance and Accounting Center, and Earle E. Morris, Jr., Comptroller General for the State of South Carolina. Both men received their awards for outstanding and continued contributions to financial management and accounting in the public sector.

Workshops

Several workshops were held during the conference, including sessions on "The Single Audit Act," "Improving Accounting Systems," "Improving Efficiency in Financial Management," and "General Financial Management Initiatives."

Conference proceedings may be obtained by writing to the JFMIP Publications Office, 666 11th Street NW, suite 705, Washington, D.C. 20001.

NSIAD Information Center Opens

The National Security and International Affairs Division (NSIAD) has established a Technical Information Center to help NSIAD staff members keep abreast of information about the agencies they audit. The Center, which was officially opened May 16 by Mr. Bowsher and Frank Conahan, director of NSIAD, is designed to provide basic informing information the division needs and to serve as a reference source for new technical information.

The Center's resources include background information on the agencies NSIAD reviews as well as copies of most of the agencies' regulations. It also contains current issues of periodicals on defense, national security, foreign aid, international trade and finance, and related subjects. The Center also has access to several data bases and two staff members available to provide assistance.

Within the Center (located in room 5001) is a secure conference room where staff members can hold discussions on classified information. The Center also maintains a microfiche file of classified materials, including the Department of Defense's selected acquisition reports (SARs), the *Journal of Defense Research*, and GAO reports. Other features of the Center include a computerized list of GAO staff members who are knowledgeable in subjects relevant to NSIAD work and a

file of catalogs and course descriptions for Washington-area defense schools and universities.

For more information on NSIAD's Technical Information Center, call Ann Borseth at (202) 275-3107.

Bureau of Labor Statistics Marks Centennial

The Bureau of Labor Statistics (BLS), the world's first national labor statistics agency (and GAO's neighbor on the second floor of headquarters), marks its 100th anniversary this year.

During the past century, BLS has been a pioneer in developing the Consumer Price Index, wage and collective bargaining trends, measures of employment and unemployment, gauges of productivity and economic growth, and job safety information.

In the January 1984 issue of the *Monthly Labor Review*, Janet L. Norwood, the nation's tenth commissioner of labor statistics, points to major principles that have guided BLS during its first century: commitment to objectivity and fairness, insistence on candor, protection of confidentiality, pursuit of improvement, commitment to consistency, and willingness to adjust to changing economic and social conditions.

The Congress passed legislation establishing BLS in 1884, with President Chester A. Arthur signing the bill into law on June 27 of that year. Carroll D. Wright, the Bureau's first commissioner, took office in January 1885.

BLS has been part of the U.S. Department of Labor since the Department was established in 1913. It will celebrate the anniversary by publishing a history and a centennial chartbook and by hosting several special centennial events. Interested readers can contact Mary Ellen Ayres, who provided this profile, at (202) 523-1554.

GAO Staff Active in Institute of Internal Auditors

GAO staff participated often in the 1984-85 activities of the Institute of Internal Auditors (IIA), an organization that has some historical linkages with GAO. During the 1960's and 1970's, both IIA and GAO were pioneers in expanded-scope or operational auditing, says Jim Wesberry, staff member in the Office of International Audit Organization Liaison and past

president of IIA's Washington chapter. While IIA primarily was gaining experience in the private sector and internal auditors in industry widened the scope of their activities, GAO was setting the pace world-wide for public-sector auditing.

Both organizations produced sets of professional auditing standards, GAO in 1972 and IIA in 1978. Dr. Mortimer A. Dittenhofer, who had led the GAO standards-development efforts, later helped develop the IIA standards. Having retired from Georgetown University (after earlier retiring from the federal service), Mr. Dittenhofer was elected as the new president of the Washington chapter, IIA, in spring 1985.

Even before the standards, GAO evaluators were frequent contributors to IIA activities in the field of operational auditing, and there was a great deal of information interchange.

Profile

The Institute of Internal Auditors, Inc., is a professional association having more than 29,000 members in over 170 chapters worldwide. IIA publishes a professional journal, *The Internal Auditor*, which often contains articles by GAO staff.

In addition, IIA offers its members a program of educational seminars and conferences, a comprehensive library of professional publications on auditing, a certification program to acknowledge excellence in the auditing profession, and a monthly newsletter called *IIA Today*. Perhaps more important, IIA chapters provide a worldwide network of local forums where members make professional contacts and exchange knowledge and experience.

Active Staff

IIA offers GAO evaluators an opportunity to pursue professional development and contacts in an environment where public- and private-sector auditors can communicate. Numerous GAO headquarters staff can interact with auditor colleagues in IIA's 600-member Washington chapter, the third largest local chapter in the world. Jack Adair (AFMD) sits on its board of governors. Harry Ostrow, Office of Policy; Jeanine Knowles, Office of Publishing Services; and Ray Wyrsh, Office of the General Counsel (OGC)

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Manager's Corner

This issue of "Manager's Corner" looks at recent research in "organizational effectiveness (OE)." Recently, more attention has been paid to the task of making organizations more effective. For managers, the question is not only how effectiveness can be defined but how it can be measured. The following article, written by Robert Minnick of the Office of Organization and Human Development's organization analysis and planning branch, surveys current research in OE and discusses how the concepts might be applied to such organizations as GAO.

Defining Organizational Effectiveness in Management

Organizational theorists are not the only ones interested in defining criteria for organizational success. The recent popularity of books and articles dealing with excellence in organizations (e.g., Peters and Waterman, 1982) attests to the breadth of interest in this subject. Managers are especially interested in learning what they can do to give their organization a competitive advantage. Case studies and qualitative analyses of successful management practices appeal to busy managers pressed by a variety of demands, although some academicians are skeptical of the validity of popularized claims of improved OE.

Mohr (1983) noted that public-sector managers and organizational theorists have quite different orientations to organizational effectiveness but is optimistic that reorienting research to include questions that interest managers will lead to useful results. For instance, researchers might scale back their aim of finding a theory of OE to address the question of when particular approaches to management are most likely to produce specific desired outcomes.

OE means different things to different people. Cameron and Whetton (1983) introduced their volume on organizational effectiveness by reiterating the common assertion that OE subject matter is in a confused state. Thus, students seeking to explore OE research experience significant problems, including multiple models of organizations, an unrestricted range of possible defining variables and rela-

tionships among variables, and an absence of acceptable criteria. As John Campbell (1977) noted, the choice of effectiveness criteria is a matter of theory and value preference. [Hints for using the effectiveness literature will be discussed later in this article.]

Putting the OE Construct to Work

Many prominent organizations, including GAO, have deliberated over how to achieve and maintain excellence, the popular manifestation of the OE construct. Despite the eagerness of managers to learn what other successful organizations do to gain and sustain success, excellence (effectiveness) remains a fairly idiosyncratic notion. Each organization embodies a distinct set of aims, values, constituencies, and characteristic behaviors. Managers are trying to attain excellence through self-reflection and selective incorporation of external ideas, with the intent of identifying a set of objective criteria and means for leading and managing their organization effectively. Attention to this goal acknowledges the importance of defining criteria for total organizational success as a matter of policy. One of the lessons about organizational success that is being put forth is the notion that excellent organizations have a strong and lasting sense of purpose (Vaill, 1984). Moreover, this sense of purpose needs to embrace a small number of basic but discrete organizational objectives (Starbuck and Nystrom, 1983).

Pursuing effectiveness as a matter of organizational policy is not a new idea. It is implicit in the notion of strategic planning, for instance. This pursuit remains, however, an elusive and difficult task involving three problems that are well-documented in effectiveness literature:

- Deciding which criteria to use to define success.
- Reconciling conflicting aims resulting from diverse stakeholder interests and temporal priorities.
- Assessing the degree of progress toward organizational goals.

The third problem is a methodological issue that cannot be given sufficient attention in this context. (See Van de Ven and Ferry, 1980; Lawler, et al., 1980.) When Campbell and others

(1974) reviewed the OE research, they discovered 30 types of criterion measures, including traditional productivity measures and process measures. Ultimately, the choice of criteria reflects the values of the decisionmaker (Campbell, 1977) and implies choice of an action model. To some extent, the result means that certain kinds of operating decisions may be preordained. While it is not possible to determine from the effectiveness research which criteria are essential in defining organizational success, the synthesis of criteria on measures may point managers in the right direction.

The existence of conflicting interests among organizational stakeholders and constituencies is another problem that managers confront in tackling OE. The real issue for managers is to know how much of this natural conflict is tolerable. Conflict-resolution literature suggests that value diversity in an organization can be tolerable, even positive, as long as an underlying basic consensus and superordinate goals exist.

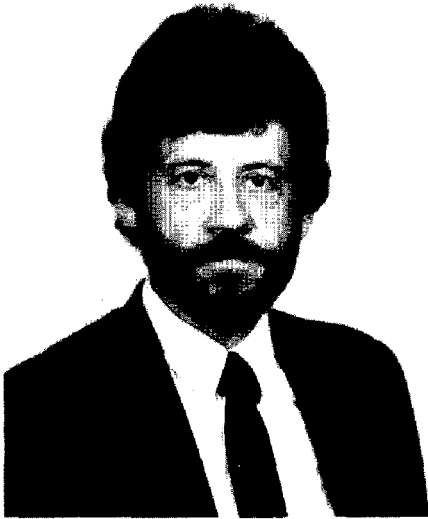
Applying OE at GAO

One interesting notion that has recently emerged suggests that open discussion of stakeholders' OE theories can lead to basic consensus-building. Related to this idea is the assertion that management can exploit its diversity by encouraging organization-wide discussion (Argyris, 1978). GAO's Office of Organization and Human Development recently developed an Organizational Effectiveness Workshop that enables unit managers to express their individual theories of effectiveness at the unit level. In the workshop, managers present and examine aspects of their theories, such as the ones that follow:

- Effectiveness Characteristics. (What would characterize your organization if it were totally effective?)
- Effectiveness Indicators. (How would you measure the extent of your organization's effectiveness within the key areas?)
- Determinants of Effectiveness. (What conditions, or factors, have the

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Topics in Evaluation



Carl E. Wisler

Mr. Wisler is an associate director in GAO's Program Evaluation and Methodology Division.

This issue's topic is methods for determining cause and effect.

In the middle of the 19th century, Great Britain began to make substantial strides in coping with public health problems. Much of the credit for its success belongs to government officials who amassed large amounts of data on mortality, morbidity, and environmental conditions and performed painstaking, manual analysis of the data.

But not all of the analyses were on the mark. In 1852, William Farr, chief statistical medical officer in the General Registry Office, wrote a "Report on the Mortality of Cholera in England." In one of the report's statistical tables, Farr showed the clear relationship between cholera mortality in London and altitude of residence. From this data, Farr wrongly concluded that low altitude was a cause of cholera. We now know that cholera is caused by a microorganism usually transmitted through a sewage-contaminated water supply. It is also clear why Farr's data showed that cholera was related to altitude: London's most severe sewage problems were in low-lying districts along the Thames.

Determining the cause of an observed effect or the effect of an observed cause is tricky business. A few decades after Farr went astray in search of cause, the English philosopher John Stuart Mill set forth

his five methods of experimental inquiry, probably still the best-known, systematic treatment of causation.

To illustrate one of Mill's methods, suppose three GAO evaluators go to lunch and suffer untoward effects. Evaluator A ate egg drop soup, moo shi pork, and a fortune cookie and became ill. Evaluator B ate no soup, but ate moo shi pork and a fortune cookie and became ill. Evaluator C ate egg drop soup, a fortune cookie, no moo shi pork and became ill. If we assume that one and only one of the three food items can be the cause of the illness, we can use what Mill called the method of agreement to infer cause. The argument is that the cause must be present whenever the effect is present. Clearly, the fortune cookies should have been read but not eaten.

Mill's methods underlie most modern techniques for determining causal relationships. In this issue, we'll briefly outline some of the methods currently in use.

A Question of Cause and Effect

Consider the following scenario. Smokestack industries are cutting back production or going out of business, forcing many displaced workers to seek jobs in new occupational categories. Although some government programs designed to alleviate the problems of career changes exist, preliminary evidence indicates that many workers are having a hard time finding employment. To guide public policy, suppose we want to answer the question: What factors determine whether displaced workers find new jobs?

This is a question about cause and effect. There are two possible perspectives from which to view the basic language of causation. Starting with a possible cause and seeking the corresponding effect, our question might be: What is the effect of a training program on the probability of reemployment? We begin with the idea that a training program may cause an improvement in reemployment, but we assume that there are multiple causes influencing the outcome. Our task is to isolate the effect of the training program from other causes and to estimate the magnitude of program ef-

fect (e.g., participation in the training program might increase the probability of reemployment by 20 percent). Beginning with the cause and seeking the effect is a common approach in program evaluation, medical and agricultural research, and other disciplines.

Another approach is to begin with an effect and seek the causes. One way of doing this, common in auditing and some other disciplines, is first to frame the issue as a normative question (see "Topics in Evaluation," summer 1984). For example, a government objective (criterion) might be that the probability of reemployment be 90 percent. The normative question would then be: To what extent has the goal of 90-percent reemployment been achieved? If there was a shortfall of, say, 30 percent, then the next question would be: What are the causes of the shortfall in the reemployment probability?

One approach starts with a cause, the training program, and asks for the effect (of the program). The other approach starts with an effect, a 30-percent shortfall, and asks for the (usually) multiple causes. Next, we will look at methods for answering both kinds of questions.

Methods for Determining Cause and Effect

Causal methods, rooted in the philosophical meanings of cause and effect and in the nature of the phenomena under consideration, vary considerably among disciplines and are subject to rises and declines in popularity. In some fields, the development of new and refined methods is an active frontier. In other fields, the methods are relatively stable. This short tour, which will focus on methods useful for audit and evaluation, will necessarily omit many methods for determining cause and effect.

Informal Methods

A number of methods that are found useful in practice but are not highly formalized are very close to Mill's methods. To illustrate a few of the ideas, we will create some data for the displaced-workers problem. Suppose that 1 year after the Nipponitsnot Steel

Figure 1

Employee	Age	Prior occupation	Job counseling	Training program	Employment status
1	34	Pig-machine operator	Yes	No	Employed
2	52	Melter supervisor	No	No	Unemployed
3	29	Acid-crane operator	No	Yes	Employed
4	31	Blast-furnace keeper	Yes	Yes	Unemployed

Plant closed down we begin interviewing former employees. We fill in a data sheet, the first four cases of which are shown in Figure 1.

To discover causal relationships, we search the data for patterns. Is there some cause that always has a fixed relationship with the effect? For example, is the outcome "employed" always associated with participation in job counseling? Probably not. Is there a pair of causes that, when both are present, indicate that the worker is almost always employed? Maybe.

The search goes on through many possible combinations looking for the most "plausible" causal relation. A causal candidate for explaining employment is one that is associated with employment. If people who participate in training programs usually find employment and those who do not participate are less likely to find employment, we would observe a strong association between the two factors. Whatever the strength of the association, however, we know that correlation does not prove causation, so the evidence is only circumstantial. There might be other factors, such as motivation, that influence participation in training and probability of obtaining employment. It is possible that no causal relationship exists between training and employment and that their correlation reflects only a spurious relationship comparable to the one William Farr discovered between low altitude and cholera mortality.

The displaced-workers problem illustrates a difficulty that afflicts all methods, except experiments, for determining cause and effect. If we do not collect information about a possible causal factor, such as worker motivation or the prevalence of sewer-contaminated water supplies, then we cannot consider the factor's causal influence. It is possible, therefore, to draw the wrong conclusion about causation.

Informal methods are prominent in the management literature about problem-solving (Kepner & Tregoe, 1976; Ackoff, 1978). Sociologists use analytic induction or negative case analysis, techniques similar to that used in the displaced-workers example (Denzin, 1978; Manning, 1982). Policy analysis literature calls some informal methods "pattern-matching" or "explanation-building" (Yin, 1984). Finally, Miles and Huberman (1984) provide many techniques that are helpful when the data are qualitative.

Causal-Modeling Methods

Causal-modeling methods begin with propositions and use data to formally test the reasonableness of the propositions. For example, Figure 2 depicts a simple version of possible causal relations in the displaced-workers situation. The proposition is that employment, expressed as probability of finding work, is determined by four factors: worker's age, prior occupation, participation in job counseling, and participation in training. The arrows show the hypothesized causal links, and other unknown and

unmeasured factors are assumed. We want to use the data we have collected to test the proposition and to determine the relative strength of the candidate factors.

Causal-model users set forth a system of equations that characterizes the relationships illustrated in Figure 2. They then collect data for each of the variables in the model and carry out statistical analyses to see if the hypothesized causal relationships are supported by patterns in the data. Conclusions about the relative effects of candidate causal factors are derived from the model.

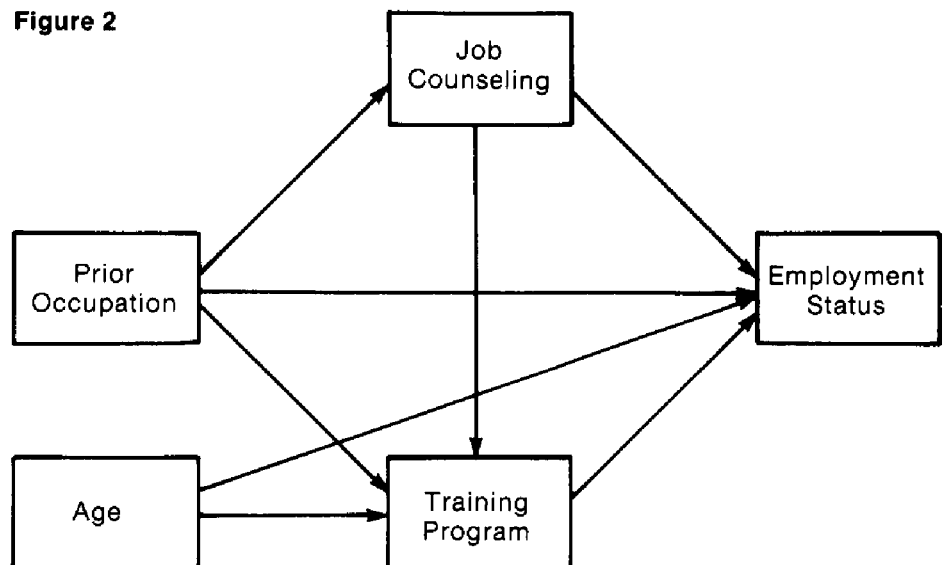
Several disciplines have developed causal-modeling methods. In 1921, geneticist Sewell Wright used path analysis in his agricultural research. With a series of publications in the 1950's, Nobel laureate Herbert Simon gave a considerable boost to similar kinds of ideas in the social sciences. Causal-modeling methods, such as linear-structural relations, causal analysis, and confirmatory analysis, have since become widely used in sociology, economics, psychology, and program evaluation. For how-to-do-it information, see PEMD's methodology transfer paper entitled "Causal Analysis."

Experimental and Quasi-Experimental Methods

Experimental methods manipulate causal factors to arrive at conclusions about cause-and-effect relationships. Quasi-experimental methods approximate the principles of manipulation, but they do not use the powerful device of random assignment.

Most of these methods begin with a cause and attempt to infer effects. The

Figure 2



usual situation is that we are interested in how a treatment (policy, program, or agent) affects people or things. We regard the treatment as a cause, and the aim is to discover its effects, if any. The difficulty in doing this is that because people or things are usually affected by multiple factors, it is necessary to isolate the effects of the treatment from other effects.

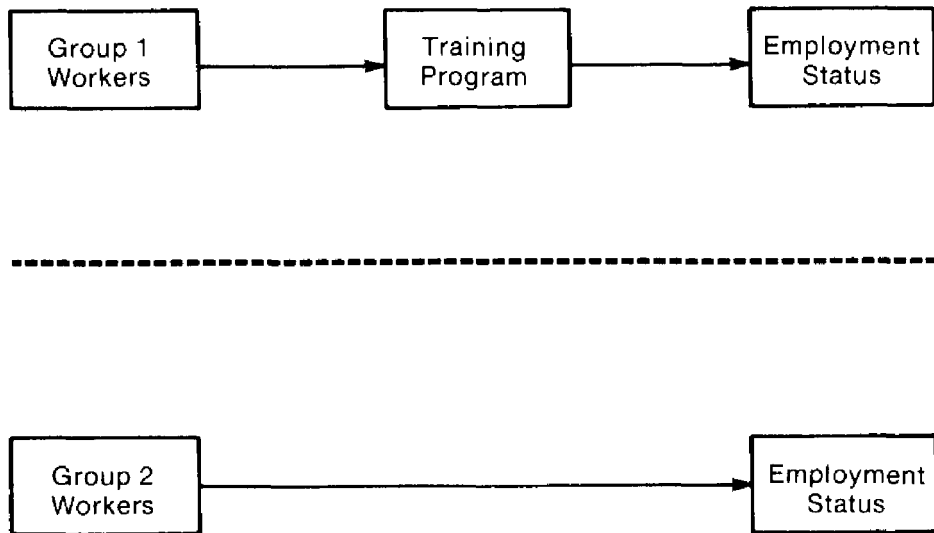
The experimental method, first championed by Sir Ronald Fisher in the 1920's, isolates effects by randomly assigning the people or things of interest to either a treatment group or a nontreatment group. The influences of most factors other than treatment are then distributed between the two groups and are canceled out when the two groups are compared in terms of effect. In an ideal situation, only the treatment accounts for any difference between the groups.

Although the experimental method is a powerful way to determine cause and effect, it will probably never be a practical approach for GAO. Quasi-experimental methods, which are more useful (though also more subject to error), employ the same logic as the experimental method and use a variety of approaches, such as nonequivalent-comparison groups and interrupted-time series, to approximate the conditions of an experiment. Donald Campbell and Julian Stanley gave major impetus to quasi-experimentation in the 1960's.

In the displaced-workers example, determination of effect could proceed by means of nonequivalent-comparison groups composed of workers who took training programs and those who did not (Fig. 3). Because the two groups are not equivalent (as they would be with random assignment), factors other than training, such as age or prior occupation, might account for any observed differences in probability of employment between the two groups. A variety of techniques is used to minimize the consequences of nonequivalence.

Experiments are used in many fields. In medicine, they are often called randomized clinical trials (RCTs). Factorial experiments, randomized blocks, and Latin squares are commonly used in agricultural research and the study of industrial processes. Quasi-experimental designs, such as nonequivalent-comparison groups and interrupted-time series, are common in evaluation; controlled clinical trials are substituted for RCTs in medicine; and case-control methods and cohort studies are frequently used in epidemiology and some other disciplines.

Figure 3



Judgment Methods

A final category of methods for determining cause and effect involves drawing directly upon the knowledge of informed individuals or groups and inferring causality from written descriptions of events. Although the procedures are, to some extent, formalized, judgment by the investigator and the informant, where applicable, plays a more obvious role than in the other methods described. Although they have a long history, judgment methods are, in general, newer and less well-developed than the other methods.

Researchers use several methods to acquire and analyze the causal beliefs of individuals. In the study of organizations, a technique known as cause mapping is used to elicit individuals' views and combine the results into overall statements about cause.

Methods called focus groups and small-group conferencing have emerged from marketing analysis. These methods use the dynamics of group interchange to converge on causal propositions. Other group techniques such as consensus development, nominal-group technique, and the Delphi technique might be adapted to deal with cause-and-effect issues.

Political scientists have developed a method called cognitive mapping that they use to analyze assertions about causal relationships. Researchers construct maps either from information obtained from interviews and questionnaires or from document analysis.

The judgment methods are clearly in a different vein from the other three approaches. In dealing with informants, personal or documentary, the judgment methods are one step re-

moved from direct evidence about causality. However, there seem to be circumstances in which judgment methods are the best choice.

We end this tour of causal methods with an observation Sherlock Holmes made during the *Adventure of the Beryl Coronet*: "It is an old maxim of mine that when you have excluded the impossible, whatever remains, however improbable, must be the truth."

Where To Look for More Information

Informal Methods

- Ackoff, R.L. *The Art of Problem Solving*. Wiley, 1978.
- Denzin, N.K. *The Research Act*. McGraw-Hill, 1978.
- Kepner, C.H., and B.B. Tregoe. *The Rational Manager*, 2nd ed. Kepner-Tregoe, Inc., 1976.
- Manning, P.K. "Analytic Induction," *Handbook of Social Science Methods*, Vol. II, ed. R.B. Smith and P.K. Manning. Ballinger, 1982.
- Miles, M.B. and A.M. Huberman. *Qualitative Data Analysis*. Sage, 1984.
- Yin, R.K. *Case Study Research*. Sage, 1984.

Causal-Modeling Methods

- Asher, H.B. *Causal Modeling*. Sage, 1976.
- Hellevik, O. *Introduction to Causal Analysis*. George Allen and Unwin, 1984.
- James, L.R., Mulsak, S.A., and J.M. Brett. *Causal Analysis*. Sage, 1982.

See Topics, pg. 57



Gene L. Dodaro



J. William Gadsby

Mr. Dodaro, an associate director for management studies and Financial Integrity Act work in the General Government Division, joined GAO in 1973. Most recently, he has been codirector of GAO's work on block-grant programs. Mr. Gadsby, an associate director for management studies, financial integrity, and intergovernmental relations in the Human Resources Division, joined GAO in 1963. From 1982 to 1984 he served as codirector of GAO's office-wide study on block-grant implementation. See "GAO Staff Changes" on p. 39 for more complete biographies of the authors.

Teamwork Counts: GAO Reviews Block Grants

Few domestic program changes have been watched with as much interest as have those that changed the structure of the funding mechanism for billions of dollars in federal spending from categorical to broad-based block grants. The Omnibus Budget Reconciliation Act of 1981 began an era of new relationships between the federal and state governments by changing from many narrowly focused grants to nine block grants in social services; low-income home energy assistance; alcohol, drug abuse, and mental health services; community services; maternal and child health services; preventive health and health services; and education. With the change, much of the control and accountability shifted from federal to state governments.

To help the Congress evaluate the progress and impact of these shifts, GAO undertook one of the largest reviews in its history. Between October 1982 and April 1985, GAO assessed the implementation of eight of the block grants created by the 1981 act. GAO's block-grant study clearly helped the Congress assess the first few years in this new era of domestic assistance. In the process, GAO gained recognition as a leading source of information on block-grant issues. GAO can be expected to be a key participant in future congressional debates on block grants as well as other federalism initiatives. This article describes the innovative assignment-management practices used during this review and provides insights into the effects of the act.

An Exercise in Group Dynamics

From its inception, the block-grant project was the work of many hands. An interdivisional working group with representatives from the Human Resources Division (HRD); the General Government Division (GGD); the Resources, Community, and Economic Development Division (RCED); the Program Evaluation and Methodology Division (PEMD); the Accounting and Financial Management Division (AFMD); and the Office of the General Counsel (OGC) developed a strategy to

consolidate 19 assignments and respond to several congressional requests. This strategy outlined the key questions and issues to be addressed, the approach to be used, and the organizational structure to manage the project.

A matrix organizational scheme was used in which eight "block-grant leaders" and seven "issue leaders" were responsible for each program and certain cross-cutting topics, respectively. The issue leaders were selected from HRD, GGD, PEMD, and AFMD to take advantage of their functional expertise while block leaders came from RCED and HRD because of their program knowledge. In addition to creating the right mix of skills, this matrix structure enabled us to report on each program as well as on certain key issues that applied to all the block grants.

Two other aspects of our organizational arrangement were equally critical to the success of the effort: the design team and the regional structure. A team of PEMD design experts worked as an integral part of the project to help develop the methodology and a variety of data collection instruments. This arrangement was crucial because of the complex methodology required by the project's large size and unique reporting strategy.

The 12 regions applied an innovative project management structure. Each selected a senior staff member as the focal point for communicating with the project directors during various conferences and weekly conference calls. They also managed the work of the teams sent to each state to cover all the block-grant programs. This led to the timely and effective completion of several months' field work and created an atmosphere in which the focal points and regional teams made invaluable contributions to the overall planning and managing of the project.

States Adapt to New Role

The first 2 years of block-grant implementation proceeded relatively

smoothly because of the 13 states' prior experience with many of the categorical programs. This involvement provided an administrative framework for absorbing the states' new responsibilities with little organizational change. Although reduced federal funding generally accompanied the block grants, the continuing availability of categorical funds, the supplemental monies from the federal emergency jobs legislation, and the ability to transfer funds among certain blocks helped promote fiscal stability in most programs. States also used their own funds to help offset certain federal funding cuts.

As the 13 states considered how to spend block-grant funds, they used the federally mandated legislative hearings and comment process to obtain public input. They often initiated executive branch hearings and set up advisory committees, relying heavily on the latter for decision-making purposes. States' efforts to obtain public input were extensive; however, interest groups had mixed views about these efforts. Also, in making their initial program decisions, states generally emphasized program continuity, although funding patterns did begin to change as states established their own priorities and sought to cope with funding limitations. The program changes varied widely among block grants, affecting both funding levels and service-provider operations.

As block-grant implementation proceeded, the 13 states reported widespread management improvements. These improvements involved reduced time and effort to prepare applications and reports and simplified or standardized administrative procedures.

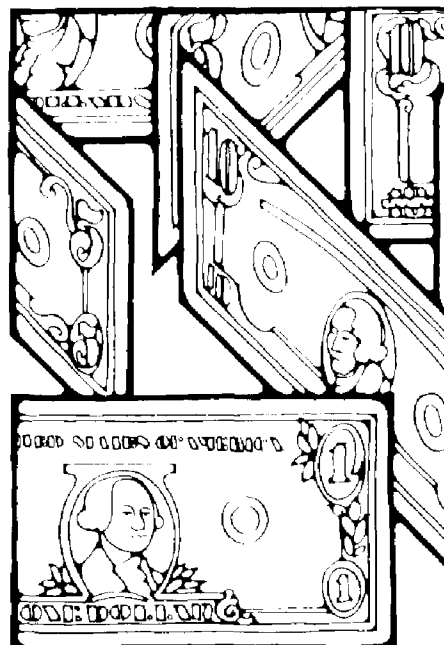
Greater reliance was placed on state procedures than on federal efforts to oversee block-grant expenditures. However, interest groups held mixed views regarding states' procedures and program decisions, and federal efforts have not looked at the adequacy of state systems and procedures. Therefore, it will be necessary to periodically assess how well states are ensuring program accountability.

GAO's Role During Reauthorization Proceedings

GAO's work enabled it to be the key source of information on block-grant implementation and a major participant in the legislative reauthorization process. In addition to providing authorizing committees with our

reports, GAO testified at four hearings for each of the three block grants scheduled for reauthorization in 1984: Preventive Health and Health Services (PHHS); Alcohol, Drug Abuse, and Mental Health (ADAMH); and Low-Income Home Energy Assistance (LIHEA). In addition, although the Maternal and Child Health (MCH) block grant was not slated for reauthorization in 1984, GAO's report prompted the Senate Committee on Finance, Subcommittee on Health, to hold a hearing on block-grant implementation on June 20, 1984. GAO testified as lead witness, and other participants included representatives from the Department of Health and Human Services, the Children's Defense Fund, the Urban Institute, the American Academy of Pediatrics, and various state and local health departments and organizations.

In addition to testifying, GAO conducted numerous briefings for staffs of various committees and individual members. These briefings provided timely information that was useful in considering pending legislation. We also provided comments on several pieces of legislation concerning suggested language for audits of block grants.



Work Influenced Congressional Actions

GAO's block-grant work was often cited as having been instrumental in congressional decisionmaking and legislative actions. The following examples highlight GAO's impact:

- The Senate Committee report

(98-393) on legislation to reauthorize the Preventive Health and Health Services block grant contained numerous references to GAO's work and discussed several proposed changes based on our findings, including repeal of the requirement for states to fund hypertension services at specified levels. The Committee said that GAO's work was most important because it provided the only comprehensive picture available. The Committee staff also said that GAO's work led to its decisions to propose eliminating the prohibition on using funds for purchasing emergency medical services equipment and to strengthen data collection requirements.

- GAO's ADAMH work helped ensure that the block-grant concept was continued, and it influenced congressional decisions regarding the need for legislative provisions to protect certain programs and groups.
- GAO's work on LIHEA was of considerable value in developing legislative proposals to change the program's eligibility criteria and carry-over/transfer authority as well as to require funding reserves for crisis assistance.
- GAO's Community Services and Education block-grant reports were used in deliberations on various amendments to change states' funding authority and flexibility.
- GAO's reports were also cited in debates concerning whether or not to create several new categorical preventive health programs covered by the PHHS and MCH block grants.

Also, at a hearing held on February 21, 1985, the Chairman of the Senate Budget Committee made the following statement when opening a hearing on proposed budget cuts to state and local governments.

A series of GAO studies found that the block grants created by the Omnibus Reconciliation Act of 1981 have accomplished what the Congress intended. States are able to spend less time and effort preparing applications and reports while having greater control over program priorities and the use of funds. Again, those who predicted disaster were wrong.

Future Work Plans

As block grants continue to evolve, GAO intends to regularly (1) assess the effects of some block grants on people served; (2) review state mechanisms for accountability, including monitor-

See *Block Grants*, pg. 57



David B. Pariser

Mr. Pariser, a senior evaluator with the Resources, Community, and Economic Development Division, joined GAO in 1976. He previously worked at the Department of Transportation and the Washington Center for the Study of Services as an economist, and at the University of North Dakota as an economics professor. He received a B.S. degree in business and economics from West Virginia University and M.S. and Ph.D. degrees in economics from Southern Illinois University. Mr. Pariser is a certified public accountant in the District of Columbia. He is also an adjunct professor of business economics and finance at the University of the District of Columbia. He is a member of the American Institute of Certified Public Accountants, the D.C. Institute of Certified Public Accountants, the Institute of Cost Analysis, the Federation of Financial Analysts, and the American Economic Association. Mr. Pariser has received two awards for his work at GAO: a Certificate of Merit in 1979 and a Special Commendation in 1984.

Introduction

In recent years, GAO has published several reports evaluating the Department of the Interior's programs for leasing publicly owned coal lands to private mining companies for development.¹ These reports have played an important role in providing the Congress and the public with detailed analyses of certain Interior Department regulations and procedures for carrying out the laws governing the management of federal coal lands.

This article discusses work that evaluates a particular part of Interior's coal-leasing framework—the emergency federal coal-leasing program—designed to meet the needs of existing

Emergency Federal Coal Leasing: A Program in Need of Statutory Direction

coal operators, under noncompetitive circumstances, for additional amounts of federal coal. Basically, the message of the report was that a conflict exists between the current law, which requires Interior to lease federal coal competitively and not to accept any bids at less than fair-market value, and the practice of emergency leasing. That is, the law makes no distinction between leasing federal coal to encourage the development of new competitive mining operations and leasing to meet the "emergency" needs of existing coal operators. The former type of leasing is essentially competitive, as envisioned by the law, while the latter is noncompetitive and not covered under the law. The report analyzes difficulties Interior has encountered in undertaking emergency leasing within the existing statutory framework and recommends appropriate legislation to cover emergency leasing. During the first session of the 99th Congress, bills were introduced containing provisions similar to those GAO recommended.

The Importance of Federal Coal

Federal coal plays an important role as a significant portion of the United States' known coal reserves and a source of energy for electric utilities and other industrial coal users. Statistics show that federal lands contain about 60 percent of western coal reserves and an estimated 30 percent of total domestic coal reserves. In addition, the federal government influences about 20 percent of nonfederal western coal because many of the western coal areas are characterized by intermingled ownership patterns.

Coal production from federal lands has increased from 12 million tons in 1970 to about 104.1 million tons in 1984, accounting for 41 percent of western coal production in 1984 and about 12 percent of that year's total United States coal production. Of the 628 federal coal leases outstanding in

1984, 118 were producing coal. Moreover, in 1984, Interior collected federal coal royalties amounting to about \$57.8 million. An early 1985 Interior forecast predicted that western coal production will increase through 1990 and beyond.² The forecast indicated that western coal production could reach between 300 and 340 million tons by 1990, an 18- to 34-percent increase over the region's 1984 production of 253.7 million tons.

The Congress' Role in Federal Coal Leasing

In 1976, the Congress enacted the Federal Coal-Leasing Amendments Act to remedy several concerns and abuses stemming from the vagueness of the Mineral Lands-Leasing Act of 1920. Some of these concerns arose from Interior's past practices, such as leasing federal coal lands at low prices without obtaining competitive bidding, leasing in areas without conducting adequate assessments of the environmental impacts associated with coal production, and failing to recognize and deal with a large number of nonproducing federal coal leases, many of which were obtained and held for speculative reasons.

In seeking to resolve these concerns, the Congress eliminated Interior's authority to issue noncompetitive coal leases by requiring that all new coal leases be issued through competitive bidding at prices not less than fair-market value. In addition, the Congress mandated that comprehensive land-use plans be prepared before new federal coal leases are issued,

¹A list of GAO reports on federal coal leasing appears at the end of the article.

²"Draft Environmental Impact Supplement for the Federal Coal Management Program," U.S. Department of the Interior, Bureau of Land Management, February 1985, p. 90.

strengthened the requirements for diligent development, and required leaseholders to pay a minimum royalty on production and an annual rental fee for each acre leased.

Competitive Bidding and Noncompetitive Emergency Leasing

Current law requires the secretary of the Interior to award federal coal leases through auction-type bidding (i.e., competitive bidding). However, Interior has a special program for holding lease sales for relatively small parcels of coal lands that are of interest to only one company and for which that company can demonstrate an "emergency" need. Since these parcels of land are usually of no interest to other coal companies, competitive bidding is unlikely.

Since 1973, when Interior first implemented an emergency-leasing program, 57 emergency federal coal leases have been offered at public auctions, all but six of these since the enactment of the Federal Coal-Leasing Amendments Act of 1976. Of the 51 emergency lease sales conducted since the passage of this act, 44 resulted in the issuance of leases.³

The Bureau of Land Management estimates that over the next several years at least 26 emergency coal leases could be issued to maintain production at existing mines.⁴ The Bureau also notes that, besides the inefficiencies and hardships associated with premature closing of active mines, other unwanted side effects might include a shift of coal mining to previously undeveloped locations and the need for new mining facilities, roads, housing, and public services.

Interior's regulations allow emergency leasing to take place in only two kinds of situations: bypass and production maintenance. The first situation occurs when an existing mining operator "mines around" (or bypasses) small parcels of unleased federal coal lands, making it uneconomical for that or any other company to recover the coal later. Thus, the coal bypassed by the mining operation is wasted, and royalty and rental revenues to federal and state governments are lost. The other situation—production maintenance—occurs when a producing company needs additional federal coal to maintain a mine's current production level or to supply coal under an existing contract with electric utilities and other coal users. Not leasing a parcel of coal land in such a situation could reduce mining operations and possibly

result in worker layoffs.

Of the 44 emergency leases issued through mid-1985, about half were issued under bypass situations while the other half were issued under production-maintenance situations. Forty were leased at public auctions attracting one bidder, the operator requesting the lease sale.⁵ The remaining four attracted two bidders. When considering Interior's restrictive emergency-leasing regulations, this is not surprising. For example, the regulations require that

- the coal reserves applied for be mined as part of an existing mining operation that is producing coal at the time of application;
- the coal be needed to avoid a bypass situation—in which event the coal must be mined within 3 years of the application—or to maintain an existing mine at its current production level; and
- the amount of coal leased not exceed 8 years of recoverable reserves, as based on the applicant's production record.

Difficulties With Emergency Leasing

In conducting its evaluation of Interior's emergency coal-leasing program, GAO identified and evaluated four difficulties Interior was encountering in carrying out the program within the existing statutory framework governing federal coal leasing.

(1) Interior's emergency-leasing regulations, which were designed to avoid abuses of the emergency-leasing process, require applicants to show a legitimate need for the coal but limit such leasing to situations where competitive bidding is unlikely to occur.

(2) Interior has not established lease terms and conditions consistent with emergency-leasing situations. Therefore, there may be a need for a statutory requirement that Interior safeguard against abuses.

(3) Although emergency leases may have substantial economic value to the operator requesting the lease sale, they are of little or no interest to other coal producers, and their competitive value on the open market is low.

(4) In view of the noncompetitive features of emergency lease tracts, competitive bidding procedures do not ensure that the government will obtain a reasonable value for the coal. Thus, it is questionable whether the regulations and the emergency-leasing process comply with the statutory requirement that leases be issued on the basis of competitive bidding. What is

brought into question is the legality of a procedure that permits bidding by any otherwise qualified bidder but limits leasing to situations in which the applicant has such a clear economic and competitive advantage over other bidders that the competitive bid process becomes illusory.

Need for Legislation

A special process for leasing federal coal to meet the unique needs of existing mining operations has been generally accepted by the courts, the Department of the Interior, and the Congress as being in the public interest. However, existing law does not provide the necessary flexibility to enable Interior to conduct emergency coal leasing in a manner that is appropriate for the circumstances.

GAO's report found a need for corrective legislation to provide a proper framework within which emergency coal leasing could be administered effectively. Such legislation could both authorize the secretary of the Interior to issue emergency coal leases through negotiated lease-sale procedures and include appropriate controls to minimize the noncompetitive leasing of coal tracts that otherwise might be of competitive interest.

Hearings on bills that would amend existing coal-leasing legislation in several ways, including authorizing the secretary of the Interior to negotiate lease-sale procedures, were held in the House in early June. Senate hearings are expected later this year.⁶ Congressional staff have indicated that previously issued GAO reports, such

³In three of the remaining seven emergency lease sales, the applicants or other parties did not bid on the tracts. In three others, the Bureau rejected the applicants' bids on the grounds that they were less than fair-market value. The remaining lease sale did not result in a lease issuance because the only bidder, the applicant, refused to accept the lease since the sale was delayed and federal coal bypassed.

⁴*Ibid.*, p. 58.

⁵In each of these four cases, however, the applicant requesting the lease sale was the winning bidder and obtained the proposed lease tract.

⁶Three bills are currently before the Congress that would authorize the secretary to use negotiated lease-sale procedures. (See "Legislative Developments," p. 37.)

The Appeal Board set up in the subcommittee reported bill caused a fair amount of concern. For that reason, I am proposing an amendment, which I have worked out with GAO, to establish an appeals board made up of individuals experienced in the arbitration and adjudication of employee appeals matters. The Board would be independent of the control of the Comptroller General and would have the power to order the Comptroller General to take corrective action. The Chair of the Board would appoint the General Counsel who would serve the Board and not the Comptroller General. I believe this amendment serves the twin objectives of independence [for the Board] from the Comptroller General and independence [for GAO] from the executive branch. Chairperson Patricia Schroeder, House Subcommittee on Civil Service, September 1979

These comments by Congresswoman Schroeder, emphasizing the intentions behind the passage of the GAO Personnel Act and the creation of the GAO Personnel Appeals Board (PAB), signaled the close of more than 1 year of congressional debate on establishing a separate personnel system for GAO. As the subsequent House report stated, the creation of the Personnel Appeals Board was the "cornerstone" of the GAO Personnel Act of 1980.

The Board is 5 years old as of October 1, 1985. Since its inception, the Board has established an employee appeals procedure, heard and decided a wide range of employee appeals, defined its statutory role in overseeing the agency's Equal Employment Opportunity Program, and conducted EEO oversight reviews of the agency. This article reviews the history of the Board and some of its activities during the first 5 years of its existence.

Need for a Separate Personnel System

For some time prior to January 1979, GAO officials had been suggesting to congressional leaders that it was incongruous for GAO's budget to be exempt from executive branch review while the agency's personnel actions were subject to control and direction by the executive branch's Civil Service Commission. On January 11, 1979, the Civil Service Reform Act took effect. As a result of its enactment and the intense congressional interest in its im-

GAO's Personnel Appeals Board: A History and Profile

plementation, GAO committed increased time and resources to virtually all aspects of personnel management in the executive branch.

In July 1979, then-Comptroller General Staats advised the House Subcommittee on Civil Service that most of GAO's criticism of executive branch personnel management had been directed at the agencies having primary responsibility for government-wide personnel management programs: the Merit Systems Protection Board, the Equal Employment Opportunity Commission, the Federal Labor Relations Authority, and the Office of Personnel Management. Noting that GAO's increased evaluation responsibilities for these agencies also increased the potential for a conflict of interest between them and GAO, Mr. Staats spoke in support of legislation designed to avoid this possibility. The proposed legislation would exempt GAO from executive branch-administered laws and regulations relating to personnel matters and allow GAO to establish its own independent personnel system.

Proposal for an Independent Board

Although there was substantial consensus that GAO should have its own personnel system, a primary concern during the hearings was the need to ensure that such a separate agency personnel system would provide adequate safeguards for the rights of employees and applicants for employment.

It was Mr. Staats, during House subcommittee hearings, who first suggested statutory language that would create an

independent Appeals Board in the General Accounting Office to replace the jurisdiction of the Merit Systems Protection Board, the Equal Employment Opportunity Commission, the Office of Personnel Management, or any other administrative authority outside the General Accounting Office.

According to his proposal, "The deci-

sions of the Appeals Board would be final and binding on the General Accounting Office." In the following months, Chairperson Schroeder and the subcommittee staff expanded upon this suggestion and developed what was to become the statutory basis in the GAO Personnel Act of 1980 for the present Personnel Appeals Board.

Statutory Independence of the Board

Establishing a statutory process that would ensure an independent adjudicatory body posed a considerable challenge to the legislators. The most fundamental problem was how to create an adjudicatory system within the agency that was not controlled either in appearance or in fact by agency management. Central to this problem are the appointment, tenure, and reappointment of the Board members and the Board's general counsel. The statutory provision developed by Chairperson Schroeder and her subcommittee staff dealt with each of these issues.

The statute provides the Comptroller General authority to select and appoint the five Board members. Obviously, such authority, by itself, would severely detract from the desired result of an independent Board. Therefore, three unique features were built into the selection procedure. First, the selection process begins with the submission of nominees "from organizations composed primarily of individuals experienced in adjudicating or arbitrating personnel matters," such as the Federal Mediation and Conciliation Service and the American Arbitration Association. This ensures that the nominees are people whose professional reputations are based upon their neutrality and their experience in adjudicating employee-management disputes. The statute provides a further check on the Comptroller General's appointment authority by requiring consultation with employee-group representatives and certain members of the Congress before mak-

ing any Board member appointments. Finally, current and former employees of GAO are specifically prohibited from being considered for Board positions.

The statute provides that once a member is appointed, the Comptroller General has no authority to remove that member. A member can only be removed by a majority of the other members and only as a result of inefficiency, neglect of duty, or malfeasance in office. The statute also requires that Board members serve nonrenewable, fixed terms intended to avoid even the appearance of impropriety. The first five members served staggered terms of 1, 2, and 3 years. Subsequent members are to serve 3-year terms.

The Comptroller General is limited to the purely ministerial function of affirming whomever is appointed as PAB general counsel by the chairperson of the Board. The statute also makes it clear that the PAB general counsel serves at the pleasure of the chairperson.

Board Independence Reinforced Outside the Statute

The efforts to create the appearance, as well as the fact, of an independent Board did not cease with the passage of the GAO Personnel Act. GAO and the Board have taken steps independently and cooperatively to further ensure the Board's independent nature.

For example, as the Board began to hire its staff, including the general counsel, it made a conscious decision not to employ or consider for employment anyone who was a GAO employee. In this way, there could be no suggestion that anyone or any group had a "pipeline" to the Board through its staff.

After the selection of Board members in 1980, the agency modified the selection procedure to increase the involvement of employee groups in the process and, as a result, to reinforce the independent nature of the Board. In the process used since 1981, the employee-group representatives are actively involved in screening applications, selecting candidates to be interviewed, conducting interviews, and, ultimately, selecting the Board members.

One of the early concerns of the Board, the agency, and employee-group representatives was that there be neither the opportunity nor the appearance of opportunity for the agency to use its control of the Board's budget to influence or to appear to influence

Board decisions. To address this problem, GAO and the Board entered into a memorandum of understanding in March 1982 that authorizes the Board, subject only to congressional budgetary constraints, to control the appointment and compensation of its staff and to procure the goods and services necessary for its operation. In such matters, the Board is subject to federal government laws and regulations. However, any allowable exceptions that would normally be referred to the Comptroller General for approval within GAO are made by the Board chairperson.

Another issue relating to the appearance of an independent Board involved the location of the Board's offices. The question was whether locating the Board's offices inside the GAO headquarters building would detract from the independent nature of the Board. The concern for independence was tempered by the fact that most GAO employees work in the District of Columbia metropolitan area, and many work in the headquarters building. After a long search for sites that would meet the needs of proximity to the headquarters building and the appearance of independence from the agency, the Board moved out of GAO headquarters in late October 1984. The new offices are in the Academy Building, located next to the GAO building, on Fifth Street NW.

Thus, for more than half a decade, considerable effort has been expended in the attempt to establish an independent personnel adjudicatory system at GAO. One measure of the success of that effort is that a Federal Court of Appeals has recognized the right of both agencies to sue one another in federal court (see *General Accounting Office v. GAO Personnel Appeals Board*, 698 F.2d 516 (D.C. cir. 1983)).

Subjects Within PAB's Jurisdiction

In the GAO Personnel Act, the Congress defined the issues that the Board is allowed to adjudicate. They may be divided into four categories:

1. Equal employment opportunity complaints.
2. Management actions against employees (e.g., suspensions of more than 14 days, reductions-in-grade, removals, and within-grade increase denials).
3. Prohibited personnel practices.
4. Unfair labor practices and other labor-management issues.

An appeal arising from one of these

four categories may be brought to the Board by a GAO employee or by an applicant for GAO employment. Employees or candidates who raise EEO complaints, however, must go through GAO's complaint process before appealing to the Board.

From its inception in October 1980 until March 1985, the Board has received 53 employee appeals. Over one half of those appeals have involved EEO allegations (30 cases or 56.6 percent). The next largest category is management actions against employees (13 cases or 24.5 percent), and almost as many appeals have alleged prohibited personnel practices (10 cases or 18.9 percent). There are no recognized unions in GAO, and there has been no union activity; consequently, there have been no appeals in the fourth category.

Role of the PAB General Counsel

When an employee appeals to the Board, the matter is first investigated by the PAB general counsel. At the conclusion of the investigation, the general counsel may encourage the parties to settle the dispute. If no settlement occurs, a "Right to Appeal Letter" is issued notifying the employee, GAO management, and the Board that the investigative phase has been completed.

The employee also receives, at the same time, the "Report and Recommendations of the General Counsel." This report is a privileged communication between the general counsel and the employee. Neither agency management nor the Board has an opportunity to see it. The "Report and Recommendations" provides the employee with a discussion of the legal and factual basis of the appeal from the point of view of a neutral individual and advises the employee as to whether the PAB general counsel believes that the employee's case has merit. This report is intended to assist the employee in evaluating the merits of the case. Upon receipt of the "Report and Recommendations," the employee has 20 days in which to evaluate it and decide whether to pursue the appeal to the Board.

When the PAB general counsel determines that there is reasonable evidence to believe that the employee's rights under the act have been violated, the general counsel offers to represent the employee before the Board. (The employee may or may not elect to be represented.) On the other hand, when the PAB general



Edward Gallas, former PAB chairperson (L), and Janice Willis, PAB deputy general counsel.



Mr. Gallas (L) and Dr. James Brown, Board member.



From left to right, Milton Socolar, Special Assistant to the Comptroller General; Mr. Gallas; and Dr. Bowers, past chairperson.



From left to right, Carl Moore, PAB general counsel; William Dempster, GAO attorney; and Dr. Brown.

counsel determines that there is not reasonable evidence to believe that the employee's rights under the act have been violated, then the employee is advised that he or she may appeal to the Board individually or with the assistance of private counsel.

During the first 4 years of operation, 29 percent of the employees who appealed for relief elected not to pursue their cases before the Board following the report from the general counsel (13 cases). Another 12 percent (six cases) of employee appeals were settled by the agency and the employee during the general counsel's investigation. Thus, under the Board's process, adversarial litigation has been avoided in more than 40 percent of the cases originally filed.

Appealing to the Board

When an employee decides, after reviewing the "Report and Recommendations," to pursue an appeal to the Board, a Board member is appointed by the chairperson to hear and decide the case. This Board member issues a decision that becomes final unless the Board, the employee, or GAO management requests that it be reconsidered by the full Board. Review by the full Board is limited to considering new and material evidence and evaluating whether the decision was based on an erroneous interpretation of a statute or regulation. Most final decisions of the Board can be appealed to the federal courts.

In more than one third of the cases that have gone to the Board, the PAB general counsel represented the employee (10 cases or 38.4 percent). As of April 1985, the Board had issued 15 decisions that dealt with the substance of an employee's appeal or complaint. In seven of those 15 decisions, the employee received—in whole or in part—the remedy that was requested. In four of the successful employee actions, the general counsel represented the employee.

Protecting the Merit System

The general counsel may be involved in a case under two other circumstances. The general counsel may intervene in an employee's case before the Board for the purpose of representing the public's interest in one or more issues in a case. Ordinarily, this occurs when the interpretation of a civil service law, rule, or regulation is at stake. For example, in 1984, an employee's case before the Board raised two

issues that were addressed by the PAB general counsel. One question was whether a violation of the GAO Order on position classification constituted a prohibited personnel practice. The other issue was whether retroactive promotion and back pay were proper remedies for an employee whose position had been improperly classified at a lower grade level.

The second circumstance occurs if information comes to the attention of the general counsel suggesting that a prohibited personnel practice has occurred, is occurring, or will occur. The general counsel may then investigate the matter even though an employee appeal or complaint has not been filed. If the general counsel finds insufficient evidence of a prohibited personnel practice, a report is prepared closing the investigation. The report is sent to the individual who brought the issue to the attention of the general counsel and to GAO management. If the general counsel finds evidence of a prohibited personnel practice, a report with recommended corrective action is provided to the agency. If GAO does not take the necessary corrective action, the general counsel may petition the Board to order corrective action.

EEO Oversight

The GAO Personnel Act gives the Comptroller General responsibility for administering GAO's EEO program and delegates oversight responsibility to the Board. However, the law does not define the distinction between administration and oversight, and the legislative history does not address the scope and nature of oversight.

The PAB general counsel has issued two EEO oversight reports, one in fiscal year 1982 and another early in fiscal year 1983. Later in fiscal year 1983, the Board invited management and employee groups to participate in a task force to review these oversight efforts, offer recommendations to improve the process, and define the scope of EEO oversight. The task force reached a consensus that was adopted in a Board policy statement dated September 1, 1983. As a result, affected employee groups are consulted during an oversight review, and they participate in the planning of each review.

The first oversight review conducted pursuant to this policy statement began in May 1984, and the final report was issued in June 1985. According to the plan, this first agency-wide oversight review gathered and analyzed data on the agency promotion process, the incentive awards program, the

Senior Executive Service rank and bonus awards program, the development and implementation of a multiyear affirmative action plan, the problem of sexual harassment, the handicapped program, the guidance provided to EEO counselors, and agency disciplinary actions.

According to the EEO policy statement, there were two objectives in establishing this data base. The long-range objective was to establish a base of information by which the agency's progress on a wide range of EEO-related issues could be measured in coming years. The immediate objective was to allow, where feasible, analysis and evaluation of policies and practices that relate to equal employment opportunity in order both to identify the degree to which they promote equal employment opportunity and to make recommendations for their improvement. Therefore, for some issues, the review only reported the data provided by the agency for future reference. For other issues, the review reported, analyzed, and evaluated the data and, where appropriate, made recommendations.

Conclusion

It has been a complex task to create within an agency an independent adjudicatory body to review and adjudicate that agency's personnel actions. This task was further complicated by the fact that the duties and responsibilities of a half dozen executive branch personnel-related agencies were consolidated under PAB and its general counsel. As a result, the Board resembles its sister adjudicatory and enforcement agencies, but is not identical to any of them. In short, the Board is a unique creation of the Congress.

GAO's Personnel Appeals Board

Past Board Members

- Board Chairperson *Edward C. Gallas* served for the first 3 years of the Board's existence. A former chief administrator for one of the largest court systems in the United States, coauthor of the premier text on court management, and member of the Board of Trustees of the Institute of Court Management, Mr. Gallas is an internationally recognized authority on the subject of judicial management.
 - *Ruthie L. Taylor* is now a director of the National Bar Association.
 - *Robert H. Levan* is a former assistant deputy general counsel at the National Labor Relations Board.
 - *William J. Meagher* was formerly an executive with the Federal Mediation and Conciliation Service.
 - *Ellen M. Bussey* is a private consultant on labor and economic matters to various international organizations and national government agencies.
 - *Robert T. Simmelkjaer* is associate dean at the City University of New York and director of its Labor Management Institute.
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Recent Board Members*

- Board chairperson during fiscal year 1985, *Mollie H. Bowers* holds a Ph.D. from Cornell University's School of Industrial and Labor Relations and is a professor at the University of Baltimore. She has 10 years' experience in academic settings, 12 years' involvement in labor-management training, and an additional 10 years' experience as an arbitrator, mediator, and fact-finder. Dr. Bowers was national president of the Society of Professionals in Dispute Resolution (1982-83) and is a member of the National Academy of Arbitrators.
 - *Jerome H. Ross*, a former Board chairperson, is currently a private arbitrator and mediator. He has served as director of preventive mediation with the Federal Mediation and Conciliation Service and as chairman of the Federal Prevailing Rate Advisory Committee. He is a member of the National Academy of Arbitrators.
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Current Board Members**

- *Charles Feigenbaum* holds a master of arts degree from Cornell University's School of Industrial and Labor Relations and has taught public- and private-sector labor relations at the University of Maryland. He is a full-time arbitrator currently serving as national president for the Society of Federal Labor Relations Professionals.
 - *Ira F. Jaffee*, formerly a member of a law firm specializing in labor law, is a full-time, private arbitrator and an adjunct professor of law at the National Law Center, George Washington University.
 - *James M. Brown* has served as a senior management analyst directing programs in various federal agencies including, most recently, the Department of Energy. During his years of federal employment, he was actively involved in dispute resolution, especially in EEO cases. Since his retirement from the federal government in 1981, Dr. Brown has been involved in the resolution of equal employment opportunity and labor arbitration cases.
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• *Carl Moore* is general counsel for the GAO Personnel Appeals Board. Mr. Moore began his work in labor law in the Republic of the Philippines, where he served as a judge advocate with the U.S. Navy. He has worked as executive director and general counsel for the Overseas Education Association/NEA; deputy director for civilian personnel law, Department of the Navy; and counsel for civilian personnel law to the chief of naval operations. Mr. Moore received a B.A. degree from Texas Tech University and a J.D. from the University of Texas School of Law. He has done graduate work in comparative law at the University of Bern in Switzerland and is a member of Phi Delta Phi, a national honorary legal fraternity. Mr. Moore, a founding editor of the *Federal Sector Labor Relations Review*, is an instructor on federal personnel matters at the Legal Education Institute of the Department of Justice.

* The Tenure of Dr. Bowers and Mr. Ross expired on September 30, 1985. Mr. Jaffee is the current chairperson.

** The two new members, Jesse James, Jr., and Jonathan E. Kaufmann, were appointed October 1, 1985. Press deadlines precluded including their biographies.



Andrew F. Finkel

Mr. Finkel, an evaluator in the Resources, Community, and Economic Development Division, has been with GAO since 1977. He holds a B.S. degree in management science from the State University of New York at Binghamton and an M.B.A. degree from the University of Maryland. He has received headquarters and regional office awards and is a winner of the Phillip Morris Marketing/Communications Competition.

At a Los Angeles Consumer Fair, The Packer (an industry trade paper) asked an extension home economist on duty at one of the booths her opinion of 'marketing orders.' She thought for a moment and finally replied, 'They're handy to have along when shopping at the supermarket.'

The Packer, August 30, 1975

Although marketing orders are not synonymous with grocery shopping lists, the bemused home economist quoted above had a good point about their usefulness at the supermarket. Marketing orders are food marketing plans that are designed by farmers and marketers in a particular industry, tailored to the industry's conditions, and run by the industry itself under the supervision of the U.S. Department of Agriculture (USDA). Once voted in by the industry and approved by the secretary of Agriculture, marketing orders are issued as federal regulations and have the force and effect of law.

The Goal of Marketing Orders

Marketing orders allow farmers to

The 'Marketing' in Marketing Orders

solve problems jointly that are too big for them to solve individually. Marketing orders were originally enacted during the Great Depression to aid financially distressed farmers (7 U.S.C. 601). The focus then was on regulating supplies to deal with farm surpluses. Amendments to the legislation since the 1940's have added goals that can also benefit the consumer by maintaining a minimum level of product quality, keeping supermarket shelves steadily supplied, and communicating product information for consumers to use in making purchase decisions.

More than half of the United States-produced fruits and nuts and about 15 percent of the vegetables available in the supermarket are covered under 47 federal marketing orders. A committee consisting of farmers, or farmers and marketers of the regulated commodities, initiates and operates each order. Some committees also include a member of the public to represent the consumer viewpoint. Committee expenses are financed by assessments on the commodities, usually in terms of cents per box, bag, or ton. USDA limits its role to providing guidance—through headquarters and field office marketing specialists—when asked, and to monitoring marketing-order operations.

Marketing orders are frequently very controversial. Their opponents contend that the orders grant monopolistic powers, restrict new-farmer entry, and could produce waste and raise food prices higher than free-market conditions would allow. Supporters defend marketing orders as efficient "least-government" approaches to maintaining equitable and orderly markets, encouraging adequate investment, and satisfying consumer needs. Supporters point out that, in contrast to high-cost, federally financed subsidies for such major United States crops as wheat or cotton, marketing orders are financed by private industry assessments on the agriculture commodities being shipped.

In light of the controversial nature of marketing orders, the public's general unawareness of them, and their financing by nongovernmental sources, GAO thought that a fresh view of marketing

orders was warranted. A GAO evaluation¹ found that a few marketing orders restrict new-farmer entry or have the potential to produce waste and higher prices, but that the actions taken by many orders can lead to more orderly markets² in the long run. Also, competitive forces appeared sufficient, in most cases, to limit price increases. In addition, GAO found that marketing orders have changed over the years. The trend has been away from marketing orders that focus on supply and toward orders that, by focusing on improving long-term demand, can benefit farmers and consumers. The trend, however, has not been apparent because most studies have been limited to evaluating the impact of supply restrictions and because USDA has no formal mechanism for measuring marketing order performance.

Marketing Orders: A Brief History

When the Congress established marketing orders during the Great Depression, the intent was to help farmers stabilize plummeting farm prices and incomes. Originally, marketing orders authorized fruit, vegetable, and nut farmers to engage in programs regulating the flow and total volume of products reaching particular markets. Under marketing orders, farmers could work together to ensure that all of a crop would not be picked and sold at once, thereby avoiding an early season glut and a late-season shortage. Orders could also ensure that low-quality products, such as immature or damaged fruit, did not enter marketing channels.

The Congress enacted marketing orders after cooperative marketing associations were unsuccessful in

¹"The Role of Marketing Orders in Establishing and Maintaining Orderly Marketing Conditions" (GAO/RCED-85-57, July 31, 1985).

²An orderly market is typically defined as one that (1) reduces fluctuations in farm and retail prices, (2) assures consumers a steady supply of quality products, and (3) keeps farm prices high enough to maintain the continued operation of most farms.

operating voluntary marketing programs. Because nonparticipants enjoyed the same benefits as voluntary program participants but avoided costs of participating (such as volume limitations on sales or quality controls), farmers found little incentive to stay in the programs. With marketing orders, however, this "free-rider problem" was solved. Once two thirds of the farmers in a production area voted for a marketing order and the secretary of Agriculture approved it, all farmers in the production area had to comply with the regulations.

In the 1940's, '50's, and '60's, the Congress expanded the marketing order concept by amending the legislation to include more consumer-oriented goals than did the early farm-stabilization programs. These changes reflected the new orientation toward assessing consumer needs and the importance of increasing market demand. Authority to control the quality of marketed products was also strengthened. Programs to encourage the research and development of products that are more acceptable to the consumer or that stimulate product sales through promotion and advertising were added as tools for farmers to use in improving order in the marketplace.



Shown are some samples of marketing-order committee promotional literature.

How Do Marketing Orders Work?

The legislation allows the commodity industries to use various quantity, quality, and market-support tools. The goal is to use the mix of tools that can best lead to orderly marketing through influencing supply and/or demand.

Quantity controls have an impact on supplies. For example, one type of quantity control—prorates—specifies the maximum quantity that may be

shipped during a stated period of time, usually 1 week. Reserve pools, another type of quantity control, reduce the supply available for sale in a primary (e.g., fresh) market by placing a portion of the crop aside to be sold when demand improves in the current or a subsequent season.

Quality controls that specify product grade, size, and maturity also affect supplies, although their major goal is to increase consumer demand by providing products of consistently predictable quality. Market-support tools, such as research and development, promotion, and advertising, attempt to influence demand through improving buyers' and sellers' knowledge of the products' availability and useability.

The GAO Perspective

GAO reviewed nine marketing orders covering 11 commodities that used a cross section of all the quantity, quality, and market-support tools. The commodities included celery, lemons, peaches, pears, plums, nectarines, almonds, hops, spearmint oil, tart cherries, and walnuts. Because marketing orders provide an alternative to government crop subsidies, our goal was to assess the benefits and shortcomings of federal marketing orders. Most of the existing analyses focus on the issue of whether marketing orders harm consumers by restricting the supply and thus raising the price of commodities controlled by the orders. We chose to examine whether all the marketing tools available to marketing-order committees, including supply-control and demand-enhancement tools, fulfill the congressional goal of creating and maintaining orderly marketing conditions. We studied trends in the use of marketing-order tools as well as their impact on farmers and consumers. We also examined the competitive nature of the environment in which marketing orders operate.

Controls Benefit Consumers

Ten of the 11 marketing order commodities we examined restrict supplies by affecting when or whether supplies are put on the market. Such activities, although restrictive by nature, are not automatically contrary to consumer interests. Some quantity and quality controls can benefit producers and consumers.

Of the marketing orders we examined, only the lemon prorate, which controls 99 percent of the market,

results in significant wastes. The other ten marketing-order commodities (although they can and have diverted some supplies) cannot effectively control prices because competition exists in domestic and world markets, thereby minimizing the effects of order-imposed restrictions. For example, the California peach marketing order covers about 36 percent of total United States peach production. Other peach production areas, some covered and some not covered by marketing orders, are significant sources of peaches and compete in the domestic market with the California peach.

Competition also exists in the hop market, although on an international scale. The number of producers of hops (a flavoring ingredient used in brewing beer) is controlled through an allotment process, similar to the way some cities control the number of liquor stores or taxicabs. We found that the hop order does restrict entry of new farmers. However, we found little evidence that the hop allotment raises prices, the major criticism of the hop marketing order. This lack of verifiable price increases probably results from the fact that domestic breweries can import hops from the world market if domestic prices rise.

In addition to competition from the same products, there is competition from substitutes for most commodities. For example, consumers can choose to substitute a nectarine, plum, or pear for a peach. Although these may not be perfect substitutes, discriminating consumers frequently switch product loyalties when they are presented with slight changes in price, quality, or other product attributes. Competition from other suppliers or substitutes acts as a check on marketing-order supply controls because competitors can take over any unfilled market niches.

Quality Standards

The trend is also moving away from using varied quality standards to control supplies, a measure frequently employed (with USDA support) 20 years ago. If quality standards rejected substandard, but wholesome, commodities that could be marketed to willing consumers, waste would result, and consumers would have to pay higher prices or do without. However, for the 11 commodities examined in the study, GAO did not find evidence that quality standards tightened when production increased, as would be expected if the goal was to lower supplies in years having large crops. Quality standards remained consistent over

time or changed to divert unsalable products to more favorable markets. For example, the California tree fruit marketing-order committee discontinued marketing small fruit sizes or scarred fruit only after market experience had shown that consumers were unwilling to purchase the lower-standard products at a price that covered the costs of shipment. The rejected fruit is either dumped, dried, marketed in noncompetitive market outlets (such as farmers' markets), used for animal feed, or donated to charitable organizations willing to pick up and transport the fruit.

In late 1984, USDA approved a quality control marketing order for California kiwi fruit. At the public hearing prior to the order's approval, some industry representatives indicated that the committee intended to keep "imperfect, flattened" fruit off the market because the less-appealing fruit would drag down prices. However, at the same hearing, another industry member testified that she had successfully marketed flattened fruit, which is just as wholesome as normal-shaped (oval) fruit, at a lower but still profitable price. If a market indeed exists for such substandard but wholesome fruit, rejecting the flattened kiwis could be overly restrictive.

Consumers Gain Information

When shoppers enter the supermarket, they are confronted with thousands of products for sale. To make wise, cost-effective decisions, they need information on what those products have to offer. A marketing order, when focused on demand-enhancing quality and market-support tools, gives the consumer information needed to make an educated purchase decision.

Through research and development, marketing-order committees can discover the attributes consumers desire and develop product varieties or new products to match those desires. Effective promotion in magazine articles and grocery store flyers can reduce purchasers' doubts by providing consumers with information on product characteristics. For example, promotion campaigns can inform consumers about methods for ripening and storing fruits and vegetables, nutritional value, or preparation. Advertising can remind consumers of product availability and offer information on price or product uses.

For example, shoppers will probably not purchase a Florida avocado until

they (1) are apprised of the product's availability, (2) perceive value in the product, and (3) are convinced that the product is superior to the hundreds of other products competing for that portion of their food dollar. It would seem to be in the interests of the avocado marketing-order committee to relay accurate information to shoppers because, if they are not made aware of the product's attributes, they will probably purchase something else. Marketing quality products is also in the committees' interests—although advertising can persuade a consumer to purchase fruit once—because resales will not occur unless the quality is reliable.

The aim is to know and understand the consumer so well that the products sell themselves. By successfully researching the market and then developing and delivering the products desired by consumers, farmers can establish long-term demand for products. Since the trend is toward greater use of demand-enhancing quality and market-support tools over short-term supply controls, consumers should benefit.

Farmers Are Also Affected

The California nectarine industry is probably the best example of how successful research, followed by improvements in quality, can increase long-term demand. Nectarines became subject to a marketing order in 1958 after research produced a more colorful and firmer variety that shipped better than the older, less visually appealing, white-fleshed varieties. The nectarine's share of the summer fruit market has grown every year since.

On the other hand, the California fresh apricot industry's major problem of the early 1960's, poor-quality fruit reaching the marketplace, still persists today. The California fresh apricot industry voted down a quality-control and research and development marketing order in 1962. California fruit wholesalers told us that the apricot industry today survives in California largely due to processed secondary markets, such as canned and dried fruit. But farmers receive much lower



Marketing orders control the flow of fruits and vegetables, ensuring that supermarkets, such as this one, maintain an adequate stock of uniform-quality food items.

prices for processed fruit than they would receive for fresh fruit, and the production and sale of apricots are declining, a condition that contrasts with that of fruits under quality-control programs. Consumers either do not receive fresh apricots or are not satisfied with the quality of the fruit.

Merits and Shortcomings

Most marketing orders today emphasize technical approaches for enhancing demand, controlling quality, promoting crops, and conducting research and development. These tools create little debate because more and better product information improves the market's operation. However, the process of transferring traditional production-oriented industries to contemporary marketing industries takes time and usually requires extensive research on consumer needs, consumer tastes, and product development.

USDA's Position

In commenting on GAO's report, USDA said that it considers demand-enhancing marketing-order programs beneficial to farmers, marketers, and consumers, but that its objective is not to encourage the development of additional programs. The report does not, however, recommend creation of new marketing-order programs. Rather, it recommends developing criteria for determining marketing-order success or failure, updating a 19-year-old policy manual, and improving public communication to reduce confusion about marketing orders. Each recommendation is directed at managing the marketing-order program in a businesslike fashion to accomplish the stated objective of the legislation: orderly markets.

USDA also stated that

transcending the administrative position on marketing orders... is the strongly held belief that all Americans would benefit most by a significantly reduced level of government interference in their business and lives.

GAO's report recognizes this philosophy by encouraging the marketing sector to take responsibility for marketing decisions at minimum government expense and involvement. By encouraging farmers and wholesalers to research and promote products based on consumer demand, marketing

orders approximate the business decisions made by most United States companies. Marketing orders can provide an inexpensive mechanism to buffer extremes in supply and prices that occur when farm production is left dependent on nature. In addition, they

can allow individual farmers and marketers to work together to ensure that (1) products offered consumers are of the desired quality and (2) consumers have adequate information about those products to make educated purchase decisions.



USDA inspectors examine peaches to ensure compliance with marketing-order standards.

A Different Perspective: States' Roles in Internal Controls

A Survey of Internal Controls by State Agencies



In promoting GAO's efforts to seek cooperation among federal, state, and local auditors and evaluators, *The GAO Review* presents this occasional intergovernmental series. We encourage our state and local colleagues to contribute articles relevant to the intergovernmental audit and evaluation community.

H. Perrin Garsombke

Mr. Garsombke is an associate professor of accounting and information systems at the University of Wyoming. His primary interests are auditing, especially electronic data processing auditing and controls. A consultant who specializes in microcomputers, Mr. Garsombke has consulted for the Office of the Secretary of State (Texas) on internal accounting controls. He received both an M.B.A. degree (1972) and a Ph.D. degree (1976) from UCLA. He is a certified public accountant (Colorado).

Increased Focus on Internal Controls

In recent years, more and more attention has been focused on internal controls in organizations. In the private sector, the Foreign Corrupt Practices Act (FCPA) of 1976 has induced a greater focus on and concern about controls. FCPA requires corporations to devise and maintain systems of in-

ternal accounting control sufficient to provide that reasonable assurance transactions are authorized by management and properly recorded, access to assets is restricted to authorized personnel, and comparisons are made between recorded and existing assets. FCPA prompted at least one major research study¹ and numerous articles² on internal controls in United States corporations.

In the public sector, the Federal Managers' Financial Integrity Act (P.L. 97-255) called for (1) heads of federal executive agencies to report on the "adequacy of the agency's systems of internal accounting and administrative control" and (2) the Comptroller General to "establish a system of reporting and a general framework to guide the agencies in performing evaluations on their systems of... control." Many published articles³ have addressed these issues. One recent indication of the increased interest in controls was the creation by the American Institute of Certified Public Accountants (AICPA) of a special advisory committee on internal controls in the federal government.

At least two states (California and New York) are considering legislation similar to the federal act.⁴ Little is known, however, about the general reaction of state governments to the changes taking place in private industry and the federal government concerning internal controls.

This article reports on the results of a survey of state audit agencies that focused on three aspects in the review and evaluation of internal control in state agencies: extent of documentation of controls, sampling methods used to test controls, and electronic data processing (EDP) controls and audit techniques. Auditors were asked to rate their state's agencies on the extent of documentation of controls, divided into three categories: flowcharts, narrative descriptions, or a combination of both. In the sampling area, auditors were asked to disclose what statistical and judgmental sampling techniques they used and what

percentages they used for the statistical parameters of confidence (reliability) level, expected population-error rates, and precision. With respect to EDP, the auditors were asked about their use of computerized systems, the extent of their review and testing of these systems, and the EDP audit techniques being used.

Data Collection

A survey (see "Questionnaire" at the end of this article) was sent to the heads of 60 state audit agencies in 47 states. The sample includes 13 states with more than one agency that audits various state agencies; it excludes three states to which no survey was sent. Agencies that did not reply to the initial survey were sent a second request. The overall response rates were

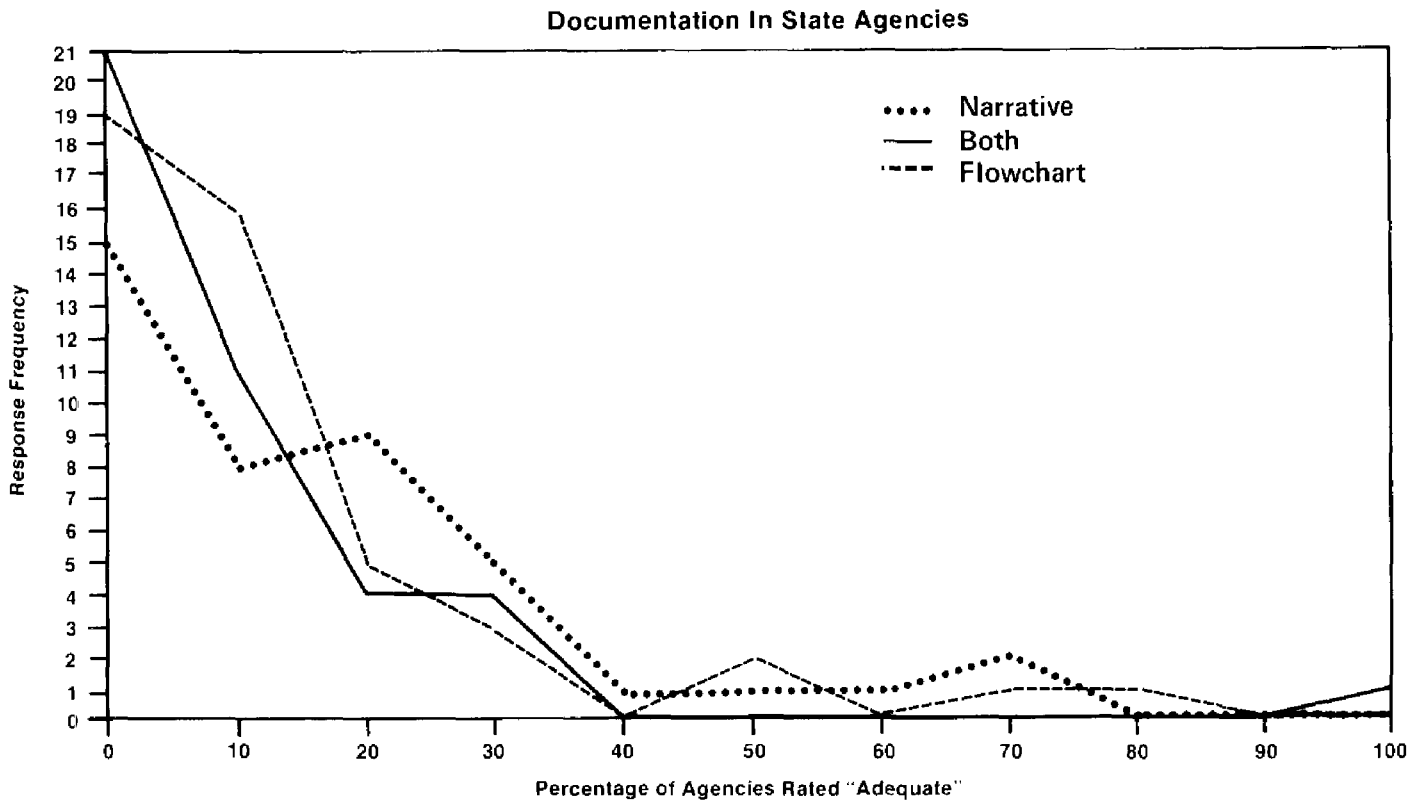
¹Robert K. Mautz et al., *Internal Control in U.S. Corporations: The State of the Art* (Financial Executives Research Foundation, 1980).

²For example, Felix Pomeranz, "Corporate Response to FCPA," *Journal of Accounting, Auditing, and Finance* (fall 1978), pp. 70-75; Dennis R. Beresford, "FCPA—Its Implications to Financial Management," *Financial Executive* (August 1978), pp. 26-32; John D. Brandt, "FCPA and the Internal Auditor," *Internal Auditor* (August 1979), pp. 15-20; Thomas E. McKee, "Auditing Under the FCPA," *CPA Journal* (August 1979), pp. 31-35; and Allen Young, "FCPA's Impact on Business," *California CPA Quarterly* (December 1979), pp. 19-22.

³For example, Elmer B. Staats, "Internal Controls in Government—Are They Good Enough To Prevent Fraud?," *The Government Accountants Journal* (summer 1980), pp. 1-6, and General Accounting Office, "The Relationship Between Internal Controls and Fraud, Waste, and Abuse," *The Government Accountants Journal* (fall 1980), pp. 38-55.

⁴Charles A. Bowsher, "The GAO and the Accounting Profession," *Journal of Accountancy* (February 1983), pp. 66-72.

Figure 1



quite high,⁵ with 81.5 percent of the potentially usable sample responding to the survey. This level of response indicates the importance given the survey's subject matter by the recipients.

Results

Documentation

The survey asked state auditors what percentage of their state's agencies had "adequate" documentation of their internal accounting control system in the form of flowcharts, narrative descriptions, or both. As Figure 1 shows, the most frequent response (19 state auditors) with respect to adequacy of flowchart documentation was 0 percent, while another 16 auditors responded with 10 percent. Documentation using narrative description was rated somewhat higher, with 15 state auditors responding with 0 percent and 8 with 10 percent. Very few state audit agencies assessed the level of adequate documentation as being 40 percent or greater.

It is difficult to say whether the extent of documentation in state agencies is relatively high or low. Some evidence exists, however, concerning the relative adequacy of documentation in private industry. In the survey by

Mautz et al. done for the Financial Executives Institute, one question asked subjects about the extent to which their firm's internal control system was described in a company manual.⁶ Only 23 percent responded "very little," while 42 percent said "partially." Thirty percent claimed their control system was "completely" or "almost completely" described.

In addition, the same study⁷ reports that "documentation of the company's present internal control practices" was the second most frequently mentioned action taken in response to FCPA. The action mentioned most often was "review of internal control..." It therefore seems reasonable to suspect that documentation of internal controls in private industry increased after passage of FCPA. The fact that FCPA did not affect state government agencies may partially explain why the state auditors in this study attach low percentages to the existence of adequate documentation in state agencies.

Sampling Methods

The state auditors were asked several questions about their use of sampling methods—statistical and judgmental—when testing internal controls. Table 1 summarizes the

responses concerning the use of statistical techniques to estimate population-error rates. Simple attribute sampling is, by far, the most frequently used method when the number of responses is weighted by the extent of use, as in the last column of Table 1, followed by Probability Proportional to Size (PPS or DUS), Discovery, and Stop-or-go sampling. ("Stop-or-go" sampling is used when an auditor expects a zero (or very low) rate of compliance deviation. The auditor can halt sampling when zero or a defined number of occurrences is observed. This method can, therefore, be more efficient than a fixed-sample size method.)

The next set of questions dealt with parameters to be considered when applying statistical methods. The

⁵As a comparison, a survey of state audit agencies done by the Stanford Research Institute, "Systems Auditability and Control Study: Control Practices Report" (Institute of Internal Auditors, 1977), achieved a response rate of only 46 percent; a survey of private corporations by the Financial Executives Institute (Mautz, p. 15) regarding internal controls had a 33 percent response rate.

⁶Mautz, p. 225.

⁷Mautz, p. 231.

Table 1

Frequency of Use of Statistical Sampling Methods

Method of sampling	Extent of Use*					Total number of responses	Number of responses weighted by extent of use**
	1	2	3	4	5		
1. Simple attribute	1	5	4	6	25	41	172
2. Probability proportional to size (PPS) or dollar unit (DUS)	15	7	7	3	1	33	67
3. Discovery	17	4	9	2	0	32	60
4. Stop-or-go	8	5	3	6	1	23	56

*One equals "seldom used," five equals "used very often."
 **The sum of "extent of use" multiplied by "number of responses."

auditors were asked about their use of confidence levels, precision levels, and expected error rates in the populations they typically sample.

The most frequently used confidence level was 95 percent, with a range of 90-95 percent being the second most frequently used level. More variability was seen in the choice of expected population-error rates. While 2 percent is the most common error rate, 5 percent is a close second. The re-

quired precision of the sample estimate is also varied, but most state audit agencies require 5 percent or less.

The state auditors were also asked what sampling methods were employed when judgment sampling, rather than statistical sampling, was used. Systematic and stratified sampling were the most frequently used methods, while block-sampling was third. The method least frequently used

was haphazard sampling, which has little theoretical support as a sampling method.

EDP Controls

The state auditors were asked several questions about how their state agencies used computer systems and what resources they had available to audit such agencies. The first set of questions dealt with mainframe computer systems and the extent of review and testing of those systems by the state auditor's office. Figure 2 shows that a majority of state agencies use a mainframe computer, with 27 of the 44 respondents indicating that 80 percent or more of their state's agencies use mainframe computers. Figure 3 reveals that even larger percentages of audits of the agencies involve a review of controls in the mainframe EDP systems. There is a somewhat lower percentage of tests of these systems, as Figure 4 shows.

The picture is quite different when we look at the aggregate responses to similar questions about micro/mini-computer systems. Figure 2 shows fewer percentages of state agencies with these smaller computer systems. Note, for example, that 27 respondents rate mini/microcomputer use at 10 percent or less in state agencies. More importantly, the percentages of these systems reviewed and tested by state

Figure 2

Mainframe Vs. Micro Use

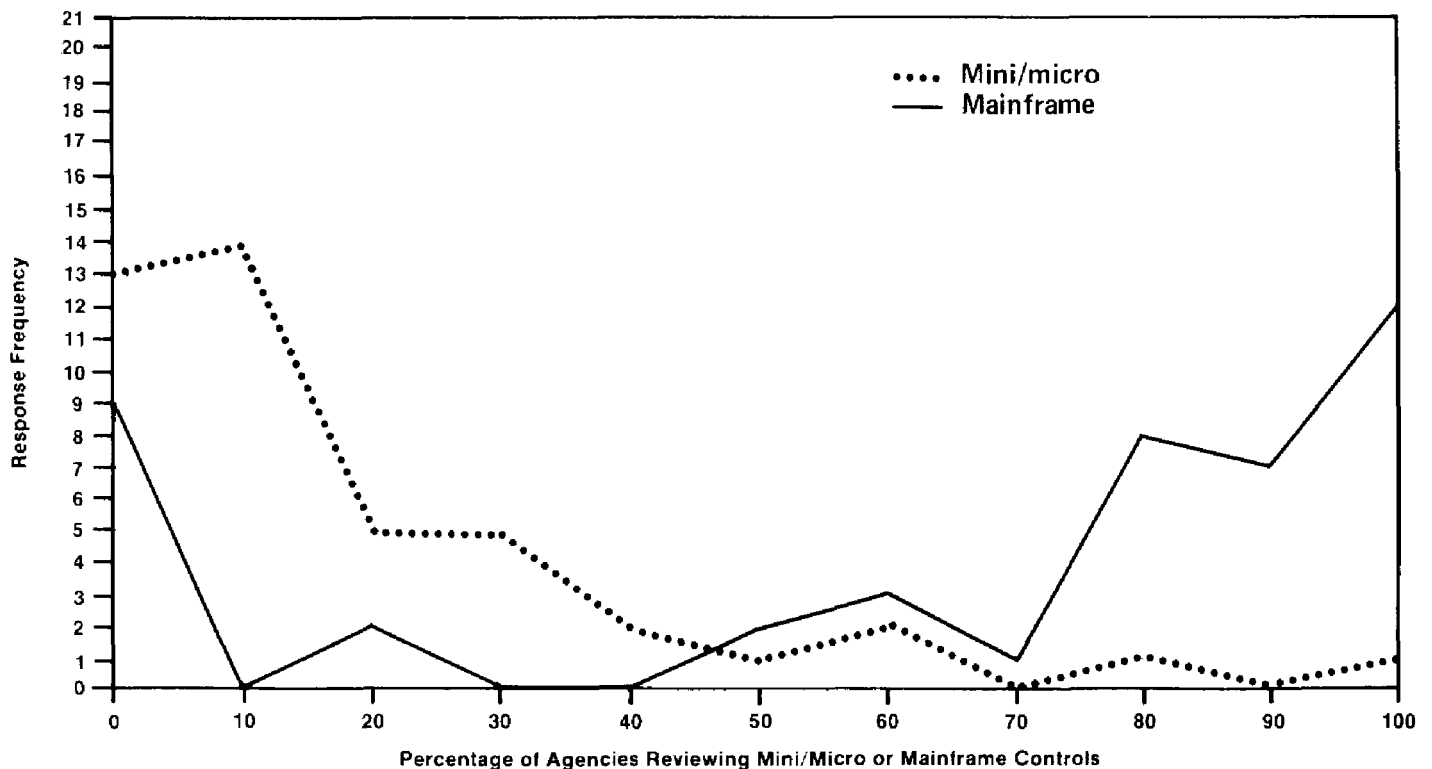
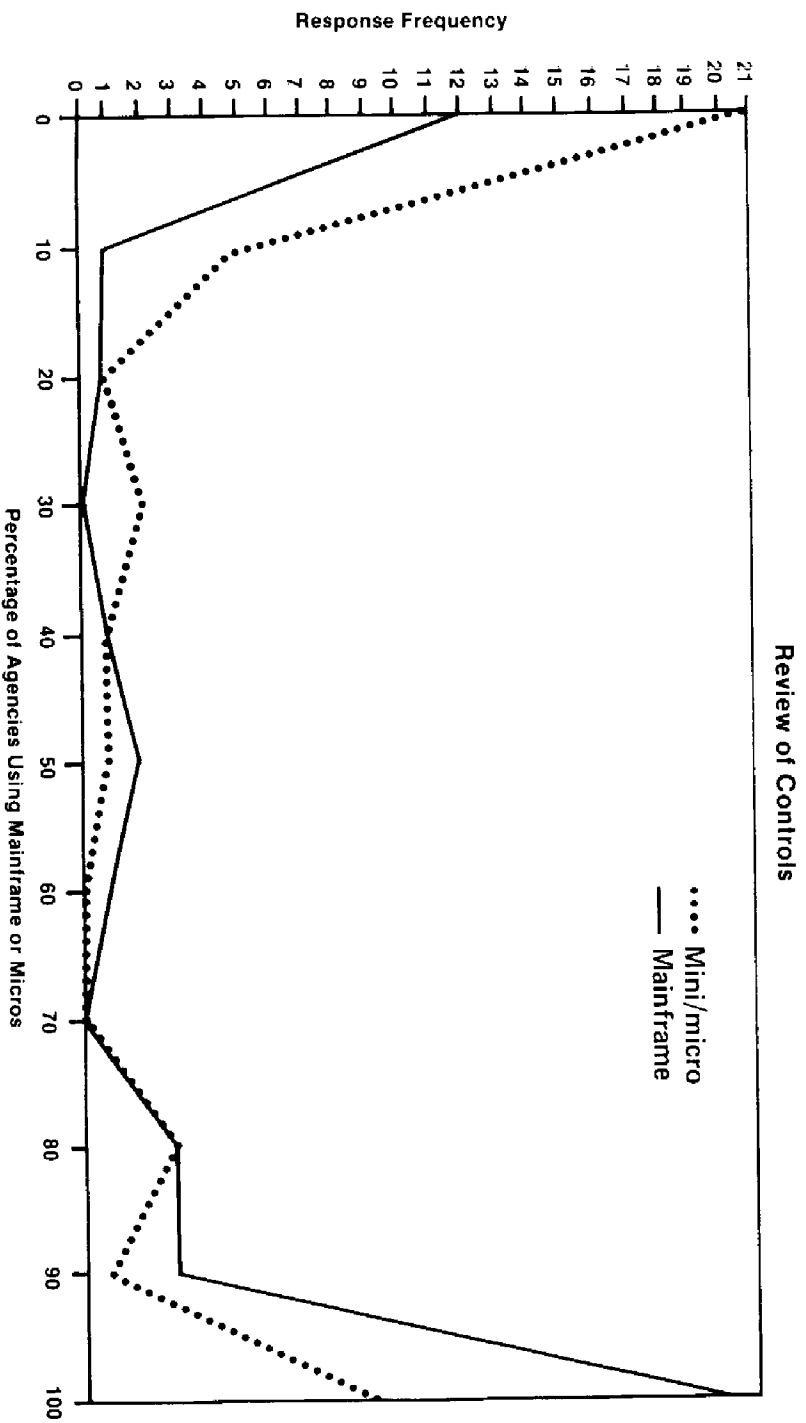
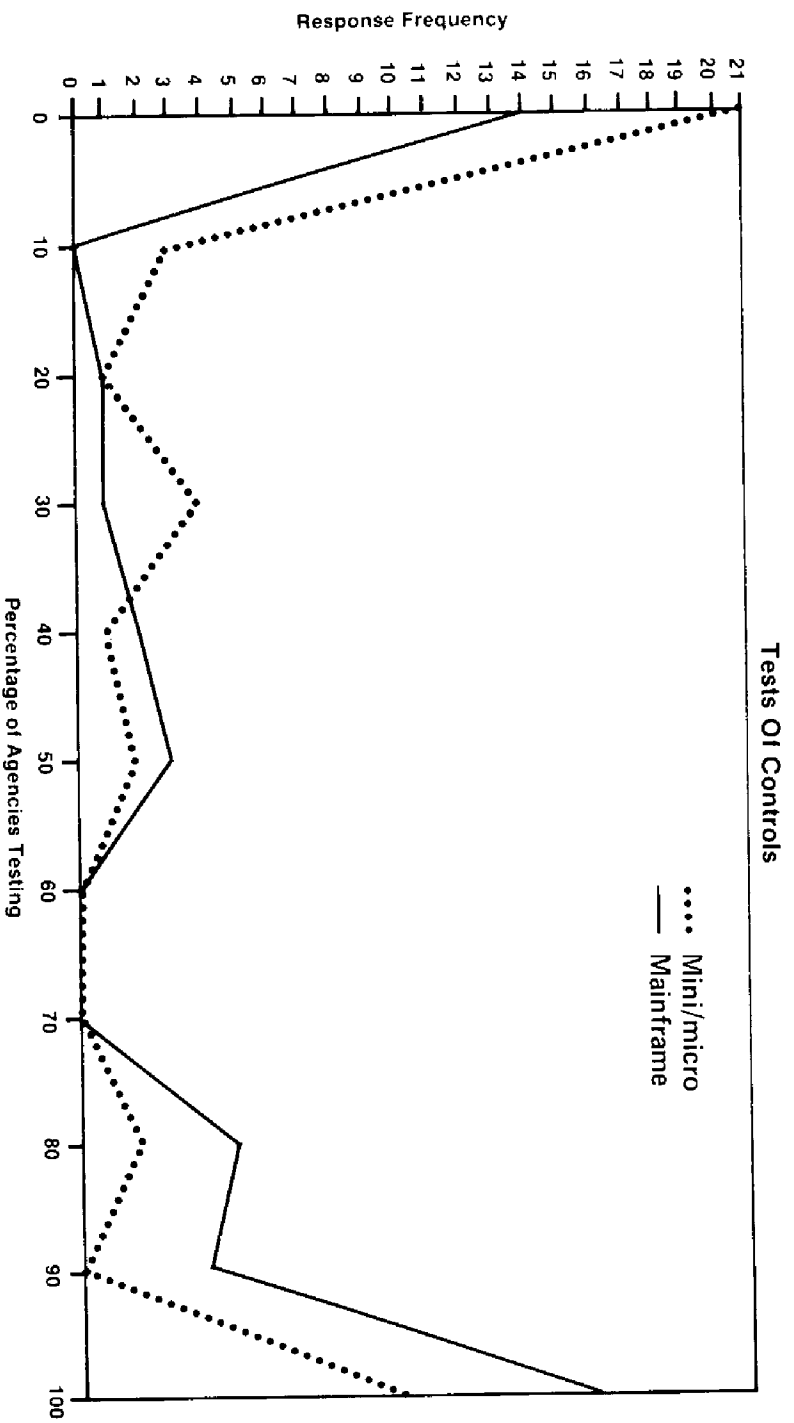


Figure 3



Review of Controls

Figure 4



Tests Of Controls

audit agencies are smaller than in the case of mainframes, as Figures 3 and 4 clearly show. These results have more important implications, given the need for controls in smaller systems as well as in larger ones and given the proliferation of smaller systems. In fact, it can be argued that controls are needed more in the micro/minicomputer environment.⁸

The state auditors were also asked about the selected EDP audit tools/techniques they used to audit state agency EDP systems. Table 2 shows their responses. Generalized Audit Software Packages (GASPs) were the most frequently used tools, followed by test data and parallel simulation. These results are compared, in the last column of Table 2, to the Stanford Research Institute study⁹ of control practices in nongovernmental organizations. The relative extent of use of the different EDP audit techniques is very similar for the state audit agencies and the nongovernmental organizations. Table 3 lists the variety of GASPs that are used by the responding state audit agencies. The vast majority of GASPs used are ones commonly used in private industry and by "Big-8" CPA firms.

A correlation analysis was done to assess any relationship between the resources available to the state audit agencies and the extent of review and testing of EDP control. A study¹⁰ by the National Association of State Auditors, Comptrollers, and Treasurers provided data on the budget and number of employees in each audit agency and produced data on the number of EDP auditors in each agency. Table 4 shows the Pearson correlation coefficients (a standard statistical test) among these variables. Note that a relative measure (the number of EDP auditors in the audit agency divided by the total number of employees) was computed and used in the analysis in addition to the absolute number of EDP auditors.

The only correlations that have a 90-percent or greater chance of being not equal to zero are those four correlations underlined in Table 4, i.e., those correlations between (1) the number of EDP auditors (both absolute and relative) and (2) the review of controls (for both mainframes and mini/micros). These results imply that agencies with more EDP auditors review a greater percentage of state agencies' EDP controls. But they do not necessarily follow up with tests of those controls at levels higher than audit agencies with fewer resources.

Table 2

Use of EDP Audit Tools/Techniques by State Audit Agencies

EDP audit tool	Number of state audit agencies indicating tool is used	As a percentage of the 44 responding agencies	Percentage used in SRI study*
1. Generalized audit software package	27	61%	33%
2. Test data	15	34	27
3. Parallel simulation	15	34	23
4. Systems control audit review file (SCARF)	4	9	N/A
5. Snap shot	6	14	18
6. Integrated test facility (ITF)	5	11	5

*The Stanford Research Institute study (see footnote 5) included responses from 221 regulated and nonregulated organizations from a sample of the 3,000 largest nongovernmental United States organizations with computer systems.

Documentation Is the Exception

The survey responses led to general conclusions regarding each of these areas. The results show, firstly, that documentation is the exception, rather than the rule, in most state agencies audited by the responding auditors. Narrative description was more common than flowcharting, but neither form of documentation was widely used. This limited evidence suggests that the documentation of internal controls in state agencies may be lower than that in private industry.

Sampling Use Is Widespread

In the sampling area, the study indicates that some degree of statistical sampling is used by almost all the state audit agencies. The levels of sampling that auditors use in establishing parameters for confidence levels, expected-population error rate, and decision level appear reasonable and consistent with levels used in public accounting. For example, when judgment sampling is used, the state auditors use methods that have authoritative support, such as systematic or stratified sampling, and eschew methods with little support, such as haphazard sampling.

The state auditors included in this study reviewed a large percentage of state agency EDP control systems for

mainframe systems. A lower but relatively large percentage of these control systems is tested for compliance by these state auditors. The corresponding percentages for micro/minicomputer systems were significantly lower. The state audit agencies' use of EDP audit techniques was very similar to that reported in a previous study for nongovernmental organizations, and their use of Generalized Audit Software parallels use by private industry and large public accounting firms.

In the area of resource constraints, the study indicated that audit agencies with greater numbers of EDP auditors manage to review controls in state agencies to a greater extent, although they do not actually test the controls to

⁸As one example, Shearon, Butler, and Benjamin, "Audit Aspects of Small Computer Systems," *CPA Journal* (August 1980), pp. 17-21, note that the "major problem . . . found in the audit . . . of a small computer system . . . is that a single person is responsible for one or more functional accounting areas The auditor may determine that . . . alternative controls . . . compensate for the weak separation of function controls. More frequently, the compensating controls will be found to be inadequate. . . ."

⁹Stanford Research Institute, p. 43.

¹⁰National Association of State Auditors, Comptrollers, and Treasurers, *Auditing in the States: An Overview* (Council of State Governments, 1981).

Table 3

Use of Generalized Audit Software Packages (GASPs) by State Audit Agencies

GASP	Number of state audit agencies reporting use
STRATA (Touche Ross)	6
CULPRIT	5
CARS IV (Cullinane)	5
DYL-Audit (Dylakor)	5
Easytrieve/Panaudit (Pansophic)	5
EDP Auditor	4
AUDITAPE (Deloitte, Haskins, Sells)	4
MARK IV (Informatics)	2
SPSS (Statistical Package for the Social Sciences)	1
SAS	1
SYSTEM 2170 (Peat, Marwick, Mitchell)	1
AUDITEC (Carleton)	1
AUDIT ANALYZER	1

Note: Three audit agencies indicated that they used two of the GASPs listed above, and four agencies used as many as three of the GASPs.

Table 4

Correlation of Audit Agency Resources With Extent of Review and Testing of Controls

Independent variables	Dependent Variables			
	Mainframe controls		Mini-micro controls	
	Review	Tests	Review	Tests
Number of EDP auditors	.20* (.10)**	.06 (.36)	.25 (.05)	.09 (.28)
Number of EDP auditors ÷ total of employees	.29 (.03)	.13 (.20)	.37 (.007)	.15 (.16)
Total agency budget (\$)	-.06 (.35)	-.10 (.27)	-.04 (.39)	-.12 (.23)

*Pearson correlation coefficient = r.

**Probability r = 0.

a greater extent than do audit agencies with fewer EDP auditors.

On the basis of responses from the state auditors surveyed, the review and evaluation of internal controls in state agencies is similar to that done in

other organizations. The major difference is in the area of documentation, since the state audit agencies reported a high percentage of state agencies with inadequate documentation.

Questionnaire on Internal Controls

(If you wish to qualify or expand your answers, please do so on the last page.)

I. General Questions on Controls

1. a. Is there any legislation in your state, now existing or proposed, which requires a periodic assessment of internal accounting and/or administrative controls in state agencies? (yes or no) _____
- b. If yes, what does or what would the law require? (Please answer on the last page.) _____
- c. If yes, to whom must a report on internal controls be sent? _____
2. Does your state government have any formal programs (other than audits by your agency, internal audits, or provisions of law described in question 1) to maintain or improve the effectiveness and efficiency of your state government? (Please answer on the last page.) _____
3. What percentage of your state's agencies have what you would consider "adequate" documentation of their internal accounting control systems in the form of
 - a. flowcharts? _____%
 - b. narrative description? _____%
 - c. (a) and (b)? _____%
 - d. other (specify—____)? _____%
4. Does the unqualified audit report given by your agency include a statement that generally accepted auditing standards were used? (yes or no) _____

II. Sampling Methods Used to Test Controls

1. Please rank the following statistical sampling techniques used in compliance testing on a scale of 1-5 by the extent to which they are used in your agency to estimate *population*

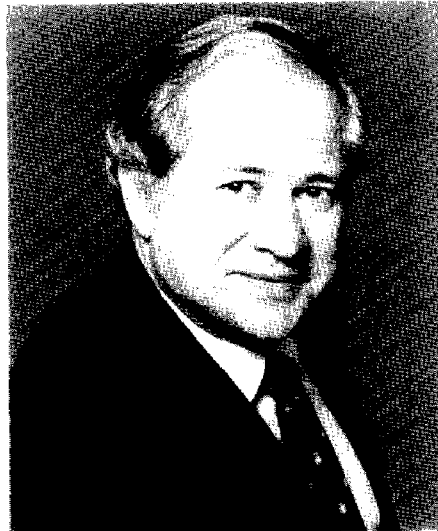
See Survey, pg. 59

Testing Criteria and Ideas With the Small-Group Conference



Robert Hall

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Brian Keenan

Mr. Keenan is a principal survey methodologist and group director in the Program Evaluation and Methodology Division (PEMD). Mr. Keenan came to GAO in 1972 after doing research and project management work for several universities and "think-tanks." He has received advanced degrees in the social sciences, operations research, and evaluation from Columbia University, the University of Massachusetts, and the Program for Advanced Studies (formerly in Cambridge, Massachusetts). Mr. Keenan has received a Director's Award for management and the Distinguished Service Award for policy implementation.



Marilyn Mauch

Ms. Mauch is a supervisory social science analyst in PEMD. She came to GAO 5 years ago from the National Institutes of Health, where she was involved in research. Since then, she has provided technical and project management assistance on audits at all GAO divisions and regions. Ms. Mauch has a master's degree in psychology from the University of California at Berkeley and is completing work on her doctorate in the same field at Catholic University in Washington, D.C. She has received three GAO awards for distinguished performance.

After reading this article's title, you may expect the text to describe a widely known, time-tested idea cleverly repackaged to suit modern tastes, such as the perennial "new" wheel. "I know what that is," you say to yourself, thinking about small-group conferences. "GAO staff have been sharing ideas in team meetings, staff meetings, and all kinds of other formal and informal sessions for years."

However, the small-group conference, as described here, is new and not widely known, although it would be quite useful in a number of evaluation settings. It can be beneficial when used judiciously (i.e., paying careful attention to group composition and

dynamics) and can be especially useful in helping develop criteria for an evaluation when these criteria have been neither established by the Congress nor included in program regulations.

The small-group conference is well-suited to studying emerging problems and analyzing complex problems that defy easy resolution. It provides a structured approach to collecting data from people—termed knowledgeholders—who possess important information. By facilitating objective assessment and discussion among the diverse group members, the small-group conference can be a major vehicle for evaluating data and the

resulting conclusions and recommendations. Complex problems can be solved through its use because each group member possesses unique information that the group synthesizes into more useful ideas. Small-group conferences differ from "focus groups," which are primarily used for data-gathering and exploring, in that they deal more with testing data and the resulting recommendations. Evaluators can use the small-group conference to

- test data validity,
- assess the comprehensiveness of information,
- interpret information, and

- garner the experts' opinions on proposed recommendations. The ensuing discussions produce new conclusions and encourage participants to modify existing conclusions and rethink recommendations.

To ensure the full potential of the conferences, GAO staff structure the meetings carefully. They have an established agenda, and the knowledge-holders know the lines of inquiry and tasks they are to accomplish.

Small-Group Conferences: Some Uses in GAO's Work

The Program Evaluation and Methodology Division (PEMD) staff has used the small-group conference technique in three studies that illustrate the type of audit/evaluation for which the technique proved especially useful.

Several years ago, GAO studied why there was a shortage of military doctors in the summer months. One initial hypothesis was that military personnel relocated in the summer so they could register their children for school in the fall. However, preliminary interviews uncovered different reasons for the shortage problem, and GAO staff could not synthesize these separate ideas into meaningful hypotheses. When we brought together the various knowledge-holders, however, they were able to exchange information, map the total process of personnel allocation, and identify the real factors that created the summer shortages.

PEMD staff also used the technique to study area agencies for the aging. To do the study, the staff needed to develop criteria to describe a "good" agency because no criteria existed. While these agencies have the same mission—to enhance service delivery to the elderly—they operate differently depending on their locale and the needs of the elderly in the area. Using the small-group conference technique, PEMD staff were able to develop a profile of a "good" agency, list criteria, specify ways to measure the criteria, and weight the criteria by relative importance.

NSIAD Uses Small-Group Conferences

The third illustration is an evaluation GAO is doing at the request of the Senate Committee on Governmental Affairs and its Subcommittee on Oversight of Government Management. The

study seeks to determine the capability of Department of Defense (DOD) program managers and contracting officers to develop long-term strategies for buying new major weapon systems and to identify how the managers' and officers' capabilities can be improved. The evaluation measures four aspects of capability, including (1) roles and responsibilities in designing and executing the contract strategy; (2) performance of those roles; (3) preparation for the roles by virtue of career path, selection criteria, and job tenure and incentives; and (4) external influences on roles and performance. The study compared capability under both desired and existing conditions, assessed whether the existing conditions fell short and, if so, recommended ways to bring them up to the desired level.

However, several roadblocks hindered the study. Criteria for "desired" capability frequently are unavailable, DOD policy guidelines for roles and responsibilities are often nonexistent or vague, and DOD guidelines on career preparation are not fully developed and implemented. Furthermore, conditions vary greatly among acquisition programs and military service branches. For example, the contracting officer theoretically is responsible for procurements, but business managers take procurement actions, too. Lastly, we couldn't use program success or failure as a standard for workforce capabilities because many factors other than capability affect success or failure. Realizing that the knowledge-holders were dispersed throughout each of the military services merely added to the challenge of designing the job.

To describe existing roles, responsibilities, performance, and influences, we studied 17 new major weapon systems at seven different commands, focusing on programs that were in the concept-exploration or demonstration and validation stages. We used this focus because this was the time when the key business decisions were being made and because we could more accurately trace the history of these "young" programs.

When DOD or the services had policy guidelines for program managers and contracting officers, we used these guidelines as criteria. When existing guidelines were vague, nonexistent, or deficient, we developed new ones. To do this, we used (1) small-group conferences with top program managers and contracting officers at the 17 case-study sites, (2) DOD management surveys, (3) private industry surveys, and (4) consultation with experts. We

used successive-structured data collection techniques¹ with these multiple sources to derive comprehensive, sound criteria. Opinions and experiences were tested against each other and then refined to obtain a consensus among the various data sources. We also reviewed DOD's career programs and gathered career data on all major weapon program managers and contracting officers appointed over a 3-year period. Then, we compared the data to DOD policies and private industry information.

How the Conference Technique Worked

Management staff at each of the seven commands selected five program managers and five contracting officers who were experienced performers. The selectees each completed a questionnaire consisting of some structured items and some open lines of inquiry.

After in-depth personal interviews, participants received a written summary of all questionnaire and interview responses obtained at their locations. These summaries formed a basis for the group conferences held at each site. These conferences were chaired by GAO, and all 10 respondents participated. Figure 1 shows how this worked.

After convening groups at the seven individual locations, we convened a composite group conference with representatives from each military service to try to develop a consensus on the roles and responsibilities of program managers and contracting officers as well as on the types of career programs they need. We did not force a consensus. Rather, we clearly stated when participants and services disagreed with the prevailing view. Equally important, we tested our tentative conclusions and recommendations drawn from GAO's report conference with an expert group and refined the recommendations according to the group's advice.

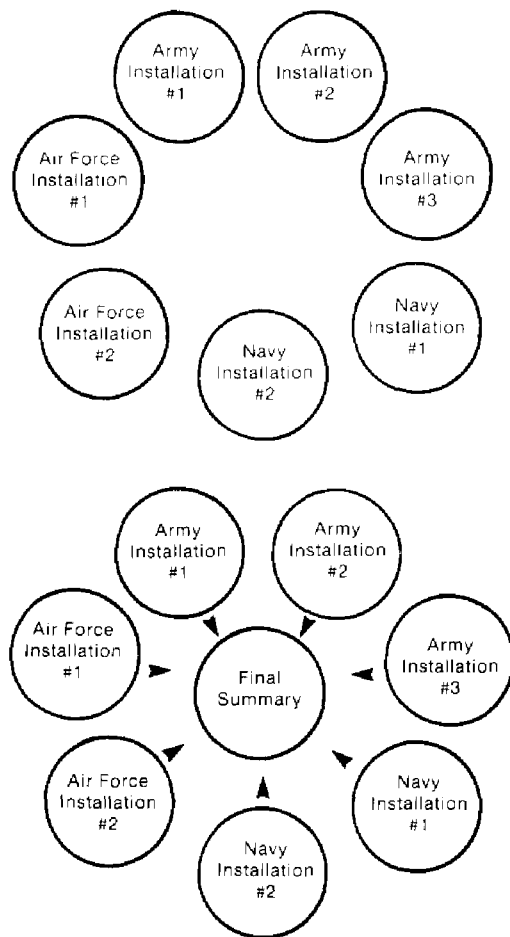
Conference Results

The conference technique provided criteria for measuring desired conditions and/or capabilities. These criteria

¹Structured items are detailed and often require the respondent to choose from several answers that have been provided. Open lines of inquiry allow respondents to develop their own answers.

Figure 1

Small Group Conference Technique For Seven Major Weapon Systems Installations



Stage 1-Data-gathering at each of seven installations

- Five program managers and five contracting officers answer a questionnaire.
- GAO evaluators interview these ten participants.
- Summary of questionnaire and interview data is distributed.
- The ten participate in small-group conference.
- Summary of conference views is distributed and feedback requested.

Stage 2-Developing a consensus among the seven installations and three services

- Participants at each installation choose two representatives for tri-service conference.
- Seven summaries (mentioned above) are combined and sent to these representatives. Potential GAO recommendations also are sent for review.
- Tri-service conference held with representatives.
- GAO sends summary of new/changed views to representatives and feedback is requested.

were compared with data collected in other ways to further corroborate the findings. The weapons-acquisitions systems we studied were very complex and had unique roles, responsibilities, procedures, processes, and conditions. No single source could say which was best across services and locations. However, when the conference participants shared their knowledge, assimilated data from others, and integrated the information from other sources, they were able to develop a consensus on most major issues and substantially reduce the range of issues for which there were minority views.

The conference also allowed us to test the comprehensiveness of our information and validate our conclusions and recommendations.

Usefulness of Conference Data

The conference results will be used extensively in developing GAO's report to the Congress and in commenting on pending legislation. For example, the

criteria for career development of program managers came from the tri-service meeting. These changes include having personnel make a sufficiently early commitment to the field of acquisition to permit development and utilization, assigning personnel to key developmental positions before making them program managers, providing them with formal training, promoting them based on their acquisition performance, building in career incentives (reserving flag rank and Senior Executive Service positions), and linking tenure to specific identifiable results (accountability). Industry and military management have expressed interest in the conference data and have provided positive feedback.

Advantages and Disadvantages

Since the small-group conference process is controlled, it is less disruptive, more comprehensive, and less biased than some other data collection techniques. If properly harnessed, the collective intelligence and creative

abilities of a group working together are usually greater than those of an individual. The process permits faster data gathering: Data can be collected in days or weeks rather than months. While it is not always as bias-free as the Delphi technique,² the small-group conference process yields a much higher quality of information interchange because of the group dynamics.

However, as with all real-time interactive group techniques, the conference techniques require a skilled moderator, travel, and a cooperative group. Obviously, it is neither as bias-free nor efficient as standard survey methods for measuring a population attribute or testing a hypothesis. However, under certain conditions, it has proven to be an efficient, effective

²The Delphi technique consists of mailing a questionnaire to knowledge-holders, getting their responses, sharing these answers with other knowledge-holders, and then asking once more for their answers. This process can be repeated several times.

technique for plumbing human resources.

A small-group conference is most useful if three conditions are present:

- The knowledge base is distributed.
- The attribute or hypothesis to be measured or tested is not distinctly and conclusively definable.
- The phenomenon being studied would be best understood by a convergence or divergence of prevailing thought.

Ed. Note: The previous section of this article dealt with some illustrations of the small-group conference in action. The following section concerns the role of the moderator, the phases normally associated with implementing this technique, and problem behaviors that frequently occur.

Implementing the Small-Group Process

Small-group conferences require a skilled moderator to set conference objectives and facilitate the conference itself. The moderator does not lead the group, but merely facilitates the group's task performance and dynamics. The moderator must be respected as a neutral and honest broker by the participants. Moderators must be knowledgeable about the issue area's pros and cons and aware of the various methods used to develop, maintain, and catalyze an effective group.

GAO evaluators served as group moderators for the three GAO studies that used small-group conferences because they had both the appropriate background needed to facilitate technical information exchange and considerable practical experience in facilitating group meetings. PEMD staff provided formal training in group dynamics that consisted of a 2-day practicum of lectures, videos of group problem-solving sessions, and group exercises in problem-solving.

Stages of Growth

During the first phase of implementing a small-group conference—orientation—people begin to evaluate each other and recognize the need for organization. Then there is a period of conflict and challenge as people bid for certain roles. Phases of cohesion, disillusion, disillusion, and, finally, acceptance follow. The dynamics of this process point up one disadvantage of a group process: Much time and effort are used in moving the group from orientation to acceptance.

Orientation and Conflict

The orientation phase, always characterized by little progress, ends when conflict and challenges over leadership and other roles begin. The group resources, talent, time, and energy are dissipated on power plays, rebellion, and challenges during this conflict phase, with few accomplishments and little information exchange.

When the group is ready, the moderator must try to shift from confrontation to the next phase: doing the job. This shift is often accomplished by a task-oriented group member who neither seeks nor avoids power and is not anxious about his/her position or relationship in the group. This task-oriented member forces people to focus on authority, procedures, and roles. Faced with these issues, people begin to feel more comfortable in their attitudes toward the issues, their roles, and each other. Once the conflict and the group structure and procedures have settled, the group moves to the third stage, called cohesion.

Cohesion and Delusion

By this phase, the group is starting to get significant work done for the first time. Cohesion begins to build as people are relieved that many of the controversies and conflicts have been resolved. However, the moderator must be on guard: Some problems are still unresolved, and they may surface as the group tries to reach a consensus.

Disillusion

Having realized their delusion that the conflicts have been resolved, group members experience disillusion. Confidence erodes, and the members realize the group is not working to its full potential. Subgroups are formed. Some people increase their commitment to the task and openly reveal their strengths and weaknesses while others are slow to respond. This is a very difficult time for the moderator. If progress occurs too quickly, solutions will involve only part of the group, and the problems will have to be reworked later.

Gaining Acceptance

Again, the moderator must look for help from the group members. Typically this intervention comes from an unexpected source. This person is usually neither a leader nor a follower, but rather, one who is more concerned

about the group and its people than objectives, procedures, or roles. This person gets people to test their self- and group perceptions, a process that promotes mutual understanding. The result is some readjustment in the group structures, roles, activities, and processes. However, this time, these factors are more completely understood and accepted. In this fashion, the group moves to the sixth phase, acceptance.

In this final phase, group members accept roles, responsibilities, procedures, and objectives. They talk, make assignments, and complete them without feeling personally uncomfortable. Influence, leadership, assignments, and responsibilities shift from one person to another with the requirements of the issue.

Moderator Responsibility

During this group-development period, the moderator has to facilitate the task behaviors and deal with problems. Moderators can facilitate task behaviors by ensuring that each member

- shares knowledge and information,
- seeks and assimilates information,
- clarifies and elaborates information,
- evaluates information,
- synthesizes information,
- develops ways to accomplish tasks,
- gives assignments,
- solves tasks,
- tests solutions, and
- develops consensus and minority opinions.

While there are no ready-made rules for getting people to share information, some of the following techniques have proven effective:

- Encourage people to talk and respond.
- Be permissive. Make giving ideas easy.
- Try to keep ideas from being analyzed out of existence by giving them a fair hearing and comparing them against alternatives.
- Encourage a cooperative rather than a competitive environment by rewarding the group rather than the individual.
- Don't "pump" people too hard.
- Ensure that people restate and record ideas.
- Encourage a more thorough evaluation once most of the ideas have been expressed.

The next major task is to get people

to seek and assimilate information. This can be done in the following ways:

- Get people to ask questions and listen to the answers.
- Test group members' listening skills by getting them to clarify, restate, or summarize key points.
- Look for people to disagree before a point is made or to misunderstand the real point.
- Ask people for suggestions, opinions, or possible types of actions.
- Encourage suggestions that build on previous suggestions. Look for missing pieces of information and probe until there is a comprehensive range of ideas and each idea is complete.
- Encourage someone to play the role of "gatekeeper," one who encourages people to talk when information is needed and discourages them when ideas are poorly conceived.
- Continue to encourage this search-and-assimilate procedure until lesser ideas have fallen away and the group is left with a core of sound approaches.

Once these ideas emerge, the moderator must encourage behavior that clarifies and elaborates on the most promising suggestions. It is important to keep this discourse flowing until (1) the key ideas are defined, and many of the abstract concepts are reduced to more concrete operations; (2) the group members develop attitudes or positions towards these ideas; and (3) the ideas are developed with a focus and scope of related constructs or supporting elements.

Evaluating and Synthesizing Information

With the most promising ideas and solutions clarified and detailed, it is time to get the group to evaluate this information by thinking analytically, examining the important components of key information, and finding ways to test the validity of the ideas.

Next, the moderator should foster an information synthesis. Here, the task is to encourage people to think of concepts that relate the specific ideas already enunciated. If the problem cannot be solved by a conceptual or wholistic solution, break it into smaller parts and solve it step by step. When people offer suggestions, make sure they give examples.

Building a Consensus

After all relevant topics have been discussed, the moderator should get the group to sum up and develop a con-

sensus, if possible. The scorekeeping or summarizing should be done on a rational, participative, and democratic basis. If you cannot come to a consensus, identify and analyze the differences and the reasons for these differences. Sometimes more facts help, and a consensus can be obtained if the range for agreement is slightly broadened. If a consensus does not emerge, do not let the group force it. Accept minority opinions as well. The important thing is that the group take ownership of the summary position.

Group Maintenance

Aside from the problem-solving tasks, a host of group-maintenance tasks must be performed. The moderator and group members must encourage participation, perform the "gatekeeper's" tasks of stimulating the flow of good information and discouraging ineffective talk, and share leadership. They must listen and cooperate with each other but at the same time test the validity and logic of the information. They must work for the efficient use of time, develop problem-solving approaches, and recognize people's talents and knowledge.

Controlling Problem Behaviors

While implementing the small-group conference, both the moderator and the group must inhibit certain behaviors because they prevent goal accomplishment. For example, some people will take up valuable time by seeking recognition, giving irrelevant responses, interrupting others, constantly doubting, or pursuing a hidden agenda. They will discourage the contributions of others by attempting to outshine their peers or may fail to contribute at all because they drop out, are apathetic, or say "yes" to everything.

The best way to handle these problems is to determine and analyze the real reasons behind the disruptive behavior. The disruptive person may have conflicting interests or values or a different range of experiences.

For example, during a conference on the roles of project managers and contracting officers, one participant was disrupting all attempts to develop a consensus on project-management training for the contracting staff. Extensive probing and requests for explanations revealed that this participant, a contracting officer, was afraid that this training would later compromise his role as an independent

checker on the project manager. The disruptive behavior disappeared once the contracting officer was assured that his role was an independent one.

Recognition-seeking, pulling rank, and domineering behavior can often be controlled by subtly using the chairperson's powers, group pressure, or procedures to limit such behavior.

Exemplary behavior juxtaposed with intentionally negative examples can also provide effective models for controlling problem behavior. For instance, moderators (and group members) can praise courteous and patient behavior. They can intentionally interrupt somebody, then say, "I am sorry, I was very rude. I interrupted you." These techniques—plus subtle peer pressure—can effectively control interruptive and ill-mannered group members. Moderators can prevent other behavior problems by legitimizing roles for certain difficult-to-control behaviors. For example, constant doubters can be kept off the floor or otherwise occupied until the time is right for constructive criticism. The same can be done with outstanding performers who outshine the group: They can be used to help monitor or facilitate the activities of others. They should not be given a chance to solve the problem until everyone else has had a chance.

The most difficult role for the moderator is conflict resolution. Conflicts can be smoothed over by reaching an agreement on a more abstract and nonthreatening level. They can also be handled by getting each party to give a little until they reach mutual satisfaction, ignoring the conflict, forcing one of the warring parties to yield, or analyzing differences in an open discussion. Emphasis should be on facts, statements of concrete behavior, tactful suggestions, and respect for each other's feelings. Often, this approach can yield a lasting resolution.

* * * * *

The group and the moderator cannot expect to come out ahead on every issue all the time. However, if the situation is right, the agenda well-conceived, the moderator skillful, and the group reasonable, the small-group conference can almost always yield results comparable to those derived by more traditional evaluation techniques.

A Week's Worth



Jerry F. Wilburn

Mr. Wilburn is an evaluator in the fraud prevention and oversight group of the Accounting and Financial Management Division (AFMD). He came to GAO in 1979, bringing to the Claims Division a background of over 16 years in the credit bureau and collection agency industry. Mr. Wilburn was instrumental in initiating legislation and implementing regulations for reporting debtors to credit bureaus. He also organized and chaired a joint government/industry debt collection conference. In 1983, Mr. Wilburn joined the GAO Fraud Hotline staff, and since 1984 he has had various auditing assignments in AFMD. Mr. Wilburn holds a bachelor's degree in government science, with course concentrations in public administration and psychology, from American University. He is currently pursuing a master's degree in public administration at George Mason University in Virginia.

Monday

What could be more rich with possibilities than an interview with a branch chief of an agency being audited by GAO who is also a former GAO employee herself? I imagine alternative outcomes, certain to set a quick pace for the week. Mondays, however, are usually a little slow to start. Perhaps that's because I'm just coming off a weekend, softened up by three young sons and suburbia's demands which, incidentally, began at 6:45 a.m. on Saturday morning with liming the local school's soccer field.

Today's interview is part of our work on a congressional request to review nonstatutory inspector general (IG) roles at several agencies. About 2 years ago, we surveyed 41 agencies to assess whether their work was suffi-

ciently independent to contribute to agency efficiency. We are now updating this information on four of the agencies: the Office of Personnel Management, the Federal Emergency Management Agency, the National Science Foundation, and the Farm Credit Administration.

By 9 a.m. I have refined my list of questions for the interview, and by 10, I am back at my desk after a positive meeting. My colleague and I were able to discuss in detail some of the complexities of the IG staff's work because we each have a perspective from the "other side of the fence." In fact, my notes are so extensive that it is mid-afternoon before I finish the write-up.

I still have plans to visit that agency's head cashier to request a list of all imprest funds. She cooperates readily and even raises some questions of her own. I am able to direct her to the GAO staff member who can respond best to her inquiries.

The late afternoon is a good time to do necessary audit and investigation reading, pulled together for us by agency staff. It is always interesting and, I believe, natural to compare an IG audit or investigation report with a GAO report. One would expect the products to be similar, and, indeed, there are many examples of good work.

Shortly before my 5:30 departure, I take time to prepare my weekly "to-do" list. As an instructor of time management for the Office of Organization and Human Development (OOHD), I follow my own teachings. Normally, I prepare my weekly list and make daily revisions in the morning, since I tend to be more realistic and less optimistic then. It's now time to make the trek to Virginia, gather the flock, and transport them to the Little League baseball field.

Tuesday

Traversing Route I-66 this morning at 6 a.m., I readily determine that it's going to be another glorious Washington spring day. Soon, I'm in the office space we've been assigned by the agency, a terrific location—actually, a suite formerly occupied by a political appointee—on the top floor. A window overlooks the Capitol. Our office is near the IG staff offices, site of my interview yesterday.

After reviewing my "to-do" list, I dig into the foot-high stack of IG semi-annual reports, audit plans, and procedural manuals. After reading for 2 hours, I depart for the Hill for an oversight hearing on our host agency. The hearings are a continuation of others held last year by an outgoing chairman, and the agency director and the inspector general are both scheduled to testify. Because the hearings continue until 6:30, I am almost late for the next item on my agenda. I am just able to get the boys to batting practice and home for dinner, so I can make the cub scout executive committee meeting by 8:30. As assistant cub master, I am primarily a resource person, yet I need to stay informed and involved. I'm home by 11, just in time to catch the news. Then I'm off to bed.

Wednesday

First on my agenda this morning is the challenge of writing the contact memo on yesterday's hearings. The real art, I've learned is condensing some 40 pages of notes into a one-page memo. After seven phone calls and several drop-in visitors, I finish the memo by 10. During the rest of the morning, I meet individually with the two host agency branch chiefs, the assistant IG for audit and the assistant IG for special projects, to identify and classify "problem" audits. Each meeting goes well and by noon I have the information I need. After lunch, I begin my review and analysis of the audits, which occupy the balance of my workday.

Thursday

This morning, I am to meet with a GAO manager who is overseeing a job at another site and temporarily assuming *his* manager's responsibilities for several other jobs. After we review the relevant workpapers, we head for separate offices, he to a Hill meeting with the committee staff that requested the nonstatutory IG review and I to a GAO Employee Association meeting. I am treasurer of the association and Friday store manager. The association arranges a wide variety of

See *Week's Worth*, pg. 59

Bookmark

'Accounting for Software'

By Robert McGee

Dow, Jones-Irwin, Homewood, Ill.
1985

In this age of complexity, it is a pleasure to find complete coverage of a topic in one readable book. *Accounting for Software* is such a book. It thoroughly covers the many issues and problems involved with the accounting treatment of ADP software.

The need to provide separate accounting for hardware and software is relatively new. Prior to 1969, the various mainframe computer manufacturers wrote virtually all the software. They provided everything—hardware and software—in one bundle. The purchaser paid a single price for the entire package. Because hardware and software costs were indistinguishable, both were accounted for as a single entity. If any custom programming was done, company employees did it, and the costs were generally immaterial.

In June 1969, International Business Machines decided to unbundle and price separately the hardware-software package. For the first time, ADP users could identify software costs and have the option of writing the software themselves or purchasing it from the hardware manufacturer or the emerging software industry. If users elected to develop their own software, the costs would become material because of project magnitude. Inasmuch as software costs are now identifiable and material, they must be recognized on financial statements. The controversy and ambiguity about how this should be done, and the author's recommendations, are the topic of *Accounting for Software*.

Survey Results

This is an academic book, written as part of McGee's doctoral program. Almost two thirds of the text consists of tables showing the results of surveys and comparative studies. These studies include two surveys of software vendors to determine their accounting policies for recognizing costs and revenues, two similar surveys of software users, and a study of the effects software accounting policies have on banks' lending decisions. The

usefulness of these 85 pages of research results is hampered, however, because, in some cases, there is no overall summary of results. For example, a survey of the revenue and cost-recognition policies of 56 software vendors simply lists the accounting policies as extracted from the financial statements. No attempt is made to group or classify the policies and indicate how many firms used each category. In contrast, the survey on the "Effects of Software Accounting Policy on Bank Lending Decisions" is well summarized, and the author concludes that "a company that capitalizes software costs will find it easier to raise debt capital than will a company that expenses these costs."

Core Chapters

The first and last chapters are, in my opinion, the heart of this book. In the first chapter, the author defines the problem in accounting for software which is, essentially, whether software costs should be capitalized or expensed. He then discusses all the current financial accounting rules applicable to the topic and notes their deficiencies. He illustrates how software vending companies use the lack of definitive accounting rules to contaminate their statements with what Professor Abraham Briloff calls C.R.A.P. (cleverly rigged accounting ploys). The author tells how companies have entered into sham agreements that result in the capitalization of software costs as research and development rather than treating software costs as current expenses. For example, one company that capitalized software costs reported profits of \$2.2 million in 1981 and \$2.5 million in 1982, profits that would have been losses of \$1 million and \$4 million, respectively, if those costs had been expensed. The author concludes the chapter with his recommendations for software accounting practices.

The final chapter, entitled "Taxation of Software," is actually a compendium of court cases mostly relating to the Internal Revenue Service and state tax authorities' taxation of software. Topics reviewed include the legal definition of software (whether it is tangible or intangible), cases involving

the Uniform Commercial Code, and, finally, cases involving data processing service bureaus.

So, what is the bottom line for a GAO evaluator? From our perspective, there is no discussion of the Federal Procurement Regulations and whether they have any impact on the issue of software accounting for a company dealing with the federal government. However, if the issue of software accounting ever does come up, or you are looking for a source of criteria in this area, McGee's book is the source to which you can turn. The first chapter, in particular, provides a clear, easy-to-understand summary of the accounting pronouncements—actually the lack of adequate pronouncements—that apply to accounting for software.

John McIlwaine
*Information Management
and Technology Division*



Judith Hatter

A Note of Praise

The GAO is a nonpartisan arm of the U.S. Congress. It is not represented by Democrats or by Republicans. The General Accounting Office has a reputation of accuracy and integrity that is unmatched by any agency of the Federal Government . . .

noted Congressman Bill Alexander of Arkansas, in reference to GAO's role in recounting the ballots of the contested 1984 election for the House seat for the 8th Congressional District of Indiana. [*Cong. Rec.*, Vol. 131 (Mar. 5, 1985), p. H1015.]

Sentencing Guidelines

That portion of Public Law 98-473, Oct. 12, 1984, 98 Stat. 1837-2199 pertaining to crime control includes the addition of a new Chapter 58—United States Sentencing Commission—to Title 28 of the United States Code. The Commission is required to promulgate guidelines for use by a sentencing court in determining the sentence to be imposed in a criminal case. GAO must study the guidelines' potential impact in comparison with the operation of the existing sentencing and parole release system. The sentencing guidelines will not go into effect until GAO has, within 150 days of submission of guidelines, reported to the Congress the results of its study.

Four years after the sentencing guidelines go into effect, GAO is to undertake another study of guidelines in order to determine their impact and compare the guidelines system with

Legislative Developments

the operation of the previous sentencing and parole release system.

Foreign Industrial Targeting

The "Trade and Tariff Act of 1984" (P. L. 98-573, Oct. 30, 1984) requires the Comptroller General to report to the Congress not later than June 1, 1985, the results of a comprehensive study of foreign industrial targeting. Industrial targeting is described by the law as occurring when foreign governments adopt plans or schemes of coordinated activities to foster and benefit specific industries."

State Justice Institute

Public Law 98-620, Nov. 8, 1984, 98 Stat. 3335 contains at Title II the "State Justice Institute Act of 1984." This title establishes a private, nonprofit corporation to be known as the State Justice Institute. The financial transactions of the Institute for any fiscal year during which federal funds are available to finance any portion of its operations may be audited by GAO in accordance with rules and regulations prescribed by the Comptroller General.

GAO's Protest Function

The Comptroller General testified on the constitutionality of GAO's protest function on February 28 at hearings before the Subcommittee on Legislation and National Security of the House Committee on Government Operations.

GAO's new bid protest regulations—as a result of the "Competition in Contracting Act of 1984" (P. L. 98-369)—are printed in the *Federal Register* of February 20, 1984, beginning on page 49417.

The constitutionality of the procurement protest system has been placed in issue in the case of *Lear Siegler, Inc., etc. v. John Lehman, etc., et al.*, filed in the United States District Court for the Central District of California. The law is being tested in other courts as well.

Cost Savings Disclosure Awards

On February 26, the House of Representatives passed, under suspension of the rules, H.R. 607, to provide for a continuation of the authority to pay cash awards to federal employees for certain cost-saving disclosures. The bill includes a requirement that the Comptroller General report to the Congress before March 16, 1988, on the effectiveness of the awards program and whether it should be continued.

Displaced Salvadorans

Congressman Joe J. Moakley of Massachusetts introduced H.R. 822 to provide for a GAO investigation and report on conditions of displaced Salvadorans. Subsequently, Senator Dennis DeConcini of Arizona introduced a companion measure, S. 377.

Federal Coal Leasing Amendments of 1985

S. 372, the "Federal Coal Leasing Amendments of 1985," would require GAO to monitor management, supervision, and enforcement relating to the leasing and production of coal on lands subject to the "Mineral Lands Leasing Act" for a period of 5 years after enactment of the bill into law. Two other bills are before the Congress: H.R. 1898 includes the same reporting requirement; S. 570 does not include a reporting requirement. All three bills include negotiation of lease sales.

Technical Data Management

The "Department of Defense Authorization Act of 1985" requires the secretary of Defense to develop a plan for an improved system for the management of technical data relating to any major system of the Department of Defense. Not later than 18 months after the date of enactment of the law, the Comptroller General is to evaluate the secretary's plan and report to the Congress.

GAO Staff Changes

Senior Staff Changes



Hugo B. Becker

Mr. Hugo B. Becker joined GAO as Assistant to the Assistant Comptroller General for Operations on March 3, 1985. He has more than 30 years' experience in management and management consulting. Before joining GAO, Mr. Becker was president of Kappa Systems, Inc., a professional contract-services company principally engaged in providing contract services to federal and state governments in resource planning, program planning and evaluation, operational analysis, systems design, social research, technical assistance, and program-management support. In 1966, Mr. Becker joined Arthur Young & Company, a management-services organization; he retired as a partner in 1983. Mr. Becker has had experience in the aerospace, wholesale distribution, and property and casualty insurance fields.

Mr. Becker received a B.S. degree in business administration from the University of California at Berkeley in 1951. He is a professional industrial engineer with the State of California and a certified management consultant affiliated with the Institute of Management Consultants.



Philip A. Bernstein

Mr. Philip A. Bernstein, deputy director for operations, Human Resources Division (HRD), retired from GAO on February 2, 1985.

Mr. Bernstein, a 1958 graduate of George Washington University, joined GAO in 1960 and served in the former Civil Division. In 1972, he directed GAO's work at the former Atomic Energy Commission, served briefly in the newly formed Resources and Economic Development Division and then became regional manager in Seattle. In 1976, Mr. Bernstein returned to headquarters as deputy director of management services and in 1978 moved to HRD as deputy director. He has received numerous awards, including the HRD Director's Award.



Marvin Colbs

Mr. Marvin Colbs, manager of the Atlanta Regional Office, retired from GAO on February 2, 1985.

Mr. Colbs joined GAO in 1955 after 5 years in public accounting in Philadelphia. He reviewed Air Force programs and activities and national defense issues and had world-wide responsibility for GAO's reviews of supply management, logistics, and readiness. He had been Atlanta Regional Office manager since 1972 and was responsible for conducting GAO's work in Alabama, Florida, Georgia, South Carolina, and Tennessee.

Mr. Colbs received a bachelor's degree in accounting from Temple University in Philadelphia and a master's degree in international affairs from George Washington University. He completed a 10-month resident program in national security affairs at the National War College in Washington in 1969, a program for senior managers in government at Harvard University in 1975, and the Strategic Human Resources Management Program at Duke University in 1983.

He is a member of the Georgia Society of CPAs and a past president of the Atlanta chapter of the Association of Government Accountants. For the last 12 years, he has served as chairman of the Southeastern Intergovernmental Audit Forum.



Gene L. Dodaro

Mr. Gene L. Dodaro was promoted from the Executive Candidate Development Program to associate director for management reviews, General Government Division, on March 31, 1985.

Mr. Dodaro, who joined GAO in 1973, has participated in evaluating the implications of changing Puerto Rico's political status, federal antirecession assistance for state and local governments, immigration and naturalization issues, and licensing users of radioactive materials. Most recently, he codirected GAO's work on block-grant programs.

Mr. Dodaro majored in accounting at Lycoming College in Pennsylvania, where he received a bachelor of arts degree in 1973. He is a member of the American Society for Public Administration and has received numerous awards, including GAO's Meritorious Service Award in 1981 and an Office-wide Special Award in 1983.



J. William Gadsby

Mr. J. William Gadsby was promoted from the Executive Candidate Development Program to associate director for management reviews, Human Resources Division (HRD), on March 31, 1985. Mr. Gadsby joined GAO in 1963 and has participated in and supervised reviews at numerous agencies, including the then-Department of Health, Education, and Welfare; the Atomic Energy Commission; and the Veterans Administration. In addition, he was assigned as a staff member to the Joint Committee on Atomic Energy in 1969. For a 1971 assignment with the House Committee on Interstate and Foreign Commerce, he participated in a major study of the securities industry. In 1972, Mr. Gadsby joined the Office of Management and Budget and worked in the financial management and grant management areas. He returned to GAO in 1976 and served as an audit manager and group director in HRD. In 1982, Mr. Gadsby became codirector for GAO's Office-wide study of block-grant implementation; he served in that capacity until entering the Senior Executive Service candidate program in 1984.

Mr. Gadsby graduated from the University of Rhode Island in 1963 with a B.S. degree in accounting. He is a certified public accountant in the District of Columbia and has received numerous awards for his work at GAO.



William J. Gainer

Mr. William J. Gainer was promoted from the Executive Candidate Development Program to associate director for employment, training, and education, Human Resources Division, on March 31, 1985. He joined GAO in 1973 as a systems analyst in the former Financial and General Management Studies Division, where he performed various assignments, including several on military manpower. When the Program Analysis Division was formed, Mr. Gainer moved there to work on housing, international, and labor-related studies. Since 1980 he has been an issue-area planning director and group director for housing studies with the Resources, Community, and Economic Development Division.

Mr. Gainer received a B.S. degree in mathematics from the University of Akron in 1966 and an M.A. in mathematics from Kent State University in Ohio in 1968. He has taught mathematics at Kent State and served as a first lieutenant in the Chemical Corps of the U.S. Army.

He received the Meritorious Service Award in 1983, an Outstanding Achievement Award in 1984, and several other awards during his GAO career.



Werner Grosshans

Mr. Werner Grosshans was appointed director of the Office of Program Planning on February 3, 1985.

Mr. Grosshans began his career as a government auditor in 1958 in the San Francisco Regional Office. He was appointed assistant regional manager in 1967. In July 1970, he transferred to the U.S. Postal Service as assistant regional chief inspector for audits. In this position, he was responsible for audits in the 13 western states. In October 1972, he returned to GAO in the former Logistics and Communications Division. In 1980, he was appointed deputy director of the former Procurement, Logistics, and Readiness Division, and, in 1983, was appointed director of planning in the newly created National Security and International Affairs Division.

Mr. Grosshans graduated from San Jose State University in 1958 with a major in accounting. In 1969, he completed a 10-month residence course at the Industrial College of the Armed Forces and a master's degree in business administration from George Washington University. He attended Harvard University's Executive Program in National and International Security in 1983.

Mr. Grosshans is a CPA (California) and a member of the California Institute of CPAs and the Northern Virginia Chapter of the Association of Government Accountants. He received a Meritorious Service Award in 1981 and the Division Director's Award in 1982.



Walter H. Henson

Mr. Walter H. (Dick) Henson retired as manager of the Seattle Regional Office on March 1, 1985. He had 28 years of service with GAO.

Mr. Henson served in the U.S. Army from 1946 through 1951. In 1954, he received a B.S. degree in accounting from the University of Illinois. From 1954 to 1957, he was employed by Price Waterhouse & Company. He joined GAO in 1957, working in the Seattle Regional Office through 1964. Mr. Henson then served as regional manager in New Orleans (formerly a regional office) from 1965 to 1970 and in Norfolk from 1970 to 1975. He served as deputy director of the former Field Operations Division from 1975 to 1979 and in 1979 was appointed regional manager in Seattle.

Mr. Henson is a certified public accountant (Washington) and a member of the American Institute of Certified Public Accountants and the Washington State Society of Certified Public Accountants.

Mr. Henson attended the Executive Development Program at Stanford University's Graduate School of Business in 1964. He received the Comptroller General's Group Honor Award in 1973, the GAO Distinguished Service Award in 1974, and the Field Operation Division Director's Award in 1979.



Louis W. Hunter

Mr. Louis W. Hunter retired from GAO on December 30, 1984. In 1979, he was assigned by GAO to the Treasury Department to organize and develop a project for the United States-Saudi Arabian Joint Commission on Economic Cooperation. In this capacity, he advised and assisted the Saudi Arabian equivalent of GAO.

He joined the San Francisco office of the former Corporation Audits Division in 1951, having spent the previous 9 years in public accounting.

Early in his GAO career, Mr. Hunter was assigned to the Bureau of Reclamation and the Corps of Engineers. In 1954, he headed the team that first audited the newly established government of American Samoa and the Trust Territories of the Pacific.

Mr. Hunter was assigned to the European Branch in Paris between 1956 and 1958; he then headed the audit of what is now the Department of Housing and Urban Development from 1960 to 1964. He joined the newly established International Division in 1965, becoming associate director of that division in 1967. From 1970 to 1972, he headed the New Delhi Office and was director of the European Branch from 1973 to 1974.

Mr. Hunter, a graduate of Golden Gate College in California, is a certified public accountant (California). He completed the Advanced Management Program at Harvard University's School of Business Administration in 1964.



Joseph W. Kegel

Mr. Joseph W. Kegel, manager of the Chicago Regional Office, retired from GAO on April 27, 1985.

Mr. Kegel joined GAO in Washington in 1959. During the early years of his career, he served on a series of assignments with civil agencies and rose to the position of assistant director with the former Civil and Community and Economic Development Divisions. In 1973, Mr. Kegel transferred to Seattle as an assistant regional manager. He was selected to be the Chicago regional manager in 1978.

Mr. Kegel served in the Navy from 1952 to 1956. He received a bachelor of science degree in accounting from King's College in Pennsylvania. In addition, he completed the Executive Management Program at Penn State.

He was chairman of the Midwest Intergovernmental Audit Forum for several years.



Joseph E. Kelley

Mr. Joseph E. Kelley was promoted from the Executive Candidate Development Program to associate director for development assistance in the National Security and International Affairs Division (NSIAD) on March 31, 1985. He joined GAO in 1959, working first in the former Civil Division, then transferring to the International Division upon its creation in 1963. Mr. Kelley served in the European Branch as assistant director and, in 1983, was named acting associate director of the Navy subdivision of NSIAD. In July 1984, he was designated acting associate director of the development assistance subdivision.

Mr. Kelley graduated from St. Francis College in Pennsylvania with a B.S. degree in accounting. He also attended the Program for Management Development at Harvard University's Graduate School of Business and the Federal Executive Institute's Senior Executive Education Program. He completed the Industrial College of the Armed Forces' national security management correspondence course. He is a member of the Association of Government Accountants. Mr. Kelley received the GAO Meritorious Service Award in 1981 and the International Division Director's Award in 1983.



William J. McCormick, Jr.

Mr. William J. McCormick, Jr., resigned from GAO in January 1985 to do consulting work with real estate and property-service franchising operations. Mr. McCormick was director of the Personnel Systems Development Project from October 1983 to January 1985. Previously, he was in charge of the task force that developed GAO's national recruitment program.

Mr. McCormick joined the Los Angeles Regional Office in 1962 after graduating from California Western University, San Diego. While in Los Angeles, he served in a variety of positions, including professional development coordinator.

In 1972, Mr. McCormick transferred from a senior audit manager position in Los Angeles to the Organization and Management Planning Staff (OMPS) in Washington, D.C. He served as assistant director, organization development, and director, planning and analysis staff, before being promoted to director, OMPS. In March 1979, he was reassigned to the position of associate director (management policies) in the Federal Personnel and Compensation Division.

Mr. McCormick received GAO's Career Development Award in 1971, a Meritorious Service Award in 1975, and Director's Awards in 1977 and 1982. He is a member of the Academy of Management, the American Society for Public Administration, the Evaluation Society, the International Personnel Managers Association, and the Federal Executive Institute Alumni Association. In May 1977, he received his M.B.A. from George Mason University in Virginia. He is currently a doctoral candidate at the University of Southern California.



Raymond T. Olsen

Mr. Raymond T. Olsen joined GAO on March 3, 1985, as Assistant to the Assistant Comptroller General for Operations.

Former president of Public/Private Enterprises, Inc., Mr. Olsen has 30 years' experience as a government manager and provider of professional consulting services to governments. During the past 2 years, he developed a series of microcomputer-assisted management analysis systems to support high-level government decision-making.

For 13 years, he was responsible for Peat, Marwick, Mitchell & Company's government services consulting practice, directing the delivery of professional services through 100 offices nationwide. He also managed the firm's quality assurance reviews, strategic planning, staff development, and development of professional practice guides and tools.

Prior to joining Peat, Marwick, Mitchell & Company, Mr. Olsen served two governors as director of the Minnesota State Planning and Local Affairs Agency, overseeing policy management and organizational development. During that time, he was also an assistant professor on the University of Minnesota School of Public Affairs graduate school faculty.

Formerly, Mr. Olsen had served as city manager of Prescott, Arizona, and Bloomington, Minnesota.

Mr. Olsen, a certified cost analyst, holds a master's degree in public administration from the University of Minnesota. He has been a frequent speaker at national and state conferences of government officials and is coauthor of the book, *Managing Public Resources*.



Jack Wheeler

Mr. Jack Wheeler was appointed director, Office of Information Resources Management, on April 28, 1985.

Mr. Wheeler joined GAO on June 3, 1984, as special assistant to the Information Management and Technology Division director, advising on advanced methodology and training matters. He has over 20 years of private-sector experience in ADP systems and management. In his 16 years with the accounting firm of Arthur Young & Company, Mr. Wheeler held positions in the computer-auditing and management-information systems fields. In 1980, he began coordinating information-systems planning to meet Arthur Young's long-range operational and management-information needs. From 1976 to 1980, he was national director of Arthur Young's computer-auditing program and helped develop the firm's computer-related fieldwork performance guidelines and quality assurance program.

Mr. Wheeler, who graduated from Boston University's College of Business Administration with a degree in accounting, is a certified information systems auditor. He served on the American Institute of Certified Public Accountants Task Force on Computer Fraud Review from 1979 to 1981.



Richard W. Gutmann

Mr. Richard W. Gutmann, who retired from GAO in 1982 as director of the former Procurement and Systems Acquisition Division, died June 16 at the Veterans Administration Hospital in Martinsburg, West Virginia. He was 63.

After joining GAO in 1954, Mr. Gutmann headed the former Defense Office and the European Branch. From 1967 to 1968, he worked in Frankfurt, West Germany. A certified public accountant, he received numerous awards for outstanding performance during his 27-year GAO career.

A resident of Falls Church, Virginia, Mr. Gutmann was born in Elizabeth, New Jersey. He was a Navy aviator in World War II and served in the Pacific. He attended Rutgers University in New Jersey and received a bachelor's degree in business administration from George Washington University. He also attended the Harvard University Business School and the Federal Executive Institute.

SES Reassignments

Name	From	To	Title / Area of Responsibility
Coffey, Kenneth J.	NSIAD	NSIAD	Director, planning staff
Ferber, Martin M.	NSIAD	NSIAD	Associate director (manpower, reserve affairs, and logistics)
Franklin, Arley F.	OOHD	ACG/HR	Special Assistant to the Assistant Comptroller General for Human Resources

SES Promotions

Name	Title	Promoted From ES Level	Promoted To ES Level
Adair, John J.	Associate director, AFMD	2	3
Baine, David P.	Associate director, HRD	2	3
Bowlin, Samuel W.	Director, European Branch	3	4
Cherbini, John R.	Associate director, AFMD	3	4
Davis, Richard A.	Associate director, NSIAD	2	3
Densmore, Edward A.	Deputy director for planning and reporting, HRD	4	5
Ferber, Martin M.	Associate director, NSIAD	1	3
Finley, Harry R.	Associate director, NSIAD	3	4
Goldstein, Ira	Deputy director, HRD	4	5
Gryzkowicz, Michael	Associate director, RCED	2	3
Hagenstad, M. Thomas	Director, OCR	4	5
Krueger, Oliver W.	Associate director, RCED	3	4
Layton, Fred D.	Regional manager, Philadelphia Regional Office	3	4
Luke, John H.	Associate director, RCED	1	3
Math, Paul F.	Associate director, NSIAD	2	3
McCabe, Joan M.	Associate director, NSIAD	1	3
Simmons, Craig A.	Associate director, GGD	1	3
Wisler, Carl E.	Associate director, PEMD	3	4

New Staff Members

The following new staff members joined GAO during the approximate period January to March 1985.

Division/Office	Name	From
Office of the General Counsel	Fitzmaurice, Edward L. Williams, Paula A.	Congressional staff General Services Administration
General Government Division	Matthews, Linda A. Spraggins, Martha	Dept. of the Army Dept. of Labor
General Services and Controller	Curtarello, JoAnn	U.S. Army
	Giarusso, Keith	Virginia Health Department
	Hogue, Rennese	Naval Telecommunications Command
	McKee, Jewel	Private industry
	Stead, Ingrid	Private industry
	Towler, Faye	General Services Administration
Human Resources Division	Beauregard, Barbara	Capital Surveys, Inc.
	Doughty, Sherri	American University
	Elston, Patricia	National Association of Counties
	Jensen, Ann Marie	Private industry
Information Management and Technology Division	Radish, Ellen	Private industry
	Budney, Linda	Pension Benefit Guaranty Corp.
	Burns, Dennis	Self-employed
	Castro, Ernesto	Co-op conversion
	Daly, Patricia	Dept. of Labor
	Jacobson, Steve	Mitre Corporation
	Johnson, Tracye	Dept. of Energy
	Kos, Teresa	Western Maryland College
	Linko, Steven	Dept. of the Treasury
	Martin, Joseph	Not specified
	McLernon, Steve	Virginia Tech
	Mobray, William	Government Printing Office
	Nichols, Leevester	Dept. of Energy
Perez, James	University of Miami	
Peterson, Beverly	Hamer, Siler, George/Gould Assoc.	
	Reich, Steve	University of Michigan
	Robinson, Thomas	Social Security Administration
	Simmons, Nancy	Dept. of Justice
	Wyeth, Nancy	Not specified
Joint Financial Management Improvement Program	Comtois, Charlene	Private industry
National Security and International Affairs Division	Mason, Nadine Y.	General Services Administration
Personnel	Cuneo, Gina L.	Dept. of Housing and Urban Development
	Galimore, Barbara J.	Virginia State University

Division/Office**Name****From**

	Hackley, Jessica A.	Office of the Special Counsel, Merit Systems Protection Board
	Kagan, Philip	Office of Personnel Management
	Lanham, Barbara L.	F.B. Gwynn Educational Center
	McBride, Laura	Conversion from temporary appointment
	McNeill, Maxine	Conversion from temporary appointment
	Miles, Sheryl	Dept. of Agriculture
	Pizzigno, Vincent F.	Private sector
	Pricci, Ann L.	Dept. of Transportation
	Saunders, Calvin M.	Defense Mapping Agency
	Yancy, Terri R.	Dept. of the Navy
Resources, Community, and Economic Development Division	Chagnon, Mary	Mt. Wachusett Community College
	Crowner, Evelyn	Bowie State College
	Robinson, Cynthia	Anderson Brothers Bookstore, Inc.
	West, Doretha	Dept. of the Treasury
	Younger, Frances	Dept. of Health and Human Services
Regional Office		
Atlanta	Bachmann, Debbie A.	Georgia State University
	Morrison, James L.	University of South Florida
Boston	Cook, Marcia M.	Private industry
	DeLuna, John E.	University of Corpus Christi
	Effenson, Maxine	Emerson College
	Preston, Donna D.	Private industry
	Sullivan, Michael E.	Co-op conversion
Cincinnati	Schmenk, Marianne E.	Miami University
Dallas	Boyles, Steven D.	North Texas State University
	Escalante, Luis, Jr.	Southwestern University
	Frazier, Ida	Dept. of the Navy
	Harkins, David P.	Baylor University
	Jackson, Evelyn J.	East Carolina University
	Jennings, Dee Ellen	Oklahoma College of Business and Technology
	Mahagan, Leslie V.	University of Kentucky
	Malavenda, Gary M.	St. Thomas University
	Meng, Michael P.	University of Iowa
	Nichols, Merrie C.	University of Texas
	Rockhold, Rick L.	University of Iowa
	Scales, Jacqueline D.	Dept. of State
	Schwartz, David T.	Texas Christian University
	Sullivan, Joan T.	Suffolk University
Denver	Cheeseboro, Patricia	Small Business Development Center

New Staff (cont.)

Regional Office	Name	From
Denver	Guzzetti, Cynthia A. Ichiba, Karen Rae Kirkland, Mae D. Moore, Mary Ann	Environmental Protection Agency Colorado University U.S. Air Force Dept. of Health and Human Services
	Tenorio, Lucilla E. Ulrich, Vivian A.	Denver Police Dept. Telecommunications, Inc.
Kansas City	Foehrkolb, Kevin Light, Frederick Lincoln, Robin	Illinois Central Gulf Railroad Missouri Dept. of Revenue Macy's
Los Angeles	deCastro, Mike Hamilton, Bud Lewis, David	California State University California State University California State Polytechnic University
	Mackey, Mary Moran, Anthony	Arizona State University University of Southern California
Norfolk	Cogdell, Carleen	Norfolk State University
	Duvall, Glenn	East Carolina State University
	Martin, Robert	East Carolina State University
	Poole, Charlotte	East Carolina State University
	Walker, Charlesena	Private industry
Philadelphia	Abdullah, Al-Bashar	Co-op conversion
	McCauley, Sondra	Georgetown University
	Page, Bonita	University of Pittsburgh
	Ragone, June	Co-op conversion
	Shanis, Harry	University of Missouri
San Francisco	Buchert, Eugene	Not specified
	Doring, Ernest	San Francisco State University
	Frye, Christine	Fresno State University
	Lenida, Lisa	San Francisco State University
	Townsend, Ken	Bureau of Reclamation
	Zweig, Robert	Stanford University
Seattle	Pohlman, Winnifred	Private industry
	Saiki, Terence	Dept. of Commerce
	Seymour, Juanita	Seattle First National Bank
Washington	Benton, Gregory	Co-op conversion
	Biescas, Elena	Trinity College
	Chasson, Jon	Congressional Research Service
	Chow, Martha	Carrier Corp.
	Conlon, Tracy	Not specified
	Cortese, Steven	Georgetown University
	Demoret, Linda	Dept. of the Army
	Gobin, Maria	Marymount College
	Kim, Susie	University of Kentucky
	Levie, Lise	University of Pittsburgh
	Lyons, Anne	The Urban Institute
	Marek, Eileen	University of Delaware
	Price, John	Indiana University

Regional Office	Name	From
Washington	Reed, Walter	University of Maryland
	Reid, Jacquelyn	Winston-Salem State University
	Schechterman, Steven	University of Virginia
	Smithwick, Karen	Old Dominion University
	Wiesner, Gail	Johns Hopkins University

Attritions

The following staff members left the agency during the approximate period from January to March 1985.

Division/Office	Name
Accounting and Financial Management Division	Pauley, Barbara D.
Office of the General Counsel	Kopocis, Kenneth L.
	Lotkin, Ralph L.
	Sherrod, Ruby
	Wotherspoon, William A.
General Government Division	Baca, Teofilo
	Jones, Jennifer L.
	Turman, Cheryl R.
	Wagoner, Teresa A.
General Services and Controller	Barber, Patricia
	Berry, Cheryl
	Dudley, Cathy
	Hutchinson, Angi
Human Resources Division	Heintze, Robert
	Hemphill, Arlinda
Information Management and Technology Division	Beiter, Robert
	Bernhardt, Preston
	Cobb, Janet
	Conyers, Lee
	Crooks, Diane
	Crowder, Carol
	Harmon, Robert
	Heppe, Christopher
	Hollingsworth, Loretta
	Homerding, Lynda
	Kent, David
	Lilley, Nancy
	Niner, Patricia
	O'Neal, Rhonda
	Parker, Florence
Price, Robert	
Ritornato, Michele	
Skane, Albert	
Stone, Glenda	
Tolzman, John	

Attritions (Cont.)

Division/Office

Name

	Vigue, Diane Ware, Sally
National Security and International Affairs Division	Glover, Debra R. Hodulick, David M. Jasnoff, Zachary L. Price, William H., Jr. Spencer, Frances E.
Personnel	Beard, Nina C. Miles, Sheryl Vernon, Dorothy E. Walton, Darlene G.
Resources, Community, and Economic Development Division	Clark, Garrette Livingston, Patricia Matthews, Leisa Penn, Rosa
Regional Office	
Atlanta	Cucarola, Lana King, Regina Smith, Ronald
Boston	Hamilton, Roger K. Thibeau, Phillip B.
Chicago	Dunlap, Lennette Saafir, Norma
Dallas	Redding, Anne Marie Sasser, Sue
Denver	Guthrie, Ronald J. Rodriguez, Frances M. Swihart, Betty A.
Detroit	DeChellis, Gloria Mazur, Linda
Norfolk	Chrislip, Deborah Reardon, Ralph
Philadelphia	Perren, Cheryl
San Francisco	Benson, Shirley Warren, Tina
Seattle	Arns, Renee
Washington	Balkin, Jan Cabrera, Lionel Hittner, Harvey

Regional Office**Name**

Washington

Jackson, Marsha
Myers, Donald
Shaller, Morris**Retirements****Division/Office****Name****Title**

Office of the General Counsel

Carson, Jean C.

Supervisory writer-editor

General Government Division

Cole, Lucille A.
Kline, Joseph J.Secretary
Supervisory evaluator

General Services and Controller

Mendelson, Lillian
Taylor, ArthurVoucher examiner
Technical information specialistNational Security and
International Affairs DivisionAbts, James D.
Smith, Clarence O.Supervisory evaluator
Supervisory evaluator

Personnel

Dick, Donnie L.
Totaro, Lula A.Supervisory personnel manage-
ment specialist
Administrative officer**Regional Office**

Boston

Machakos, Constantine

Evaluator

Dallas

Candilora, Ernie
Lozano, Gilbert
Lyons, Fred E.
Smith, Dempsey
Stafford, James N.Evaluator
Evaluator
Assistant regional manager
Evaluator
Assistant regional manager

Denver

Lowery, Bernard L.

Senior evaluator

Detroit

Gellner, John

Evaluator

Kansas City

Burrow, Arnett E.
Ziombra, JohnSupervisory evaluator
Evaluator

Norfolk

Brennan, Edna
Everton, Jack
Windschitl, JamesEvaluator
Senior evaluator
Evaluator

Philadelphia

Milici, Joseph N.
Sobieski, Henry J.Evaluator
Evaluator

Seattle

Martin, Jean

Writer-editor

Deaths

National Security and International Affairs Division

John J. Simon, a former evaluator in the National Security and International Affairs Division, passed away February 19, 1985.

Atlanta

Judith Steadman, a secretary at the Atlanta Regional Office's Huntsville sublocation, passed away on January 17, 1985.

Detroit

Frank G. Farkas, who worked for GAO for 24 years, passed away April 6, 1985.

Kansas City

Ernest Kistler, an evaluator in the Kansas City Regional Office, passed away February 2, 1985.

Professional Activities

Office of the Comptroller General

Comptroller General **Charles A. Bowsher** addressed the following groups:

Wharton School of Business, University of Pennsylvania, Philadelphia, Feb. 4.

Government Financial Officers Association, Washington, Feb. 12.

Texas Society of CPAs/Financial Executives Institute, Houston, Feb. 21.

Southeastern Intergovernmental Audit Forum, Jackson, MS, Mar. 7-8.

National Association of State Comptrollers, Arlington, VA, Mar. 18.

Joint Financial Management Improvement Program's 14th Annual Financial Management Conference, Washington, Mar. 20.

Federal Executive Institute Alumni Association, Washington, Mar. 28.

Accounting and Financial Management Division

Frederick D. Wolf, director, addressed the following groups:

National Conference on Financial Management Systems for Government, sponsored by the Public Management Institute of George Mason University and the U.S. Professional Development Institute, Bethesda, MD, Jan. 9.

A joint meeting of the Western Intergovernmental Audit Forum and the Mountain and Plains Intergovernmental Audit Forum, San Diego, Mar. 1.

Southeastern Intergovernmental Audit Forum, Jackson, MS, Mar. 8.

Association of Government Accountants dinner meeting, Alexandria, VA, Mar. 19.

Joint Financial Management Improvement Program annual conference, Washington, Mar. 20.

Kenneth W. Hunter, senior associate director, addressed the following groups:

Congressional Quarterly, Inc., Washington, Feb. 13.

American Society for Public Administration, 49th national conference, Indianapolis, Mar. 24-26.

John J. Adair, associate director, addressed the following groups:

A joint meeting of the Western and Plains Intergovernmental Audit Forums on GAO's review of the quality of CPA and state and local audits of federal assistance programs, San Diego, Feb. 28.

The Federal Executive Board on fraud prevention efforts by both GAO and the President's Council on Integrity and Efficiency, Los Angeles, Mar. 13.

Mr. Adair also was elected to the Board of Directors, Washington chapter, Institute of Internal Auditors, Mar. 20.

Virginia B. Robinson, associate director:

Moderated a workshop on improving economy and efficiency in financial management at the Joint Financial Management Improvement Program conference, Washington, Mar. 20.

Cochaired a workshop on "The Evolving Role of the General Accounting Office" at the Federal Executive Institute Alumni Association, Arlington, VA, Mar. 28.

John F. Simonette, associate director, participated as a panel member at the Middle Atlantic American Accounting Association conference, George Washington University, Washington, Mar. 15.

Joseph Comtois and **W. A. Broadus**, both group directors, were jointly awarded the Northern Virginia chapter of the Association of Government Accountants' 1985 Achievement-of-the-Year award for their work on the single audit and efforts to aid passage of the Single Audit Act of 1984.

Ernst F. Stockel, group director:

Spoke on "Using Automation in the Audit Process" at the National Conference on Financial Management

Systems for Government, Washington, Jan. 9.

Spoke on "An Auditing Methodology: Control and Risk Evaluation (CARE)" at the American Accounting Association Government and Nonprofit-Sector Seminar on Auditing in Government, Chicago, Mar. 27.

Geoffrey B. Frank, senior accountant, spoke on GAO's review of the implementation of the Federal Managers' Financial Integrity Act before the Beaver Valley chapter of the National Association of Accountants, Beaver Falls, PA, Mar. 21.

Paul S. Benoit, computer specialist, was presented the highest professional designation in the systems field, "Certified Systems Professional," by the Association for Systems Management at the Patuxent chapter's January meeting in College Park, MD.

Office of the General Counsel

Harry R. Van Cleve, general counsel:

Discussed "The GAO View: Role-Actions-Case Commentary" at the Federal Publications, Inc. 1985 CPD conference, Arlington, VA, Jan. 22.

Spoke on "Bid Protests—What Forum To Use," in a panel discussion on "Government Contract Issues of the '80s," before the Dayton chapter of the Federal Bar Association, Dayton, Apr. 10.

Rollee Efros, associate general counsel, spoke on "Fiscal Law" before the Department of Justice Legal Research Institute, San Francisco, Mar. 27.

Seymour Efros, associate general counsel:

Spoke before the Judge Advocate General's 1985 Government Contract Law Symposium on bid protests, Charlottesville, VA, Jan. 8.

Spoke before the George Washington University School of Government and Business Administration on "GAO's Protest Authority and Regulations," Washington, Feb. 4.

Ronald Berger, assistant general counsel, spoke on "Noncompetitive Negotiation, Small Business/Small Purchases, and Bid Protests at GAO Under the Competition in Contracting Act," Arlington, VA, Jan. 28-29.

Raymond J. Wyrsh, senior attorney, gave a presentation on "The Law: How It Affects You, the Auditor," in which he discussed how GAO's Office of the General Counsel works with auditors on compliance audits, at a seminar sponsored by the Institute of Internal Auditors, Washington, Jan. 16.

General Government Division

William J. Anderson, director:

Attended the Program for Senior Managers in Government at Harvard University, Cambridge, MA, July 30-Aug. 17, 1984.

Spoke at the Federal Executive Institute Alumni Seminar on "The Evolving Role of GAO," Arlington, VA, Mar. 28.

Spoke at the Office of Personnel Management (OPM) Executive Seminar Center on "Working Effectively With Oversight Organizations (Learning To Like Your Auditor)," Oak Ridge, TN, Mar. 29.

Roslyn S. Kleeman, associate director:

Participated in an OPM seminar on congressional personnel initiatives, July 20, 1984.

Participated in an OPM productivity seminar, Aug. 30, 1984.

Spoke on auditing executive branch programs before the Women's Executive Leadership Program, Sept. 19, 1984.

Brian L. Usilaner, associate director:

Spoke on "Controlling Operating Costs in the Federal Government" at the National Productivity Conference, New Orleans, Oct. 17, 1984.

Spoke on "Productivity: Are We Worried About the Right Things?" at the International Conference on Public Personnel Administration, Miami Beach, Oct. 24, 1984.

General Services and Controller

Jean Knowles, writer-editor:

Presented a seminar on "Writing for Results" for the North Alabama chapter of the Institute of Internal Auditors, Huntsville, AL, Nov. 5, 1984.

Presented a writing seminar for the Kentucky State Auditors in Frankfort, Jan. 30-31.

Presented a seminar on "Writing Convincing Audit Reports" for the Washington chapter of the Institute of Internal Auditors, Washington, Feb. 20.

Human Resources Division

Richard L. Fogel, director, spoke on evaluating policy outcomes and the management of federal agencies at the Executive Development Seminar, Executive Seminar Center, Kings Point, NY, Feb. 19.

Dave Baine, associate director, discussed GAO's role in enacting legislation requiring sharing federal medical resources, before the Interagency Institute for Federal Health Care Executives, Washington, Feb. 4.

Sigurd Nilsen, labor economist, is the coauthor of "Job Training Partnership Act, CETA, and Rural Communities," published in the October 1984 issue of *Rural Development Perspectives*.

Stuart Fleishman, senior evaluator, conducted taped interviews with NBC News and RKO News on GAO's report, "Improved Efforts Needed To Relieve Medicaid From Paying for Services Covered by Private Insurers," Feb. 12.

Paul Grishkat, senior evaluator, discussed GAO's review of state implementation of the Elementary and Secondary Education Block Grant at the national meeting of Education Block-Grant Coordinators, Washington, Feb. 12.

Kathryn Allen, evaluator, is the author of "Trimming the Fat From Health Expenses," published in the February 25 edition of *County News*, published by the National Association of Counties.

Information Management and Technology Division

John Butcher, senior evaluator, was elected vice-president for membership of the Washington chapter of the National Association of Accountants for 1985-86.

Office of International Audit Organization Liaison

Elaine L. Orr, director, spoke before the U.S. Merit Systems Protection Board on "How To Eliminate Sexist Language From Our Writing," Washington, Mar. 13.

Alberta Tropt, program specialist, convened a panel on "Networks, Job Clubs, Career Expansion: Do They Help?" at the 46th annual conference of the American Society for Public Administration, Indianapolis, Mar. 25.

Donald Drach and **Alberta Tropt**, program specialists, coauthored an article entitled "Federal Program Brings Auditors to the U.S.," published in the *Federal Trainer*, winter 1985 edition.

Joint Financial Management Improvement Program

Doris A. Chew, acting executive director, moderated and spoke at the Federal Executive Board's current management issues seminar, Baltimore, Jan. 29.

National Security and International Affairs Division

Henry Connor, senior associate director, discussed GAO's organization and planning process for defense-related work before the Logistics Management Institute, Feb. 12.

Donald E. Day, senior associate director, spoke on "GAO's Role in the Acquisition Process" at the Defense Systems Management College, Fort Belvoir, VA, Mar. 1.

Harry Finley, associate director, testified on the Peacekeeper (MX) intercontinental ballistic missile system, before the Subcommittee on Defense, Senate Committee on Appropriations. He was accompanied by evaluator **Jim Dinwiddie**, Los Angeles, Mar. 8.

Paul Math, associate director, discussed GAO's work on military acquisition and procurement issues at the Technical Marketing Society of America's Conference on the Fiscal Year 1986 Defense Budget, Mar. 26.

Joan McCabe, associate director, testified on the broadcast policies of Radio Free Europe and Radio Liberty before the Senate Committee on Foreign Relations on March 29. She was accompanied by **John Payne**, NSIAD, and **Michael Welsh**, European Branch.

Allan Mendelowitz, associate director:

Was interviewed on RKO Radio about GAO's report, "The U.S. Footwear Industries' Ability To Meet Military Mobilization Needs" (GAO/NSIAD-85-35), Jan. 3.

Discussed "Controlling Technology Transfer" at the National Security Industrial Association's conference on "National Trade and National Security: Finding the Harmony," Washington, Jan. 17.

Bill Moore, associate director, discussed GAO's defense-related work and participated in a panel discussion with the Army auditor general and the Air Force deputy auditor general, at the Air University's Professional Military Comptroller School, Maxwell Air Force Base, AL, Jan. 18.

Hyman S. Baras, group director, was a panelist at the seminar on defense procurement policy sponsored by the Council on Foreign Relations for a select group of White House officials, government executives, and journalists, Washington, Apr. 11.

Alan Bennett, evaluator, conducted a briefing on U.S. military aid to El Salvador before the Subcommittee on Investigations, House Committee on Armed Services. He was accompanied by **Joan McCabe** and **Stew Tomlinson**, NSIAD; and **Jennifer Thomas**, WRO, Mar. 21.

Chris Bonham and **Bill Meredith**, evaluators, discussed GAO's reviews of Navy programs at the Navy's Career Development Center, Bolling AFB, Mar. 22.

Eve Burton, evaluator, discussed "Leadership Training: Barriers and Opportunities for Khmer and Vietnamese Women in Southeast Training" as part of a panel discussion on "Refugee

Women in Third World Countries," sponsored by the Refugee Policy Group, Washington, Jan. 18.

Julia Denman, evaluator:

Spoke on "A GAO Perspective of Life Cycle Management," at the Management of Acquisition Logistics Seminar at the Defense Systems Management College, Dec. 13.

Discussed "Logistics Perspectives for the Acquisition and Support of Military Weapons Systems," at the American Defense Preparedness Association's Integrated Logistics Support Symposium, Fort Worth, TX, Nov. 28, 1984.

Jess Ford, evaluator, discussed GAO's role in evaluating international organizations before the Foreign Service Institute's course on multilateral diplomacy and international organizations, Washington, Jan. 24.

Jim Forsberg, evaluator, was interviewed by ABC News on GAO's reviews of the Army's High Mobility Multipurpose Wheeled Vehicle, which is designed to replace the jeep. The segment was broadcast nationally on ABC *World News Tonight*, Mar. 5.

Bill McNaught, evaluator, participated in a panel discussion on "Military Economics," before the Industrial Relations Research Association, Dallas, Dec. 29, 1984.

Austin E. Miller, evaluator, gave a speech on "Full-Time Manning in Army Reserve Components" at the National Guard Technical Personnel Conference, Little Rock, AR, Feb. 12.

Lynn Moore, evaluator:

Discussed GAO's November 1984 report, "Financial Management Problems in Developing Countries Reduce the Impact of Assistance," in a roundtable discussion sponsored by the International Consortium on Governmental Financial Management, Washington, Feb. 6.

Discussed the same report in a panel discussion sponsored by the American Consortium for International Public Administration, the National Academy of Public Administration, Washington, Feb. 21.

Jim Morris, evaluator, discussed GAO's new concepts in strategic planning and job execution before the Navy Auditor General's assistant directors'

conference, Washington, Feb. 12.

Bill Newman, evaluator, participated in a panel discussion on technology transfer at a workshop sponsored by the Computer and Business Equipment Manufacturers Association, Annapolis, MD, Mar. 5.

Office of Organization and Human Development

Lynn C. Ernst, instructional systems specialist, and **Barry T. Gruenberg** and **Robert D. Minnick**, training evaluation specialists, spoke on "Transition Management" before the Potomac chapter of the National Society for Performance and Instruction, Washington, Mar. 13.

Frank T. Davis, outplacement specialist, conducted outplacement workshops at the American Society for Public Administration national conference, Indianapolis, Mar. 24-27.

Paul Lazar, instructional systems specialist, spoke on computer-based training before the Office of Personnel Management's Government Training Network, Norfolk, Mar. 21.

Aaron Rorstrom, training evaluation specialist, conducted several workshops at the Federal Office Systems Exposition, Washington, Mar. 4-7.

Gene Bretton, personnel psychologist, initiated and cosponsored the first joint meeting of the metro area's Personnel Testing Council Research Committee and the D.C. chapter of the American Statistical Society to address "Psychometrics and Personnel Selection," especially in the context of Equal Employment Opportunity/Affirmative Action, Washington, Jan. 15.

Personnel

Stephen J. Kenealy, national recruitment program manager:

Was appointed to the City of Alexandria Commission on Employment.

Was appointed to the editorial board of the Cooperative Education Association, Inc.

Was appointed to the program planning committee of the Mid-Atlantic Placement Association.

Program Evaluation and Methodology Division

Eleanor Chelimsky, director:

Lectured in French on program evaluation in the United States (its origins, development, and current uses) before an audience of French academicians and government officials, Paris, Sept. 1984.

Gave a seminar in French in Poitiers, France on the subject of block grants and administrative decentralization before an audience of regional officials at their annual national meeting, Sept. 1984.

Gave a seminar on GAO's program evaluation responsibilities as laid out in Title VII of the Congressional Budget and Impoundment Act of 1974 and on how GAO is fulfilling the requirements of the act, Kings Point, NY, Jan. 18.

Gave a seminar to faculty and students of Peabody College at Vanderbilt University on legislative bodies and program evaluation, Nashville, Jan. 24.

Authored an article, "Budget Cuts, Data, and Evaluation," in the March/April 1985 issue of *Society*.

Resources, Community, and Economic Development Division

John Luke, associate director, participated in a roundtable discussion on "Community Development and Business Assistance Programs," sponsored by the American Enterprise Institute, Washington, Mar. 21.

Mehrzad Nadji, economist, coauthored an article, "Derivation of Regional Prices," published in the *Journal of Regional Science and Urban Economics*, 14 (1984).

Osmund Fundingsland, chief science advisor, presented a seminar on GAO's science and technology work to students and faculty of Carnegie-Mellon University's Department of Engineering and Public Policy, Feb. 28.

Vic Rezendes, group director, participated in a panel discussion on "Superfund: How Big Is the Problem?" sponsored by the Congressional Environmental and Energy Study Conference, Washington, Mar. 25.

Regional Offices

Atlanta

Patricia O'Berry, evaluator, discussed the multivariate regression analysis used during a review of productivity in the Social Security Administration with a graduate-level quantitative analysis class at the University of Tennessee, Knoxville, Feb. 26.

Charles Taylor, evaluator, participated in a panel discussion on "Medicare and the Supplemental Insurance Options" at a conference sponsored by the Health Council of South Florida, the Broward Regional Health Planning Council, and the Southeast Florida Center on Aging, Florida International University, Miami, Feb. 22.

Chicago

John Rose, evaluator, served as a panelist and discussed GAO operations and job opportunities at Northern Illinois University, DeKalb, Mar. 21.

Fred Wiener, evaluator, participated in a panel discussion on "GAO Audits and Reviews" at the 1985 Annual Default Conference sponsored by the National Council of Higher Education Loan Programs, Inc., Atlanta, Apr. 4.

Dallas

Kenneth Pritchett, assistant regional manager for operations, was selected to serve on the North Texas State University Accounting Faculty Advisory Committee.

Detroit

Patrick Iler, evaluator, was elected president of the Cleveland chapter of the Association of Government Accountants for fiscal year 1985-86.

William Laurie, evaluator:

Spoke before the Association of Government Accountants on the subject of "Eligibility Verification of Federal Programs: A Computer Application" in Columbus, OH, Apr. 8.

Served as chairperson of the National Council on Aging symposium addressing "National Issues on Aging: The 1980's and the Year 2020," San Francisco, Apr. 22.

Louise Roy, evaluator, presented a paper entitled "Federal Benefits Pro-

gram: 50 percent of the National Budget" to the Ohio Academy of Science, at the University of Cincinnati, Apr. 20.

Kansas City

David A. Hanna, regional manager:

Addressed the annual joint meeting of the Association of Government Accountants, the American Society of Women Accountants, and the National Association of Accountants on the work of GAO and the role and functions of the Mid-America Intergovernmental Audit Forum, for which Mr. Hanna serves as chairperson, Topeka, Feb. 21.

Gave a briefing at a Greater Kansas City Federal Executive Board meeting sponsored by the Management Effectiveness Committee's Economy and Management Improvement Subcommittee on "The Federal Integrity Act of 1982," Kansas City, Mar. 1.

Addressed the Alpha Pi chapter of the University of Iowa at a spring initiation banquet sponsored by Beta Alpha Psi, the national accounting fraternity, on "Current Events and Operational Auditing at GAO," Iowa City, Mar. 9.

Margarita A. Vallazza, writer-editor, was appointed to the Board of Directors of El Centro, Inc., a nonprofit agency serving the Spanish-speaking population of the Greater Kansas City metropolitan area, Kansas City, Feb. 12.

Larry Van Sickle, evaluator, spoke on "The Financial Integrity Act—An Explanation of the Act and the Status of GAO's Review Efforts on It" before the Beta Alpha Psi accounting group at the University of Iowa, Iowa City, Mar. 5.

At the seminar on Auditing in Government sponsored by the Midwest Region of American Accounting Association, in Chicago, Mar. 27:

David A. Hanna, regional manager, chaired a panel on "Expanded Scope Auditing: Overview and Historical Perspective." Tom Wolters, evaluator, was a panel member. Susanne Valdez, evaluator, cochaired the seminar.

Los Angeles

Vic Ell, assistant regional manager, spoke before the Western Intergovernmental Audit Forum, San Diego, on "Operating Economy and Efficiency at

the Local Level of Government: A Case Study—City of Pasadena.”

Fred Gallegos, manager, management science group:

Spoke before the California Polytechnic Society of Accountants on “The Future of EDP Auditing” at California State Polytechnic University, Pomona, Jan. 17.

Spoke before a joint meeting of the Institute of Internal Auditors and the EDP Auditors Association, Sacramento chapters, on “Microcomputers in Auditing,” Sacramento, Jan. 22.

Received notification from Auerbach Publishers that his article on “Microcomputers in Auditing: An Overview” had been published for their *EDP Audit Publication Series*.

Taught an EDP audit and controls course for the Computer Information Systems Department at California State Polytechnic University, Pomona, winter quarter.

Participated in a workshop sponsored by the President's Council on Integrity and Efficiency and the National Bureau of Standards on “EDP Audit Work Priorization,” Orlando, FL, Mar. 13-15.

Participated in teaching a session for the Certified Information Systems Auditor Review Course for the EDP Auditors Association, Los Angeles chapter, Mar. 23.

Philadelphia

Fred D. Layton, regional manager, discussed GAO's work with the Philadelphia chapter of the Association of Government Accountants, Jan. 9.

San Francisco

Jim Mansheim, assistant regional manager, gave a presentation on “An Approach to Quality Assessment Reviews of Audit Organizations” to the San Francisco chapter of the Association of Government Accountants, Apr. 16.

Jack Birkholz, senior evaluator:

Gave a talk on “Current Trends in Government Auditing” at the 75th annual convention of the California State Association of County Auditors in Anaheim, Feb. 12. In recognition of his service as executive director of the Western in-

tergovernmental Audit Forum, he was named an honorary life member of the association.

Spoke on “The Single Audit: Its Nature and Purpose” at a seminar on the Single Audit Act of 1984 and related issues sponsored by the Government Finance Officers Association in Millbrae, CA, Feb. 21.

Served on a panel discussing audit resolution at the Job Training Partnership Act Auditors' Seminar in New Orleans, Mar. 5.

Served as an instructor on audit evidence, report point development, and internal controls at an operational auditing seminar sponsored by the Southeastern Intergovernmental Audit Forum, Jackson, MS, Mar. 6-8.

Presented a seminar on audit report point development that was sponsored by the Association of Government Accountants, Peninsula/Palo Alto chapter, and the Western Intergovernmental Audit Forum, Santa Clara, CA, Mar. 21.

Presented a seminar on generally accepted government audit standards that was cosponsored by the Association of Government Accountants, San Francisco chapter and the Western Intergovernmental Audit Forum, San Francisco, Mar. 25.

Discussed audit report point development and documentation at seminars sponsored by the California Association of Auditors for Management in Sacramento, and Apr. 19, in San Francisco, May 3.

Seattle

Hugo W. Wolter, Jr., evaluator, spoke on “What GAO Is, What It Has Done, and What Its Actions and Plans Are in Alaska” before the International Air Crossroads Lions Club, Anchorage, Feb. 4.

Stephen J. Jue, technical assistance group manager, taught a three-session seminar at the EDP Auditors Association's Certified Information-System Auditors review course, Seattle, Feb. 19, 25, and Mar. 4. The subjects included audit control during a system's development life cycle, applications controls, and the EDP audit process.

Briefcase, Cont'd from pg. 2

ministering federal programs; and improving productivity, financial management, federal information technology, and program delivery.

"Management of the U.S. Government" devotes one section to GAO's commitment to improved financial management in the federal government and should, therefore, especially interest GAO staff. Like GAO's two-volume report, "Managing the Cost of Government" (GAO/AFMD-85-35/35a, Feb. 1985), OMB's report recognizes the need for strong financial controls and identifies some serious system deficiencies. However, it takes a much narrower view of the solutions to these deficiencies. GAO's report, for example, looks at a total cycle that includes planning/programming, budgeting, budget execution/accounting, and audit/evaluation. OMB's report, on the other hand, focuses on the budget-execution system as "the principal method of maintaining financial control."

A short section on the congressional role in management improvement acknowledges the need for a cooperative executive/legislative effort to address management issues in a balanced way. "The process of modernizing the federal organization is neither easy nor quick," the report states, "and cannot be accomplished by the executive branch on its own." This section also includes brief descriptions of related legislation, such as the Paperwork Reduction Act, the Federal Managers' Financial Integrity Act, and the Single Audit Act.

"Management of the U.S. Government" includes appendices that cite the dollar savings associated with management improvement and report on the status of the Grace Commission recommendations.

'Management Contents'

If you've ever felt overwhelmed by the large volume of journals, magazines, and other professional literature that you really should keep up with, perhaps "Management Contents" can help. This biweekly compiles tables of contents from 375 of the latest business and management periodicals. Published 26 times a year, "Management Contents" provides an economical and efficient approach to finding the most current information on a wide variety of business- and management-related issues. Account-

ing, decision science, finance, industrial relations, marketing, operations research, and public administration are some of the subjects covered. By simply scanning the approximately 40 pages of tables of contents or the subject index at the back of each issue, busy readers can more efficiently review articles in their own fields as well as in related areas.

"Management Contents" is available in the GAO Technical Library, room 6536. It can be obtained by writing to "Management Contents," 2265 Carson Drive, Northbrook, Ill. 69962.

Ed. Note: If you would like to complete your collection of back issues of *The GAO Review* or the *GAO Annual Report*, please contact the *Review's* editorial staff. We are streamlining our files and offering readers the opportunity to obtain back issues of these publications before they are purged. Please call (202) 275-4707 or write the Assistant Editor, *The GAO Review*, U.S. General Accounting Office, 441 G Street NW, room 7131, Washington, D.C. 20548.

Location, Cont'd from pg. 5

have taught seminars for the organization.

Bill Broadus and Joe Comtois, of the Accounting and Financial Management Division (AFMD), have written for IIA-related publications, and David Littleton, of the National Security and International Affairs Division (NSIAD), has been a featured speaker. In addition, several GAO staff who had been active in IIA found private-sector internal auditing posts—through their IIA networking—after leaving or retiring from GAO.

Membership

Some people have had the mistaken impression that IIA membership requires one to sit for the certified internal auditor (CIA) examination. While many IIA members are CIAs, most are not. In fact, more IIA members are certified public accountants (CPAs) than are CIAs. The only requirement for joining IIA is an interest in professional auditing. Many IIA members come from CPA firms and view GAO colleagues as external auditors, but both groups find a common ground as professionals who share common interests and goals. As further evidence of the tie with external audit offices, the new president of IIA, G. Peter Wilson, is immediate Past Deputy Auditor General of Canada. As the

Canadian Office of the Auditor General staff member who oversaw all international programs, Mr. Wilson had visited GAO and met with many of its staff. He hopes to continue doing so as IIA's chief executive officer.

For more information on the Washington, D.C., chapter of IIA, call Mort Dittenhofer at (301) 840-1167.

Railroad Accounting Principles Board Members Named

In December 1984, Comptroller General Bowsher announced the appointment of six members of the Railroad Accounting Principles Board (RAPB), which he chairs. Members of the Board, who will establish cost accounting principles for use by rail carriers regulated by the Interstate Commerce Commission (ICC), are

- Charles W. Bath, vice-president, traffic, Farmland Industries, Inc., Kansas City, Mo.;
- Richard E. Briggs, executive vice-president, Association of American Railroads, Washington, D.C.;
- J.L. (Jack) Mahaffey, president, Shell Mining Co., Houston;
- Merton J. (Joe) Peck, professor of economics, Yale University, New Haven;
- Gordon Shillinglaw, professor of accounting, Graduate School of Business, Columbia University, New York; and
- Ronald S. Young, director, Bureau of Accounts, Interstate Commerce Commission, Washington, D.C.

The members represent the railroad and shipping industries, the accounting and economics professions, and the ICC. Charles R. Yager, former senior manager in national transportation practice with Peat, Marwick, Mitchell & Co., Washington, D.C., is the executive director. Kurt Feaster and John McQuaid are deputy directors. Jeffrey A. Jacobson, former senior attorney in GAO's Office of the General Counsel, is the chief counsel. RAPB's offices are located at GAO, 441 G Street NW, room 4047, Washington, D.C., (202) 275-1633.

Manager's, Cont'd from pg.6

most impact on the level of effectiveness in each key area?)

By revealing individual managers' implicit theories of organizational effectiveness (Tichy and Hornstein, 1980), it is possible to get a sense of how the organization actually works

and to uncover legitimate value differences. This information can be used for building teams, communicating organizational values, and developing a measurement system for tracking OE.

To productively use the expanding OE literature, managers should keep several points in mind. They should moderate their expectations, recognizing that their interests may be different from those of researchers and theorists. Managers should, however, pursue their interests and look for those studies and discussions of specific effectiveness criteria related to those interests. It would be useful for managers to think about their personal theory of OE—the criteria that define success in their context—and the antecedent conditions or factors necessary to success. By looking at the implications of their theory in the context of managing the success of the whole organization, managers will quickly develop an appreciation for the complexity of OE literature. Since such study helps design effectiveness research, it brings the manager/user and the researcher closer together. That movement toward closer collaboration, by itself, may produce a more accessible and useful body of OE literature in the future.

Bibliography

OE literature consists of conceptual books and articles aimed at theory-building, research that uses organizational criteria for evaluating effectiveness or for testing theoretical hypotheses, and methods managers can use to assess organizations (using the results to foster organizational change). For newcomers venturing into the area, bibliographic references with an asterisk (*) provide a good entry into the subject matter.

- Argyris, C. "Is Capitalism the Culprit?" *Organizational Dynamics* (spring 1978,) pp. 20-37.
- *Cameron, K.S. and Whetton, D.A. (eds.) *Organizational Effectiveness: A Comparison of Multiple Models*. New York: Academic Press, 1983.
- Cameron, K.S. "Organizational Effectiveness: A Comprehensive Bibliography." National Institute for Education, 1982.
- Campbell, J.P. "On the Nature of Organizational Effectiveness." In P.S. Goodman and J.M. Pennings (eds.), *New Perspectives on Organizational Effectiveness*. San Francisco: Jossey-Bass, 1977.
- Campbell, J.P., Bownas, E.A., Peter-

son, N.G., and Dunnette, M.D. "The Measurement of Organizational Effectiveness: A Review of Relevant Research and Opinion." San Diego: NPRDC, 1974.

- *Goodman, P.S. and Pennings, J.M. (eds.) *New Perspectives on Organizational Effectiveness*. San Francisco: Jossey-Bass, 1977.
- *Lawler, E.E., Nadler, D.A., Cammann, C. (eds.) *Organizational Effectiveness: Perspectives on the Measurement of Organizational Behavior and the Quality of Worklife*. New York: John Wiley and Sons, 1980.
- Mohr, L.B. "The Implications of Effectiveness Theory for Managerial Practice in the Public Sector." In K.S. Cameron and D.A. Whetton (eds.), *Organizational Effectiveness: A Comparison of Multiple Models*. New York: Academic Press, 1983.
- Quinn, R.E. and Rohrbaugh, J. "A Spatial Model of Effectiveness Criteria: Towards a Competing Values Approach to Organizational Analysis." *Management Sciences*, Vol. 29 (3), pp. 363-377.
- Schneider, B. "Organizational Behavior," *Annual Review of Psychology*, Vol. 36, 1985, pp. 573-612.
- Starbuck, W.H. and Nystrom, P.C. "Pursuing Organizational Effectiveness That Is Ambiguously Specified." In K.S. Cameron and D.A. Whetton (eds.), *Organizational Effectiveness: A Comparison of Multiple Models*. New York: Academic Press, 1983.
- Tichy, N.M., and Hornstein, H.A. "Collaborative Organizational Model Building." In E.E. Lawler, D.A. Nadler, C. Cammann (eds.), *Organizational Effectiveness: Perspectives on the Measurement of Organizational Behavior and the Quality of Worklife*. New York: John Wiley and Sons, 1980.

Vaill, P. "Futuristic Management." An address delivered to GAO Management Speakers Series. GAO: OOHV videotape, 1984.

- *Van de Ven, A.H. and Ferry, D.L. "Measuring and Assessing Organizations." New York: John Wiley and Sons, 1980.

Topics, Cont'd from pg. 9

- Kenny, D.A. *Correlation and Causality*. Wiley-Intersciences, 1979.
- Program Evaluation and Methodology Division. *Causal Analysis*. GAO, 1982.

Experimental and Quasi-Experimental Methods

- Anderson, S. et al. *Statistical Methods for Comparative Studies*. Wiley, 1980.
- Cook, T.D. and D.T. Campbell. *Quasi-Experimentation*. Rand-McNally, 1979.
- Kirk, R.E. *Experimental Design: Procedures for the Behavioral Sciences*. Brooks/Cole, 1968.
- Langbein, L.I. *Discovering Whether Programs Work*. Scott Foresman, 1980.
- Susser, M. *Causal Thinking in the Health Sciences*. Oxford, 1973.

Judgment Methods

- Axelrod, R., ed. *Structure of Decision*. Princeton, 1976 (cognitive maps).
- Bougon, M., Weick, K. and D. Binkhorst. "Cognition in Organizations: An Analysis of the Utrecht Jazz Orchestra." *Administrative Science Quarterly*. (December 1977), pp. 606-39 (cause maps).
- Calder, B.J. "Focus Groups and the Nature of Qualitative Marketing Research." *Journal of Marketing Research*, Vol. XIV (August 1977), pp. 353-64.
- Delbecq, A. et al. *Group Techniques for Program Planning*. Scott Foresman, 1975 (nominal group technique).
- Perry, S. and J.T. Kalberer, Jr. "The NIH Consensus-Development Program and the Assessment of Health Technologies: The First Two Years." *New England Journal of Medicine*, Vol. 303 (1980), p. 169.

Block Grants, Cont'd from pg. 11

ing and auditing processes; (3) research alternative national funding formulas; (4) explore options for obtaining consistent national information; and (5) track state funding in block-grant program areas.

* * * * *

The large scope, unique goals, and compressed time frame of the block-grant project necessitated the creation of a complex organizational arrangement. However, bringing such a structure to life hinged upon many other often intangible factors. Effective communication and working relationships, as well as adaptability and compromise, were hallmarks of the project, and its successful completion is due to the dedication and sustained hard

work of the many people involved in GAO. While the block-grant project will be remembered for its coverage of many major issues in 13 states across the nation, it should also be remembered as a project in which GAO effectively marshalled interdisciplinary teams and a vast regional structure to undertake the evaluation of a major national policy initiative.

Bibliography

Details and results of GAO's work can be found in the reports listed in this bibliography. The "capping" report, entitled "Block Grants: Overview of Experiences to Date and Emergency Issues" (GAO/HRD-85-46), summarizes our overall findings.

Series of GAO Reports on the Implementation of Block Grants Created by the Omnibus Budget Reconciliation Act of 1981

- "States Are Making Good Progress in Implementing the Small Cities Community Development Block Grant Program" (GAO/RCED-83-186, Sept. 8, 1983).
- "Maternal and Child Health Block Grant: Program Changes Emerging Under State Administration" (GAO/HRD-84-35, May 7, 1984).
- "States Use Added Flexibility Offered by the Preventive Health and Health Services Block Grant" (GAO/HRD-84-41, May 8, 1984).
- "States Have Made Few Changes in Implementing the Alcohol, Drug Abuse, and Mental Health Services Block Grant" (GAO/HRD-84-52, June 6, 1984).
- "States Fund an Expanded Range of Activities Under Low-Income Home Energy Assistance Block Grant" (GAO/HRD-84-64, June 27, 1984).
- "States Use Several Strategies To Cope With Funding Reductions Under Social Services Block Grant" (GAO/HRD-84-68, Aug. 9, 1984).
- "Community Services Block Grant: New State Role Brings Program and Administrative Changes" (GAO/HRD-84-76, Sept. 28, 1984).
- "Federal Agencies' Block Grant Civil Rights Enforcement Efforts: A Status Report" (GAO/HRD-84-82, Sept. 28, 1984).
- "Education Block Grant Alters State Role and Provides Greater Local Discretion" (GAO/HRD-85-18, Nov. 19, 1984).
- "Public Involvement in Block Grant Decisions: Multiple Opportunities

- Provided but Interest Groups Have Mixed Reactions to States' Efforts" (GAO/HRD-85-20, Dec. 28, 1984).
- "Block Grants Brought Funding Changes and Adjustments to Program Priorities" (GAO/HRD-85-36, Mar. 15, 1985).

Coal Leasing, Cont'd from pg. 13

as the one evaluating the emergency federal coal-leasing process, will aid the committees as they focus on the issues and alternative legislative proposals for improving the management of federal coal lands.

GAO Reports Related to Federal Coal Leasing

- "Role of Federal Resources in Meeting National Energy Goals Needs To Be Determined and the Leasing Process Improved" (GAO/RED-76-79, Apr. 1, 1976).
- "Department of the Interior's Approval Process for Coal Mining Plans" (GAO/EMD-76-6, July 20, 1976).
- "National Energy Policy: An Agenda for Analysis" (GAO/EMD-77-16, Jan. 12, 1977).
- "Energy Policy Decisionmaking, Organization, and National Energy Goals" (GAO/EMD-77-31, Mar. 24, 1977).
- "Rocky Mountain Energy Resource Development: Status, Potential, and Socioeconomic Issues" (GAO/EMD-77-23, July 13, 1977).
- "U.S. Coal Development—Promises, Uncertainties" (GAO/EMD-77-43, Sept. 22, 1977).
- "The State of Competition in the Coal Industry" (GAO/EMD-78-22, Dec. 30, 1977).
- "Problems Associated With Coal Reserve Estimates" (GAO/EMD-78-23, Jan. 11, 1978).
- "Inaccurate Estimates of Western Coal Reserves Should Be Corrected" (GAO/EMD-78-32, July 11, 1978).
- "Federal Leasing Policy—Is the Split Responsibility Working?" (GAO/EMD-79-60, June 4, 1979).

"A Shortfall in Leasing Coal From Federal Lands: What Effect on National Energy Goals?" (GAO/EMD-80-87, Dec. 22, 1980).

"Mapping Problems May Undermine Plans for New Federal Coal Leasing" (GAO/EMD-81-30, Dec. 12, 1980).

"Improvements Needed in Managing Federal Coal Mapping Contracts" (GAO/EMD-81-38, May 7, 1981).

"Simplifying the Federal Coal Management Program" (GAO/EMD-81-109, Aug. 20, 1981).

"How Interior Should Handle Congressionally Authorized Coal Lease Exchanges" (GAO/EMD-81-87, Aug. 6, 1981).

"Cooperative Leasing Offers Increased Competition, Revenues, and Production From Federal Coal Leases in Western Checkerboard Lands" (GAO/EMD-82-72, Apr. 28, 1982).

"Need for Guidance and Controls on Royalty Rate Reduction for Federal Coal Leases" (GAO/EMD-82-86, Aug. 10, 1982).

"Coal Exchange Management Continues To Need Attention" (GAO/EMD-83-58, Mar. 7, 1983).

"Analysis of the Powder River Basin Federal Coal Lease Sale: Economic Valuation Improvements and Legislative Changes Needed" (GAO/RCED-83-119, May 11, 1983).

Letter to Chairman, Commission on Fair Market Value Policy for Federal Coal Leasing, Concerning GAO Comments on Commission's Proposed Recommendations, Dec. 16, 1983.

"Legislative Changes Are Needed To Authorize Emergency Federal Coal Leasing" (GAO/RCED-84-17, Aug. 2, 1984).

"Adequacy of Geologic Data for Proposed Coal Lease Tracts in Central Utah and Western Colorado" (GAO/RCED-85-35, Nov. 5, 1984).

Survey, Cont'd from pg. 29

error rates (where "5" is "very often" and "1" is "seldom;" put a "0" if the method is not used at all):

- a. statistical sampling is not used (place an "x") _____
 - b. simple attribute sampling? _____
 - c. discovery sampling? _____
 - d. stop-or-go sampling? _____
 - e. probability proportional to size (PPS)? _____
 - f. dollar-unit sampling (DUS)? _____
 - g. other (specify— _____)? _____
2. For the following judgments required in applying statistical sampling to compliance testing, indicate what level (or range) is typically used by your auditors:
- Level (or range)
- a. confidence level? _____%
 - b. expected error rate? _____%
 - c. precision (one-sided)? _____%
 - d. other (specify— _____)? _____%
3. When judgment (as opposed to statistical) sampling is used by your auditors when testing internal controls for compliance, to what extent is each of the following sampling methods used (where "5" is "very often" and "1" is "seldom;" put a "0" if the method is not used at all):
- a. haphazard? _____%
 - b. block? _____%
 - c. stratified? _____%
 - d. systematic? _____%
 - e. a combination of the above (specify— _____)? _____%
4. Do you use an EDP statistical sampling software package?

If yes, which one(s) do you use?

III. EDP Controls

1. What percentage of your state's agencies use the following types of EDP systems (total need not equal 100%):
 - a. mainframe computer (e.g., greater than \$50,000 cost)? _____%
 - b. micro- or mini-computer (e.g., less than \$50,000 cost)? _____%
2. What percentage of your audits of state agencies having the following types of systems include:
 - a. a review of the EDP system's controls:
 - (1) mainframe computer? _____%
 - (2) micro- or mini-computer? _____%
 - b. tests of how well EDP controls are working:
 - (1) mainframe computer? _____%
 - (2) micro- or mini-computer? _____%
3. Does your audit agency have one or more auditors trained in EDP auditing? (yes or no) _____
If yes, how many? _____
4. Do you use a generalized audit software package? _____
If yes, which one(s) do you use? _____
5. What EDP equipment (hardware, *not* including peripheral devices such as monitors and printers) does your agency have available for use in auditing state agencies? _____
6. Which of the following EDP testing techniques is used by your agency (indicate with an "x")?
 - a. test deck? _____%
 - b. parallel simulation? _____%
 - c. SCARF (systems control audit review file)? _____%
 - d. SNAPSHOT? _____%
 - e. ITF (integrated test facility)? _____%
 - f. PTF (parallel test facility)? _____%

7. Would you like a copy of the results of this study sent to you? (yes or no)

Week's Worth, Cont'd from pg. 35

services for employees, such as business-card printing, discount shopping, locker rentals, group tour rates, video-to-go movie rentals, and family outings. It's a nice change of pace to work at the store (on the third floor of the GAO building). I get to practice my sales skills and apply some of my business experience in an informal setting.

The meeting moves quickly, and I am back at the audit site by noon. I have an afternoon interview with an assistant IG on a controversial audit report, and I almost finish the write-up by the time the car pool is ready to leave. Only one activity tonight: a leisurely evening at home with my family and mother-in-law who's visiting from Green Bay.

Friday

Fridays are always the busiest and most enjoyable day of the week for me. After I finish the write-up from yesterday's interview, the evaluator-in-charge from our permanent audit staff comes by to brief me. His staff covered the appropriation hearings and a second oversight hearing on the agency that I'm studying. I was especially interested in the funding requests and management's evaluation of the resources allocation for the IG shop.

After writing the record of the briefing, I head for work in the Employee Association Store. The store is open daily from 11:30 to 1 p.m. and is managed and staffed entirely by volunteers. Once a week, staff donate a lunch hour and their offices permit them an extra hour off. Sometimes it's difficult to remain familiar with incoming stock while remembering details of added membership benefits and other association developments. But volunteering is a good opportunity to meet new people and "network" at GAO.

After I balance the books, it's back to our L'Enfant Plaza site via Metro. The afternoon is consumed with preparing workpapers, scheduling meetings, and planning interviews for next week. At day's end, I drive the boys to the cub scout meeting and wonder where the time went!

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