

The

GAO



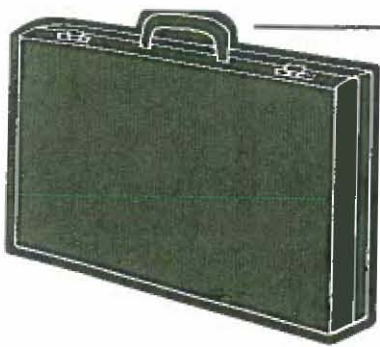
Summer 1984

REVIEW

- 1 From Our Briefcase**
Parallel Themes—An Editor's Note
ADP: An Important Element in GAO's Future
Management Trends and Technology
Annual Report of the Auditor General of Canada, 1983
Eliminating Sexist Language
Career Guides: Not for Women Only
Salary Surveys—Results for Accountants
GAO Fraud Hotline and Related Resources
Accounting Update
 State and Local Governments Get New
 Standard-Setting Body
 Financial Reporting Pyramid in the Federal Government
- 5 On Location**
Accounting and Financial Management Division Restructured
United States-France Decentralization Colloquium
OOHD Instructors Recognized
1983 **Annual Report** Released
Recruiting Status
Personnel Appeals Board Stresses Its Independence
- 7 Manager's Corner**
Effective Meetings
- 9 Topics in Evaluation**
Evaluation Questions
 Carl E. Wisler
- 11 Automatic Data Processing: A Career Challenge**
Sanford F. Reigle
- 13 Integration of New Technology into Regional Office Operations**
Fred Gallegos

Contents

- 16** **Crime, Abuse, and the Computer: The Problem and the Federal Experience**
 James R. Galloway
- 18** **Career Management for Managers**
- 22** **Caution: Prescription and Patent Drugs Can Harm Your Health**
 Carl Fenstermaker
- 24** **The Saigon Office: Closed, But Not Forgotten**
 Ronald L. King
- 27** **A Review Article Profile: Rocky Mountain High**
- 28** **A Week's Worth**
 Margarita A. Vallazza
- 30** **Legislative Developments**
 Judith Hatter
- 31** **Reflections**
 Diane E. Grant
- 39** **GAO Staff Changes**
 Senior Staff Changes
 SES Reassignments
 Additional Staff Changes
 New Staff Members
 Retirements
 Deceased
 Attritions
- 45** **Professional Activities**



From Our Briefcase

Parallel Themes—An Editor's Note

This issue's cover reflects a trend we have noticed in recent months. *Review* authors increasingly are submitting articles about computer technology and its applications to audit work. Their interest parallels GAO's own move to enhancing staff capabilities in automated data processing (ADP) in coming years.

The editorial staff decided, therefore, to develop a technology "theme" issue and has grouped three related articles for your review. Sandy Reigle begins by discussing the evolution of ADP in an audit environment and the career challenges it offers at GAO. Fred Gallegos describes aspects of new technology and provides a model for its application to regional office operations. Jim Galloway completes the trio with an overview of computer crime and the federal agencies' response. Since a theme-oriented issue is something new for the *Review*, we welcome reader responses.

ADP: An Important Element in GAO's Future

ADP was also a consistent theme in Comptroller General Bowsher's February testimony to the House Appropriations Legislative Subcommittee. In support of GAO's fiscal year 1985 budget and a request for expanded staff resources, Mr. Bowsher gave the following overview of ADP growth in the federal government.

"The growth of ADP and its application by the federal work force has been dramatic. In fiscal year 1981, the federal government spent more than \$17 billion on ADP systems, related software, and telecommunications. Since then, annual expenditures have grown at least 30 percent. The trend toward the increased use of these systems by federal agencies continues. We have identified over 100 major ADP systems in various federal agencies that have received little or no review to date.

These systems support such vital functions as national security, safe air travel, and the control of billions of dollars in funds transfers for our social and economic programs."

Mr. Bowsher also commented that additional staff will permit the Information Management and Technology Division "to deal more effectively and comprehensively with computer technology used by the government in its major financial, logistics, communications, statistical, research and development, income security, tax, and other systems." Increased staff will "provide the capability to train other GAO auditors. This training is critical because it is virtually impossible to conduct major program audits without involving computer-related data."

The full text of Mr. Bowsher's testimony is available from GAO's Document Distribution Office, room 1518, (202) 275-6241.

Management Trends and Technology

"Hope for the future and an engaged, disciplined search for improved federal management." This is how Chester A. Newland, professor of government and politics at George Mason University, near Washington, D.C., described the main thrust of a recent "forum" on public management trends published in the winter 1983-84 issue of *The Bureaucrat*. The forum consists of four articles as well as Newland's introductory and concluding pieces. As forum editor, he assesses management developments in terms of possible trends: (1) policy management and implementation, (2) finance and budget, (3) procurement and property, (4) information and communication, (5) personnel, and (6) evaluation and audits. The articles address the congressional budget process, managerial accountability and responsibility, changes in public organization, and technology and government management. Newland concludes that, in spite of declines in central management effectiveness in the last 10 years, the values of public service and civic duty "are very much alive with the federal government service."

Authors' Views

The forum authors, all experienced practitioners of federal program man-

agement, expand on Newland's themes. They provide historical, current, and future perspectives and examples from their own management work. Together, the articles put into context recent federal government management programs and approaches. A sampling of ideas from the first three authors follows. The fourth author's topic, which relates to this *Review*'s theme, is described in more detail.

James L. Blum, assistant director for budget analysis in the Congressional Budget Office predicts that the fiscal year 1986 budget appears to have the best chance of making a significant change in projected deficit levels. Charles L. Dempsey, inspector general at the U.S. Department of Housing and Urban Development, attests that the climate is right to apply teamwork, responsibility, and accountability to improve government efficiency. Charles F. Bingman, practitioner-in-residence at the National Academy of Public Administration, on assignment from the Office of the Secretary, Department of Transportation, warns that the existing civil service work force risks serious damage as more public functions are handled by private-sector contractors. In spite of their differing themes, all three managers have surely applied technology in its broadest sense to getting their work done. It is this application that the fourth author describes.

Technology Applied

Ralph C. Bledsoe, Special Assistant to the President for policy development and executive secretary to the Cabinet Council on Management and Administration, combines concepts from the "hard" (electronic) and "soft" (social) sciences to show how technology is improving government management. He notes that three groups of fundamental competencies are now required of public managers. The classical functions—planning, organizing, staffing, directing, coordinating, reporting, and budgeting—were identified in 1937 by Luther Gulick. To complement these, a manager also needs behavioral science knowledge and human relations skills. In addition,

managers must know how to use automated data processing, management information systems, computer graphics, office automation and related systems, and management analysis. They

must have a basic understanding of computer applications, data base management, teleprocessing, and numerous other fast-developing technologies.

To show the interrelatedness of the three sets of skills, Bledsoe adds control to the planning, organizing, staffing, and directing functions Gulick identified.

The chart below, adapted from Bledsoe's text, gives examples of how planning, organizing, staffing, directing, and control use aspects of technology in the 1980's.

Bledsoe concludes this section of his article by stressing that the application of technology to an individual's work (and, we would add, to all management functions), must be handled with care. Unless communicated as an opportunity for improved individual feedback (or management effectiveness) rather than as a negative control, the long-term costs may well be greater than any short-term returns.

The *Bureaucrat* may be read in GAO's Technical Library or ordered from P.O. Box 347, Arlington, VA 22210, (301) 279-9445.

Annual Report of the Auditor General of Canada, 1983

When the Auditor General of Canada, Kenneth M. Dye, presented his 1983 an-

nual report to Canada's House of Commons in December, the Canadian media and Parliament showed considerable interest in several high-profile matters. Among them were Mr. Dye's comments on the financial statements and accountability of Canada's government-owned Crown corporations and his office's government-wide studies in three key areas: program evaluation, computers, and economic forecasting. Of relevance to the theme of management trends was a study of constraints to productive management in the public sector. This comprises chapter 2 of the Auditor General's annual report for the fiscal year ended March 31, 1983.

In his remarks about chapter 2, Mr. Dye said that a political constraint in productive management was that

managers find at times that they would not get political support if they proposed expenditure reductions by cutting services or the level of service to the public... Managers also find that they are overburdened with controls; there is too much bureaucratic red tape, too many forms, procedures—and that is an area of opportunity... for the Parliament and government, and indeed the senior ministers, to take note of.

Mr. Dye also thought that "managers find they have few incentives and many disincentives to improve productivity."

These remarks link directly to the recommendations of the National

Academy of Public Administration (NAPA) study of managerial effectiveness, entitled "Revitalizing Federal Management: Managers and The Overburdened Systems," summarized in "Briefcase" in the spring 1983 / view. NAPA noted that the intermanagement processes of the U.S. federal government also have become complex and rigid that they must be changed. Readers who would like to compare issues between the NAPA study and the Canadian Auditor General's annual report or read annual reports from a large number of countries may do so at the Office of Foreign Visitor and International Audit Organization Liaison, GAO headquarters room 7131.

Eliminating Sexist Language

Sexist language is using words or references that exclude a particular group(s) in a sentence. In the *Business Writer*, published by Lawrence Ragland Communications, Merriellyn Kett suggests a number of solutions for writers when he/she is confronted with a sentence that is gender ambiguous. Kett says, for example, that in most cases, pluralizing is one way to overcome the problem of the gender "he." Thus, the earlier sentence could be rewritten as: "Kett suggests several solutions for writers confronted with a sentence such as this one." Kett's

Management Competency	1980's Technology Applied
Planning (incorporates numerous elements)	<ul style="list-style-type: none"> • forecasting tools and information systems • human participation in setting goals • automated systems that extrapolate past performance • humanized systems such as planning retreats and brainstorming • microcomputers that develop planning aids such as charts and graphs • ADP and telecommunications which make products of planning and result accessible • computer simulations that allow managers to assess options quickly
Organization/reorganization (a multi-phased activity)	<ul style="list-style-type: none"> • Program Evaluation Review Technique (PERT) to analyze aspects of the organization • electronic mail to simultaneously announce and track reorganization • data base management, simulations, and models of "best" organization components • behavioral theory to "unfreeze" and "refreeze" attitudes about change • management theory on organizational structures • socio/technical interaction and group dynamics skills
Staffing (a technologically improved process)	<ul style="list-style-type: none"> • aids to process of assigning staff to jobs (Myers-Briggs Type Indicator, e.g.) • equipment to rapidly screen applicants • programmed learning and computer assisted instruction to speed training • videotape feedback for improved interviewer skills
Directing (a people-to-people skill)	<ul style="list-style-type: none"> • electronic mail and computer controlled in-boxes • reader-controlled responses at computer keyboard • computer storage of procedures and directions • automatic calendaring and automated spreadsheets • data management and menu capabilities
Control (the greatest potential for impact)	<ul style="list-style-type: none"> • computer recorded transactions • instant summaries of results to supervisors • automated control systems to signal deviations from standards

pluralizing solves most of the generic ambiguities in a report and will not call attention to itself. Kett warns that if you start in the plural, stick to the plural.

Another solution is to revise the sentence. For example, "The employee will not know what is expected of him unless he has had an opportunity to work through the procedure with his partner," becomes "The employee will not know what is expected without an opportunity first to work through the procedure with a partner." Sentence revision works especially well when writing about one-to-one relationships which would be confused by pluralizing.

Deleting pronouns might also be tried: "An ideologue is a person who takes a rigid and uncompromising stand for the sake of his principles," becomes "An ideologue is a person who takes a rigid and uncompromising stand for the sake of principle."

Repeating the noun is another way out: "Take your broker's suggestions seriously. A broker knows..." Other ways to eliminate sexist language include substituting an article (a, an, the) for the pronoun, using synonyms, and compounding the sentence so that repeating the pronoun or noun becomes unnecessary. Compounding turns "Take your broker's suggestions seriously. He knows what the market is doing, and he can make an educated guess..." into "Take your broker's suggestions seriously. A broker knows what the market is doing and can make an educated guess about what it will do in the future."

Kett also suggests alternating compound pronouns in the following manner: "Let each workshop member participate. Did Fred have an opportunity to describe the situation in *his* department? Did Clare get a chance to share *her* insights?" Kett warns, however, that in alternating pronouns, the writer must remember not to include women parenthetically. Parentheses of commas suggest, Kett says, that the inclusion of women was an afterthought or a concession, "and that's certainly not the conclusion you wish your readers to draw."

For a copy of Merrielyn Kett's *How To Avoid Sexism*, contact Lawrence Ragan Communications, Inc., at (312) 972-8245. The *GAO Editorial Style Guide* also discusses sexist language on pages 28 through 30. Copies of the *Style Guide* are available from the Writing Resources Branch in the GAO building, room 4528.

Career Guides: Not for Women Only

Sexist implications aside, three "women's" publications also offer excellent information on career development for both sexes. *Women's Work*, *Executive Female*, and *Savvy* each has sections on management strategies, business publications, communication skills, and career trends. Each contains stimulating, informative reading for professionals who want to move ahead. One reader of *Women's Work* (WW) recently wrote to an editor that her husband laments, "There ought to be a similar publication for men." Indeed, both men and women in accounting, ADP, administration, and related fields would be impressed with the variety of topics in the three magazines that apply to their work.

Goals

A comparison of contents in the January/February 1984 issues resulted in a career information "audit trail." In its "Tools" section, for example, *Executive Female* describes the design of a work paper for your own goals. A goal ledger enables you to schedule your ideas about career satisfaction, learning and education, personal relationships, leisure satisfaction, status and respect, spiritual growth and religion, and other goals that may not fit into those categories. Next you can list your specific goals, rate their importance, and consider whether there is a conflict between these goals and others. After rating your goals in each area, you should examine the resources and abilities you have to meet them. Then, examine the helps and hurdles to achieving your goals and plan the specific steps needed to follow through. A final, but often neglected step in your personal goal audit, is perhaps the best part: Plan ahead for the reward you will enjoy and savor the achievement of your goal.

Appraisals

Should your goal ledger not help you achieve, a performance appraisal might be in order. To guide supervisors in preparing one, and to encourage employees to share the work, WW offers hints on how to make a feedback session mutually beneficial. All the suggestions urge a manager-as-coach (not critic) approach. GAO staff will find many similarities between WW's steps and their own training in skills for performance and career development, a popular in-house course in recent years.

Job Changes

Let us imagine that neither well-honed goals nor a well-delivered appraisal serve to keep you on track. Savvy tells how to leave a job in style—by resigning with tact and finesse. Career consultants warn against the "radical resignation"—one in which people dump the contents of their desks all over their offices, destroy their files, and throw an inkwell—(floppy disk) against the wall. With such moves, they set "fire to their bridges" when they leave a job and they are the only ones who will get burned.

Before you do all this, however, the more thoughtful, potential job changers among you can ask some questions. Among the most common:

- Should I keep the resignation a surprise until the last possible moment?
- How much notice should I give?
- Should the notice be oral or written?
- Who gets the news first?
- Should I offer to train my successor?

Savvy prints case histories that help you answer these questions for yourself. The whole message, according to Barbara Berg, president of the Center for Business Advancement in Cleveland is, "Resign gracefully." She advises that the situation should be understood for what it is: a shift in an economic relationship. It is important to leave any job, or change a career path, with a sense of good will. Mutual respect can be enhanced on one level by leaving projects in good working order. On another level, you need to keep negative emotions in check. If you present your case for leaving courteously, it will probably be accepted in kind.

Survival Skills

Suppose your career path goes awry, and you need some help to survive without a paycheck. WW offers some strategies for financial and emotional well-being while you are reevaluating your goals. These can motivate both men and women to stay on the career trail.

Salary Surveys—Results for Accountants

Salaries and jobs are increasing, but an earnings "gender gap" in the large work force remains. Those are the conclusions from reports on current salary statistics in *Women's Work* (WW) and *Executive Female*, two magazines discussed in the preceding "Briefcase" item. WW summarized salaries in major professional fields, including

accounting, while *Executive Female* compared aggregate incomes between men and women. The following is a sampler of trends and statistics from the two reports.

According to *WW*, women are moving into higher paying jobs. Figures from the Bureau of Labor Statistics (BLS) cited in this report show that nearly 40 percent of all accountants were women in 1983. This is up from 25 percent in 1970. Women also make up 28 percent of all managers and administrators, up from 16 percent in 1973. Education and training continue to be key factors in improving earning power. In the 1990's, a 25-34 percent growth in jobs is predicted for accountants.

Computer sciences also show promising hiring trends. BLS predicts that by 1990 there could be as much as an 80-percent job growth for systems analysts. Similarly, opportunities seem to be opening up in financial services, with 1.5 million new jobs predicted by 1990. People in accounting, insurance, and banking will benefit.

In terms of overall salary growth, *Executive Female* points out that a meaningful comparison can be made between members of both sexes who worked year-round. In 1982 women achieved 63 percent of men's incomes. A big reason for the gap is that "until recently, while men remained on the job for longer time frames, women moved in and out of the work place for a variety of reasons."

This gap is exemplified by some differences in weekly earnings of workers in occupations whose male employment is about 50,000 and whose female employment is about 50,000. Figures from BLS's Current Population Survey, 1982, on occupations related to work at GAO and other organizations include the following distribution of earnings among the sexes. (See chart.)

What will it take to improve the financial balance between the sexes? According to *Executive Female*, at the entry level, 20-24 year old women who work year-round, full-time:

earn 87 percent of what men do, but by the time they reach the 35-44 year old category, the male's peak income years, the ratio slips to 59 percent. As career-minded females become a greater presence among working women, the earnings gap will continue to diminish.

GAO Fraud Hotline and Related Resources

GAO's Fraud Hotline, which marked its fifth anniversary this year, provides a focus for reporting on allegations of wrongdoing involving federal funds. The agency has released a report on the Hotline's major accomplishments from 1979-1984, one of which was the handling of over 53,000 calls. Since its inception, the Hotline has generated interest in its operations from federal, state, and local government departments. Numerous foreign visitors to GAO have toured the Hotline facilities and found its procedures of potential relevance to audit work in their own countries.

Closer to home, two publications may be useful to readers who need to keep up to date on indicators of fraud in housing and defense. One is the *Fraud Information Bulletin*, published by the Office of Inspector General at the Department of Housing and Urban Development (HUD). The bulletins were first published 4 years ago to raise the fraud awareness of HUD auditors, investigators, and program staff. By now there are nearly 20 bulletins in print, including three basic types:

- Specific HUD program-related, such as community development block grant rehabilitation activities and subgrantee problems.
- Multiprogram applicability, such as procurement-contract award process and accountability monitoring.
- Administrative/personnel-related, such as travel and time and attendance.

As with GAO's Fraud Hotline, interest in the bulletins is wide-ranging. They are mailed to nearly 1,500 cities, counties, and grant sources who regularly

deal with HUD.

A second publication, the *Fraud Awareness Letter*, is designed to alert Department of Defense (DOD) management to possible fraud within agency programs. The DOD Council on Integrity and Management Improvement publishes the letter to alert readers to topics such as travel fraud, bid rigging, and fraud in maintenance contracts. Volume II, No. 1, highlights Executive Order 12448. The order delegates to the head of each executive department, military department, and executive agency authority to declare void any government contracts obtained through bribery, graft, or conflict of interest. The order provides that implementing regulations will be jointly issued by the Secretary of Defense, the Administrator of the General Services Administration, and the Administrator of the National Aeronautics and Space Administration.

This edition of the letter also contains summaries of significant cases involving product substitution, antitrust violations, and cost mischarging—three major categories of fraud in DOD programs which were discussed in earlier fraud letters.

To obtain copies of the GAO Fraud Hotline report, call (202) 275-8551. Wally White at HUD, (202) 426-6493, can provide copies and more information about the *Fraud Information Bulletin*. Interested persons can contact Bruce Drucker at DOD, (202) 694-8957, about the *Fraud Awareness Letter* or obtain a copy at the GAO Technical Library.

Accounting Update

State and Local Governments Get New Standard-Setting Body

With the establishment of the new Government Accounting Standards Board (GASB) in January 1984, state and local governments will have a single authority responsible for setting accounting and financial reporting standards.

The new GASB is the public-sector counterpart of the Financial Accounting Standards Board (FASB), which sets accounting principles and standards for the private sector. It has taken almost 5 years for the various organizations involved in establishing GASB to reach a final agreement on its jurisdiction and structure. The last major issue concerned the fact that cer-

Occupation	Weekly Earnings: Men	Weekly Earnings: Women	Earnings Ratio: % Women to Men
Lawyer	653	492	75.3
Social Scientist	580	420	72.4
Computer Systems Analyst	568	428	75.3
Operations and Systems Analyst	547	417	76.2
Personnel and Labor-Relations Worker	530	354	66.7
College and University Teacher	528	415	78.5
Public Administrator	501	392	78.2
Computer Programmer	478	382	79.9
Accountant	468	325	69.4
Vocational & Educational Counselor	459	348	75.8
Editor and Reporter	451	325	72.0

See Briefcase, pg. 32

Accounting and Financial Management Division Restructured

In January, Comptroller General Bowsher announced the restructure of the Accounting and Financial Management Division (AFMD) to spearhead GAO's financial management role. "One of my aims as Comptroller General is to foster the development of a comprehensive financial management structure that would be government-wide in scope, serving the needs of both the Congress and the executive branch," Mr. Bowsher said. Consequently, the division will have two primary missions:

- Spearheading GAO's efforts to improve financial management throughout the federal government. This will include GAO's annual review of agencies' Financial Integrity Act reporting and, building upon that work, eventually performing an annual audit of the consolidated financial statements of the federal government. GAO also will foster the development of a modern government-wide integrated budget and accounting system.
- Continuing to serve the Congress by conducting reviews in the financial auditing, accounting, and budgetary disciplines. This will include the responsibility for financial auditing, accounting systems policy and review, budget systems review and information services, Financial Integrity Act reporting, intergovernmental audit forums, the Fraud Hotline, and GAO representation on related professional bodies in the accounting, auditing, and budgetary disciplines, among other important roles.

Fred Wolf will be AFMD director; his biography appears in the "GAO Staff Changes" section.

United States-France Decentralization Colloquium

Decentralization policy and practice in the United States and France was the focus of discussions during the first Bilateral Colloquium on Public Administration convened by the American Consortium for International Public Administration and the French Institute of Administrative Sciences.

Four French and nine U.S. participants met in Washington, D.C., for the 2-day sessions on December 9-10, 1983, hosted at GAO by Comptroller General Charles Bowsher. The meeting provided an opportunity for the French and American participants to exchange information on national decentralization policy (termed "New Federalism" in the United States), structural changes in the intergovernmental systems, and the effects of decentralization policy on local governments in France and the United States.

The colloquium discussion topics included Background on the Intergovernmental Systems in the United States and France, Current Trends in Decentralization, and the Impact of Decentralization on Mid-Size Cities. Prepared papers were presented and discussed by the French and U.S. participants. The presentations also provoked dialogue between the audience and the participants.

General discussion of decentralization in France was presented by Bernard Chenot, President of the French Institute of Administrative Sciences. Celine Wiener, Secretary-General of the French Institute of Administrative Sciences, presented a paper on "The Institutional Framework of Decentralization in France." The effects of French administrative reforms on local organization—the municipality, the department, and the region—were discussed by Dominique Schmitt, director of services in the region of Lorraine, in his presentation, "Local Community Reforms in France," and by Michel Le Clainche, prefect of Etampes, in his presentation "Decentralization Underway."

Different perspectives on decentralization in the U.S. governmental system were presented by Paul Posner, intergovernmental issue coordinator, U.S. General Accounting Office. Alfred Diamont, professor of Political Science and West European Studies, Indiana University; Vivian Schmidt, professor of Management, University of Massachusetts; and Donald C. Stone, adjunct professor of Public Management, School of Urban and Public Affairs, Carnegie-Mellon University, examined decentralization in both the French and U.S. contexts. Current U.S. trends in decentralization were discussed by James Kelly, deputy associate director for Management Reform in the Office of Manage-



ment and Budget; James Mallory, deputy director and director of Training for the National Association of State Budget Officers; and Gene Dodaro, group director for Intergovernmental Relations at the U.S. General Accounting Office.

The impact of U.S. decentralization and efforts to cope with such impact at local levels were discussed by Wayne Anderson, Secretary of Administration and Finance for the State of Virginia. Jan Perkins, deputy city manager for the city of Grand Rapids, Michigan, provided a local government's perspective on New Federalism. Grand Rapids' economic constraints and the city's policy response to the Reagan administration's New Federalism initiatives were highlighted in Ms. Perkins' presentation "Grand Rapids, Michigan: Local Government Response to New Federalism."

The colloquium's closing session on the impact of decentralization at the local levels in France and the United States appeared to offer the most useful opportunity for a profitable exchange of information on the decentralization reform efforts in the two national contexts. Is it possible that the fiscal measures implemented by the City of Grand Rapids, in response to its increased local responsibilities, can be practically adopted and adapted by the city of Metz in the Lorraine region to solve its heightened fiscal constraints under France's decentralization reforms?

Despite the political and administrative differences between France and the United States, the initial exchange of national decentralization experiences was a most positive international community interchange of informational resources.

A second colloquium session will be held in Paris and the following session will return to Washington, D.C. A report on the decentralization colloquium is forthcoming. Further details on the bilateral meetings may be obtained from the AICPA Secretariat, 1120 G Street, NW, Suite 540, Washington, D.C. 20005 (202) 347-3190.

OOHD Instructors Recognized

In a special recognition ceremony, GAO staff who served the Office of Organization and Human Development (OOHD) as instructors in various training programs in 1983 were given Certificates of Appreciation for their efforts. In fiscal year 1983, GAO offered 677 courses in which 8,540 individuals participated.

Mr. Bowsher noted that GAO is



Jan Perkins presenting the key to the City of Grand Rapids to Bernard Chenot, President of the French Institute of Administrative Sciences.

well on its way to rebuilding its training program and that developing GAO's human resources must be the agency's top priority. The January 1984 ceremony capped a 3-day conference for new and experienced instructors. The purpose of the conference was to allow instructors to meet with course directors and managers to discuss course content and delivery and to review and polish teaching techniques. It also served as a forum for experienced instructors to share their expertise with those just starting out. Staff interested in sharing its knowledge and experience with others in GAO's training efforts should contact Lin Weeks of the Training Branch at (202) 275-9252.

1983 Annual Report Released

GAO's *Annual Report* for fiscal year 1983 is again a two-volume document. The maroon-covered volume one highlights GAO's work in eight areas—defense, chemical warfare, international security assistance, potential energy shortages, health, nine-digit ZIP code, debt collections, and legal decisions on federal spending. It is 20 pages long and uses pictures and charts throughout. The gray-covered volume two catalogs GAO's reports and provides detailed information on GAO's activities, legislative recommendations, and accomplishments.

Copies can be obtained through the Document Handling and Information Services Facility, P.O. Box 6015, Gaithersburg, MD 20760, (202) 275-6241.

Recruiting Status

In concert with GAO's planned expansion of staff resources, recruiting is on the upswing. The recruitment program includes the establishment of a GAO-wide recruitment network. A full-color brochure entitled "GAO: Working for the People" and an in-house "Recruiter's Update" have been published. One section of the Update gives information on the condition of the labor market in government and private industry. Some not-so-good news for job seekers is that the Bureau of Labor Statistics is predicting a surplus of 2.3 million college graduates in the 1980's labor force.

Coincidentally, the American Institute of Certified Public Accountants (AICPA) has offered some clues about those students who may stand out in the surplus and have a better chance of getting hired. Educators conducted a study for AICPA and found the top basic traits among leading accounting students were to read with comprehension, reason logically, recognize relevant data, write effectively, and make practical judgments. AICPA then surveyed practitioners, who said that the top skills used in practice were written and oral communications and human relations.

GAO recruiters, whose qualifications also should include good interpersonal skills and judgment, will be looking for 112 entry-level staff with backgrounds in accounting, business administration, public administration, and computer science in fiscal year

See Location, pg. 32

Manager's Corner

This feature was coordinated by Dave Anderson and Sande Lehrer, Office of Organization and Human Development.

This issue of "Manager's Corner" focuses on effective meetings. Its importance is due to the amount of time individuals spend in meetings and the expectations that organizations have for their results. This is dramatically pointed out in findings of a recent study which indicated that mid-level managers spend approximately 35 percent of the work week in meetings while those at the top management level spend up to 50 percent or more of their time in these settings. Andrew Grove, whose article is reviewed in this issue, further emphasizes the role meetings play in the individual and organizations' life when he defines meetings as, "nothing less than the medium through which managerial work is performed."

It's evident that meetings are here to stay. They can be an effective instrument for getting things done or they can be a great time waster, creating more problems than they solve. Considering the importance given to this management function and the time all organizational members spend in this "medium," it's crucial for those who conduct meetings, as well as those who participate in them, to extract the maximum value. While this section may not bring about any original thinking, it will certainly refocus our thoughts on an area worth rethinking.

Four members of the Senior Executive Service have reviewed articles contained in the bibliography of the end of "Manager's Corner." Their comments follow. Copies of these articles are available at the front desk of the GAO Technical Library.

"How (Why) to Run a Meeting." By Andrew S. Grove. Reviewed by Arnold P. Jones.

This article addresses an activity that consumes a large segment of every manager's time—meetings. The author, Andrew S. Grove, president of a high-tech manufacturing company, starts out with one thesis that "meetings are nothing less than the medium through which managerial work is performed." The author relates two types of meetings—process oriented and mission oriented—to what he considers to be the two basic managerial

tasks, passing along information and making decisions.

Process-oriented meetings are scheduled and continuing encounters in which information is exchanged. In the author's company and many other organizations (including GAO), three process-oriented meetings are used: the one-on-one, the staff meeting, and the operations review. The meanings are self-explanatory.

Mission-oriented meetings are convened to solve a problem. By their nature, these meetings are generally *ad hoc*. This distinguishes the mission-oriented from the process-oriented meeting.

The bulk of the article presents situations and circumstances for achieving the tasks of decisionmaking and exchanging information in the context of the meeting types he defines. The examples serve as a reminder of some of the things that can make meetings go smoothly or appear as wastes of time. The article presents no managerial tools. Most senior GAO managers have been exposed to the ideas presented in this article many times in executive development programs.

The article does, however, serve a useful purpose. It can be read quickly and related very easily to everyday situations faced by GAO managers. It jars the memory and reminds readers of things they can and need to do to be more effective on the job. In fact, I can't wait for my afternoon staff meeting; I'm really going to run it right!

"How to Make the Most of Meetings." By Eugene Raudsepp. Reviewed by Paul A. Math.

"If we didn't spend as much time in meetings as we do, we could experience a quantum advance in productivity." We often hear, and probably voice, similar complaints ourselves. We could, however, be our own worst time-management enemy by not conducting effective staff meetings.

Author Eugene Raudsepp states that most studies have shown that "meeting time is often badly misused." He outlines selective guides for dramatically improving meeting efficiency:

- Meetings should not be convened unless there is a well-defined purpose. If managers can and should make the decision, or if phone calls will serve the purpose, don't hold meetings.

- Give advance thought to the meeting room environment and the careful development of an agenda. In terms of environment, keep the group size small, meet in well-ventilated, pleasing surroundings, and arrange the seats for a feeling of fellowship, but be sensitive to nonsmokers' discomforts.

- Have a well-constructed agenda; it could mean a short meeting. A clear agenda reduces the chance of confusion. It should be circulated in advance of the scheduled meeting, but not so far ahead that participants forget the issues to be discussed.

- The leader of the meeting should spend a minimum amount of time stating the issues. Once this is done, keep to the agenda, regulate, but do not lecture or monopolize, pose good questions at vital points, clarify obscure contributions, skillfully draw out the opinions of reticent members, and succinctly summarize as soon as all have had their say.

By chance, I read this article a week before a 3-day issue area planning conference, and I found these guidelines helpful in making meeting time more productive.

"How To Run A Meeting." By Anthony Jay. Reviewed by Daniel C. White.

In such an organization as GAO, where meetings are a way of life, this article has particular relevance. The author raises the issue as to why any single meeting may be a waste of time, an irritant, or a barrier to achieving an organization's objectives. Jay says the answer lies in the fact that all sorts of human crosscurrents can sweep the discussion off course, and errors of psychology and technique on the leader's part can defeat its purposes.

The author's discussion covers the function of a meeting, the distinction in size and type of meetings, ways to define the objectives, making preparations, the leader's role, and ways to conduct a meeting. More important, the author sets forth several guidelines for coping with many problems that may arise in the course of meetings and suggests how a meeting may be better structured to achieve its ends.

Jay makes several key observations that are critical to the success of a meeting:

- The most important question one should ask is, "What is this meeting intended to achieve?" Unless the purpose is clear, there is a grave danger that it will be a waste of everyone's time.

- An agenda is by far the most important piece of paper for a meeting. Properly drawn up, it serves to speed the

meeting along and clarify the goals.

- The leader's self-indulgence is the greatest single barrier to the success of a meeting. A leader's first duty is to be aware of the temptation to dominate the meeting to the exclusion of others.
- Perhaps one of the common problems is the failure to recognize when a meeting reaches a point of no return. Too often discussions go on too long after the objectives were achieved.

Shortly after reading this article, I was involved in several meetings, both as a leader and a participant. I found myself thinking about the article and was able to recognize some of the pitfalls mentioned by the author and adapt some of the techniques suggested. I would strongly recommend this article as a reference for those involved in meeting as leaders and participants.

"Creative Meetings Through Power Sharing." By George M. Prince. Reviewed by Martin M. Ferber.

We all have walked away from meetings feeling frustrated and wondering why more was not accomplished. George

M. Prince examines the dynamics of meetings, addressing how participant behavior—especially the managers'—can inhibit the free exchange of ideas. Prince contends that managers often use persuasion, informal rewards, and punishment to lead subordinates to propose only what the manager can decide on favorably. But subordinates resent this manipulation, if they recognize it, and the result is misunderstanding and suspicion, which makes wholehearted cooperation difficult.

In Prince's view, this happens because managers use a "judgmental" style. In fact, he suggests that given our cultural emphasis on productivity and profit, efficient managers must use their power to judge important matters.

Prince's solution is for managers to shift from a judgmental to a judicious management style. This would free them to contribute skill, experience, and knowledge, but not at the expense of subordinates. Instead, they would help their staffs make larger contributions and grow.

What is a judicious manager? This can best be illustrated by the following exhibit, which contrasts the assump-

tions of a judgmental manager with those of a judicial manager.

While valid, Prince's article is now dated. For example, in the last decade, GAO has come a long way and increased all employees' awareness about such organizational issues as addressed in this article. We have (1) established an Office of Organization and Human Development, (2) experimented with participative management and other management theories, and (3) trained most staff in skills for performance and career development. Yet periodically reviewing such an article reminds us that we must constantly be aware of how others perceive and react to our words and actions.

Bibliography

Books

Bradford, L. P. *Making Meetings Work: A Guide for Leaders and Group Members.* LaJolla, CA : University Associates, 1976.

See *Manager's*, pg. 33

Judgmental Manager	Judicious Manager
The most efficient mode is to have one boss call the shots.	The most efficient mode is to make use cooperatively of the varied talents available.
I must protect my power to make decisions.	The best decision will emerge if I combine my power with that of the implementers.
I decide every course of action where I am authorized to decide.	I enlist my subordinates to devise courses of action, and contribute my thoughts as matters progress.
I must exercise all the autonomy my power permits.	I must use my power to help each subordinate develop his or her autonomy.
I use my power for my own growth.	I share my power so that my subordinates can grow as I grow.
I motivate people.	Accomplishment motivates people. I can provide opportunities for accomplishment.
I review, oversee, and control the efforts of my subordinates.	I use my experience, power, and skill to aid subordinates in accomplishing the task.
I take credit for the results of the groups I manage.	I explicitly recognize the accomplishments of subordinates.
To get results I must spot flaws and have them corrected.	To get results we must help each other overcome flaws.
When subordinates express themselves or act in ways unacceptable to me, I point out the flaws.	When subordinates express themselves or act in unacceptable ways, I assume they had reasons that made sense to them and explore the action from that point of view.
As mature people we are able to "take" put-downs and criticism without destructive consequences.	Even mature people are distressed to some degree by put-downs and criticism, and this makes cooperation difficult.
My role is to define the mission of my group.	My role in mission definition is to facilitate discovery by my subordinates and myself.
My role is to make judgments about the actions of my subordinates while they are carrying out our mission.	My role is to join my subordinates to make sure they succeed.

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 evaluation questions.

As GAO evaluators, we are in the inquiry business. So are scientists, detectives, investigative reporters, doctors (when diagnosing), judges, and many other professionals. One way of characterizing what such people do is to describe it as a question-and-answer process. In this article, we will argue that the question-answering process is a useful way to think about an audit or an evaluation, and we will give the process some structure as it applies to GAO.

The Question-and-Answer Form of Inquiry

An inquiry is a close examination of some matter in quest for information or truth. Whether we speak of audits or evaluations, a GAO project is certainly

a form of inquiry. However, GAO projects may not always be structured explicitly as a question-answering process. Yet, laying out such a process serves three purposes: to clearly articulate the precise objectives of a project; to guide the project design; and to structure the presentation of inquiry results. Though the question-answering process is not the only way to proceed, we argue here that it is an advantageous one for three reasons: (1) the task of formulating clear questions imposes a desirable discipline on the inquiry, (2) the statement of explicit questions forces attention on alternative ways to conduct the inquiry, and (3) the combination of questions and answers provides an effective way to communicate the results of our inquiries to the users.

Formulating a Good Question

Early in World War II, British merchant vessels in the Mediterranean were being heavily attacked by German aircraft. The consequent losses in lives, cargo, and ships required action. One possibility was to equip the merchant fleet with anti-aircraft guns and that was indeed done for some ships. But guns and trained gun crews were in short supply so that a debate ensued about the relative value of using anti-aircraft guns to defend merchant vessels versus other deployments.

One part of the debate focused upon the effectiveness of the ship-mounted guns. The question posed was: Are enemy planes shot down in sufficient numbers to warrant installation of anti-aircraft guns on all ships? A preliminary inquiry produced data with which to examine the consequences of experimentally fitting anti-aircraft guns to several vessels. Analysis showed enemy losses in only about 4 percent of the attacks, and this effect was thought to be too small to justify gun installation.

However, further reflection suggested that the wrong question was being posed. A more appropriate question for decisionmaking was: To what extent did using anti-aircraft guns reduce the chance of a ship being sunk? After further inquiry, the answer was found to be quite revealing. A set of data on low-level horizontal attacks, for example, showed that, of 155 ships attacked while anti-aircraft guns were firing, only 10 percent were sunk. In the same type of attacks on 71 ships which did not respond with anti-aircraft fire, 25 percent of the vessels were sunk. As the situations were comparable except for the use of anti-aircraft guns, it was reasonable to conclude that the probability of a ship being sunk was reduced 15 percent. The results were similar for dive-bombing attacks. Though few planes were shot down, evidently, the firing of anti-aircraft guns reduced the accuracy of the planes' attacks and thereby decreased the probability of severe ship damage.

The second, more cogent question, addressed defense rather than offense. It was not about shooting down enemy planes but about the survival of merchant ships. If you think of the use of anti-aircraft guns as a program, then the first question misrepresented the goal of the program to be shooting down planes. The second question more accurately reflected the goal of the program to be protecting ships. Posing the question correctly and then getting the answer to it settled the ef-

fectiveness debate, and a decision was made to fully arm the merchant fleet.

In retrospect, the appropriateness of the second question seems rather obvious, but in the early stages of an inquiry, posing a good question is often a challenging task. More an art than a science, the ability to zero in on the right questions can be as important a hallmark of a successful investigator as is skill in answering questions.

Even if the early formulation is poor, a question seems to force useful discipline on a project. It almost immediately provokes consideration of how the question can best be answered, and those considerations frequently lead to a reformulation of the question in the direction of greater precision and feasibility. Sometimes, as in the case of arming merchant vessels, it becomes evident that an early formulation of a question altogether misses the point and that a restatement which significantly alters the inquiry is necessary. In general, the process of formulating, challenging, and reformulating questions has a salutary effect on a project.

Deciding How To Get to the Answers

Armed with one or more questions, our attention naturally turns to the matter of possible ways to get answers: in other words, designing a project. At this point, another advantage of the question-answering process appears. Questions fall into categories, and these categories suggest which methodologies will be appropriate for answering the questions. Various classifications are possible, but for GAO, those which follow seem especially useful. There are two broad categories—retrospective questions and prospective questions—and six subcategories.

Retrospective questions are about the past; they comprise the traditional questions addressed by auditors and evaluators, and they can be subdivided into descriptive, normative, and cause-and-effect questions. Going back to the anti-aircraft example, we can construct examples of each kind.

A descriptive question asks for information about events or conditions. For example, a descriptive question might ask: In what proportion of attacks on armed merchant marine ships were enemy aircraft shot down? There is no comparison being asked for and no performance standard implied; just descriptive information about an event that has happened or a condition that existed in the past. Indeed, in GAO, the answer to such question is what has been referred to as the "condition."

A normative question carries with it the notion of some performance standard. In attacks on merchant marine ships, was the goal of shooting down enemy planes accomplished at least 10 percent of the time? Normative questions require an assertion about the relationship of actual performance to a standard or a norm (though not necessarily a quantitative one, as in this example). In GAO, the standard is called the "criterion."

A cause-and-effect question is a "why" question. It asks for an explanation of an event or a condition. To what extreme did the use of anti-aircraft guns reduce the chance of a ship being sunk? This is the question which was actually posed in the example from World War II. The way it is stated required that the answer be a causal statement connecting the use of anti-aircraft guns to the outcome of interest: the chances that a ship will be sunk by enemy aircraft.

The reason for distinguishing among these three types of questions is that they require different methodologies for obtaining answers. Generally speaking, cause-and-effect questions are methodologically more demanding than normative ones which, in turn, are more demanding than descriptive questions. In planning an audit or an evaluation, it is therefore important to be clear about which kind of question we are trying to answer. The Methodology Transfer Paper entitled "Designing Evaluations" (soon to be published by GAO's Program Evaluation and Methodology Division) discusses the link between retrospective questions and designs in much greater detail than we can do here.

Prospective questions, which form the second broad category, are questions about the future. Because they involve forecasting or projecting, the answers to prospective questions usually require a methodology different from retrospective questions. A common type of question is: What effects are to be expected if the government pursues policy A? Or policy B? Prospective questions, which form the smaller part of GAO's work, can also be subcategorized into descriptive, normative, and cause-and-effect types, but we will not examine them further here.

Presenting the Results of an Inquiry

Aristotle claimed that all knowledge could be classified as answers to four



Automatic Data Processing: A Career Challenge

Sanford F. Reigle

Mr. Reigle is an evaluator in the Cincinnati Regional Office. He joined GAO in 1975 after receiving an A.A. degree in accounting and a B.B.A. with high honors from Ohio University. He is a member of the Electronic Data Processing (EDP) Auditors Association. He received a Certificate of Merit in 1980 and two Special Commendation Awards in 1983.

Many GAO evaluators are concerned with staying effective in today's automated audit environment. If GAO's history supposes the future, their concerns are well founded, for this agency's history represents change.¹ In the past, a major shift in the audit environment required GAO staffers to acquire new skills. Those staff with the requisite abilities prospered. With GAO's role continuing to change, the agency's staff will once again need to learn new job skills.

GAO's Changing Roles

Since its inception in 1921, GAO has constantly met new challenges in response to evolutionary changes in the federal government. In its first 25 years, GAO primarily did centralized voucher audits and determined the disbursement legality of federal funds. Clerical, investigative, and legal staff performed the activities required of these functions.

In 1945, the Government Corporation Control Act gave GAO new functions. The act directed GAO to audit government corporations using commercial techniques. Because its staff did not have the skills to apply these techniques, GAO began to hire accountants.

Five years later, the Budget and Accounting Procedures Act further broadened the scope of GAO's functions. It introduced the comprehensive audit concept, which included (1) studying relevant laws and legislative histories; (2) reviewing agency policies, procedures, and practices; (3) evaluat-

ing efficient and effective funds application; (4) verifying individual transactions; and (5) reporting findings upon audit completion. In addition, GAO took a more policy-setting and leadership role in the accounting field for other federal agencies. To respond immediately to the Budget and Accounting Procedures Act meant establishing regional offices and agency-site audit staff. Changes affecting staff skills, however, were less immediate and more subtle. For the next 10 to 15 years, GAO worked to shed its "green eyeshade" clerical image, striving to become instead a professional audit organization.

During the 1960's and 1970's, a series of congressional hearings, rulings, and acts steadily moved GAO toward taking a broader view of federal programs with examination of more agencies and issues. GAO's work gravitated from financial and management auditing toward program effectiveness reviews. As before, this shift required new staff skills. Training in accounting and finance did not provide the analytical skills or knowledge needed for effectiveness reviews. As a result, the professional accountant staff was gradually supplemented by people who had degrees in economics, statistics, public administration, computer technology, and other disciplines.

Today's GAO has moved from an accounting organization to one doing professional evaluation, using a multidisciplinary staff with distinctive knowledge and abilities. Dramatic changes, however, are again occurring in GAO's audit environment. Such changes, realistically, will require commensurate changes in audit approaches and staff skills.

The Changing Audit Environment

The ever more rapid advance in com-

puter technology and the government's increasing reliance on automatic data processing (ADP) are dramatically changing the GAO audit environment. The computer automation explosion challenges the general evaluator's ability to develop effective audit approaches.

Computer Advances

Although the idea for computers was developed in the 1830's, the computer era dawned in the 1940's when John Von Neumann, a mathematician, developed the idea of storing sets of instructions in a machine memory.² The first computer advancements, in the 1950's, concentrated on making machines faster and more reliable. In the first computers, software (the programs or sets of instructions that run the machines) were punch-oriented with single applications. These "batch" systems required single, relatively simple programs to process data. In succeeding decades, computer advancement gained momentum and was broadened to include software. Computers changed from batch-oriented card systems to multiprogramming or time-sharing systems, using magnetic tape and disks to store voluminous data. Developing remote terminals and telecommunications further enhanced the advance toward multiprogramming systems. Applications changed from simple, single programs to extremely complex systems with on-line retrieval, updating functions, and extensive telecommunications.

¹Sperry, Roger L., Timothy D. Desmond, Kathi F. McGraw, and Barbara Schmitt, GAO 1966-1981, *An Administrative History*. U.S. Government Printing Office, 1981, pp. 9-13, 35-40, 70-102, 254.

²The World Book Encyclopedia, Vol. 4, pp. 744b, 745.

Federal ADP Use

Ever since the computer era began, the federal government has been a steady catalyst for technological advancement. Some of the first electronic analog computers were used during World War II to help aim anti-aircraft guns. In 1951, the Bureau of the Census received the first UNIVAC. Understandably, as the computer became more efficient and effective to operate, federal agencies automated more and more manual tasks. It is not precisely known to what degree federal agencies have automated their operations during the last 3 decades. Indications are, however, that computer use is massive and ever growing.

Today, the federal government spends more than \$15 billion annually to computer-process transactions and data that affect agency financial and information resources and management decisionmaking. Some agencies could function at reduced operational levels without computers, but most would find it impossible.³ The abundant benefits that derive from automation will likely mean more reliance on the computer.

Technology, however, is a two-edged sword. In addition to obvious benefits, advances in computer technology and increased ADP use also provide new control and audit problems for agencies and auditors. Advances that occur often exceed management abilities to control and effectively use the new capabilities. Moreover, the increasing federal dependence on data automation vastly enlarges the potential for catastrophic losses.

GAO has previously reported that costs to program the computer for specific tasks often are much greater than anticipated. ADP projects are frequently late and, in many cases, abandoned, even after much effort has been expended. Software is often unreliable, some programs fail to execute, and others produce incorrect results. These government-wide findings show that many federal agencies are not adequately controlling computer use. They may be unnecessarily spending millions of dollars each year for non-cost-effective computer operations.

New Audit Challenges

More critical to the GAO evaluator are indications that this advanced technology requires new auditor skills and more effective audit methods. Ever-changing systems, repeated upgrading of hardware, more concentrated data bases, and fewer controls to separate duties characterize the

modern audit environment. Traditional activities and control are often eliminated and new ones created. Shifting from manual to automated operations also creates new and increased threats to the agency transaction process. These threats include whether the process is complete, whether it has proper authorization, and whether it can be "reconstructed" (i.e., the ability to restore original data if, for some unforeseen reason, data are destroyed). In turn, these threats necessitate new control methods, audit tools, and techniques for examining computer-produced evidence.

With the computer becoming integral to federal agency operations, and with its use spanning all government levels and academic disciplines, the audit approach of "auditing around the computer" is as obsolete as centralized voucher audits. Further, the pervasiveness of automation may well be the harbinger of the next major audit activity change in GAO. The present approach of relying on a small expert group to advise and support the general audit staff will become increasingly less effective as audits demand more ADP skills. Regardless of professional discipline, evaluators must expand their ADP proficiency and begin doing tasks that, until now, were not even within their audit scope.

Gaining ADP Skills: A Method To Begin

The dynamics of today's audit environment are quickly changing the issue facing evaluators from whether to acquire some basic ADP understanding to how best to gain needed practical knowledge. The obvious solution to this dilemma is training. The training process, however, can take up to 6 years. In the interim, generalists can effectively participate in ADP auditing.

Response to Change

Academic and professional communities are reacting to the changing automated environment. Computer science curricula at universities are expanding, computer use is being taught in primary schools, and such organizations as the Electronic Data Processing Auditors Foundation are issuing audit guides.⁴

GAO, too, is responding. In 1979, GAO issued supplemental audit standards for auditing computer-based systems. These supplemental standards were incorporated in the 1981 revision of *Standards for Audit of Governmen-*

tal Organizations, Programs, Activities, and Functions. Also issued in 1981 were two audit guides called *Assessing Reliability of Computer Output* and *Evaluating Internal Controls in Computer-Based Systems*. In addition, data automation courses are now being offered by the Office of Organization and Human Development and the Information Management and Technology Division, which was formed to concentrate on the ADP audit.

As is evident, training courses and training tools abound. Yet, few evaluators have enthusiastically sought out these resources. Why haven't they? The reason may be "computer shock."

How To Begin

Many evaluators are in awe of the computer, adrift in the sea of technology, hit with wave after wave of innovation and technical jargon. Evaluators need some solid ground on which to regain their bearings. Once they do, evaluators can then plan strategy for acquiring technical expertise. One way to begin is to recognize two basic conditions of the ADP audit environment.

First, automating an agency's operation does not change the audit concepts and standards for providing reasonable assurance that the agency efficiently and effectively achieves its intended purpose. The general audit approach, used for manual audits, is the same for ADP audits, as is explained by William E. Perry in *Planning EDP Audits*.⁵

Similarly, general auditing objectives are common to manual and ADP audits, as former Comptroller General Elmer B. Staats made clear in a 1981 report.⁶

The second basic environmental condition is that automation does not lessen the auditor's traditional ability to do an audit. A person develops and operates computers to do work more effectively and efficiently. Guidelines, standards, and procedures govern the scope and conduct of a person's ac-

³"Greater Emphasis on Testing Needed To Make Computer Software More Reliable And Less Costly" GAO/IMTEC-84-2, Oct. 27, 1983, pp. 1-2.

⁴Li, David H., Ph.D., *Control Objectives*. EDP Auditors Foundation, Inc., 1983. Carol Stream, IL, 1980, pp. 2-3.

⁵Perry, William E., *Planning EDP Audits*. EDP Auditors Foundation, Altamonte Springs, FL, 1980, pp. 2-3.

⁶Staats, Elmer B., Comptroller General of the United States, *Standard For Audit of Governmental Organizations, Programs, Activities, And Functions*. U.S. Government Printing Office, 1981, pp. 1, 3-5, 57-62.



Integration of New Technology into Regional Office Operations

Fred Gallegos

Mr. Gallegos, manager of the Management Science Group at the Los Angeles Regional Office, joined GAO in 1972. He received his B.S. and M.B.A. degrees in data processing from California State Polytechnic University, where he developed and implemented a graduate program in EDP auditing. The author and coauthor of several books and articles related to data processing and EDP auditing, Mr. Gallegos received his Certified Information Systems Auditor designation in 1979 and his Certificate in Data Education in 1983. He has received GAO's Special Achievement and Meritorious Service Awards and is listed in *Who's Who in Finance and Industry* (1979-present). He is a member of the EDP Auditors Association, the Association for MBA Executives, and the Society for Data Educators, among other memberships.

In this article, the Los Angeles Regional Office (LARO) shares its experience over the last 3 years in coping with the influx of new technology. New methods of using computer-based technology are steadily working their way into the daily operations that support GAO's work, but many of us are unprepared for the change they will bring to our operating methodologies and audit approaches. However, executive management and others within GAO's hierarchy are beginning to discover the productivity enhancement capabilities such technology brings to the work place.

The approach the LARO management used to prepare its staff for the impact of new technology is not unique. There have been many professional articles and at least one GAO report written on how to prepare for the technological impact of office automation. However, reading about such techniques and implementing them in an operational environment are entirely different experiences. We at the LARO can hardly say that we have resolved this dilemma, but we have had valuable learning experiences—failures as well

as successes—that we would like to share with others. Our story is based on these experiences.

Need for Planning and Preparation

Since April 1981, we have been in a continual planning mode aimed at properly preparing our staff for new technology, meaning those computer-based support and other electronic tools which can increase evaluators' productivity. These tools include MICOMs (the electronic word processing and workstation equipment), microcomputers, CAPS/CAMIS (Central Assignment and Payables System/Consolidated Administrative Management Information System), dictation devices, microfiche reader/printers, etc.

Before we could formally plan for implementation of this new technology or appropriately prepare our staff for its arrival, we had to determine what the manager, evaluator, and support staff expectations and operating environment would be by the period 1985-1990. Further, this direction and goal setting had to come from one source—management—with help from such support groups as technical assistance groups and senior evaluators.

The initial meeting to set goals and direction was really a brainstorming session in which LARO management and selected staff discussed the office's studies on introducing new technologies into the work place and the potential impact they would have for management, evaluators, and administrative staff. The meeting was not an easy one. Some personnel had a built-in bias against automation and were quite comfortable with the traditional ways of doing things. For example, one senior manager believed "computers

require too much time to learn, I can do things (schedules, records of discussions) faster manually." Another staff member believed "computer-assisted tools can never make the auditor's work easier." Another common protestation was, "Instead of auditors, are we to become typists or keypunch operators, with automation?"

After this difficult first meeting, regional management agreed that a plan was needed to help guide LARO through a successful transition to this new technology. Recognizing the inevitability and the usefulness of these technologies, management set as its goals the acceptance, adaptation, and productive use of the new electronic tools. It realized that a formidable task lay ahead and that a long-range commitment to training was required.

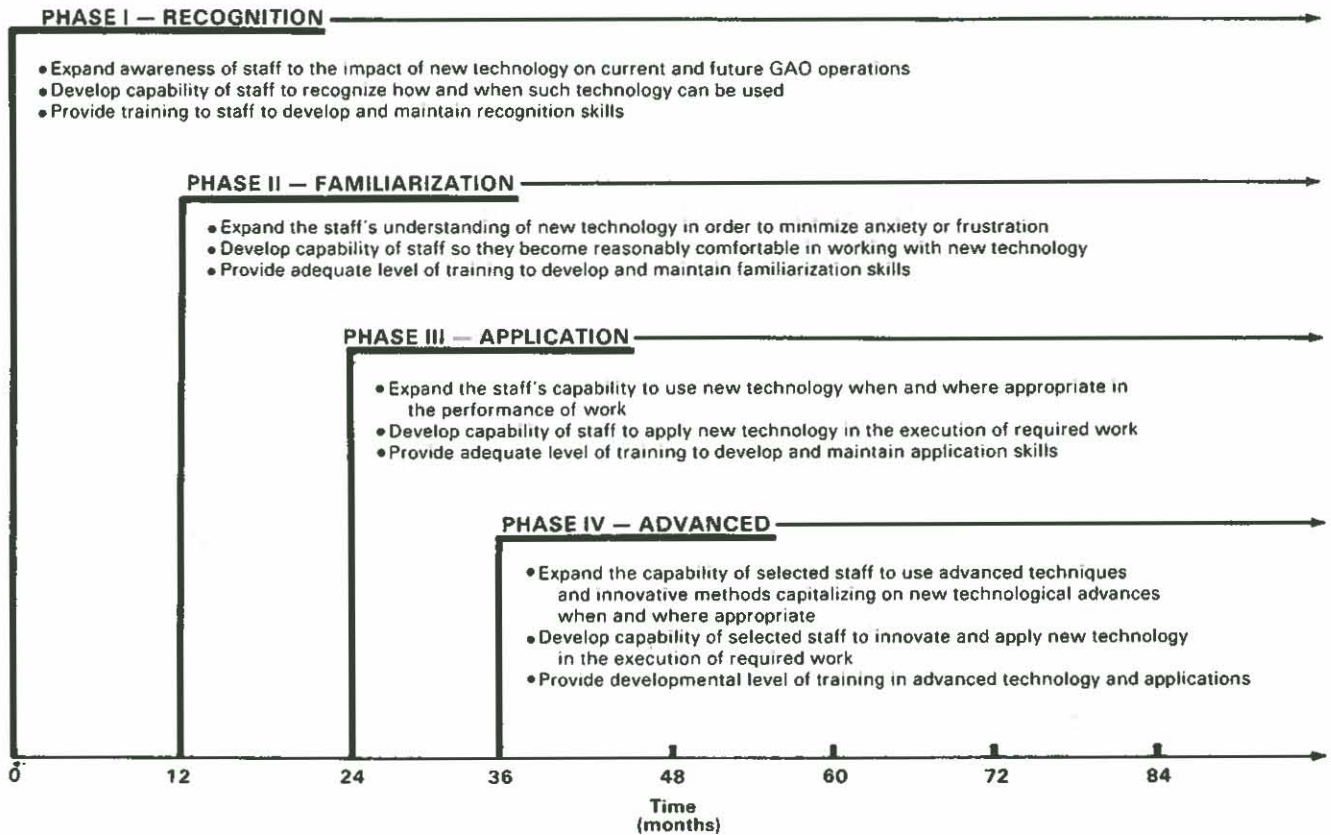
From this meeting, we formulated the basic objectives for technology integration. Designed to overcome some of the major problems encountered when introducing change, these objectives (see figure 1) include informing staff why the change is necessary, explaining how the change will affect the staff, providing the resources necessary to accomplish the change, and, most important, providing the staff with the necessary skills to operate effectively and comfortably in the new environment.

Management Support

Success in implementing plans and ensuring operational effectiveness requires management support. But taking a progressive, futuristic attitude also involves a certain amount of risk for management. Even if management has such an attitude and encourages change, the result still can be traumatic for an organization unless management properly prepares staff for the change. At the LARO, we have

Figure 1

REGIONAL TECHNOLOGY INTEGRATION OBJECTIVES



been very fortunate because management not only has been unequivocally supportive and cooperative about new technologies, but it has also made the necessary commitment to a dynamic approach to integrating technologies into operations. They recognized that the risks of doing this would be high in terms of commitment to training (formal, internal, and on-the-job) and learning curve frustrations encountered by all staff levels. But they also realized that the payoff would be a successful orientation to these emerging technologies that would help its staff adjust easily to these changes.

Further, management recognizes that people will be making mistakes and "learning through doing" as they become comfortable with the technology. Through these mistakes and learning processes, the audit staff will better understand the constraints and capabilities of the microcomputer, the MICOM, time-sharing, and/or computer-assisted audit technique support. They will become more proficient in using these electronic tools and, by experimenting in operational applications,

better understand how, when, and where such technologies can be successfully applied. The "how" means the ability to successfully apply the technology to an operational situation. The "when" means the ability to recognize a situation where technology can enhance the productivity or increase the quality of the work. The "where" means the capability to employ these tools at the place they are needed.

Education and Integration

Education and reinforcement of what has been learned (through applying the technology to audit work) are concurrent and continuous processes. They must be concurrent because whatever is learned by individuals through training becomes a building block leading staff into more advanced training. They must be continuous because training must be continually reinforced through on-the-job application. Also, training will always be continuous in a dynamic environment because of the

constant advances in technology (hardware, software, voice synthesizers, video conferencing, etc.) and because an organization such as GAO experiences a continual influx of new staff to replace losses due to attrition.

Our assumption is that an organization goes through four continuous and concurrent phases of learning about new technology:

- **RECOGNITION**—This phase involves providing all staff with a level of awareness of the new technology. It is an initial orientation in which staff not only learn to recognize how and when such technology can be used, but also enhances their understanding of the changes new technologies bring to the workplace.

- **FAMILIARIZATION**—This phase is designed to provide all staff with an added understanding of the technology. Staff, through experience and experimentation, begin to gain a level of comfort with the technology.

- **APPLICATION**—During this phase, users are able to successfully apply the technology to daily tasks, with little or no assistance. They are fully

aware of the constraints and limitations of the technology.

• **ADVANCED**—Only selected staff will evolve into this phase because a high level of technical competence is needed to successfully apply new technology to vastly complex, day-to-day problems. Staff who reach this phase will be doing research and development work.

From an educational standpoint, we had to identify the functions affected and tasks to be performed in all phases. The primary functions affected are audit support, assignment management, and administrative support. Audit support relates directly to how the technology will be applied to the audit in support of the evaluator. Assignment management, as the term implies, is management's use of assignment information for staffing, planning, and other decisionmaking purposes. Administrative support focuses on functions performed by administrative staff in support of the office's mission (i.e., word processing support, budget preparations, financial reports). The associated tasks to be accomplished for each function supported are awareness, development of skills, and training.

The integrated action plan we developed for each phase covers a 3- to 5-year time frame. Over this period of time, we hope to accomplish these actions and enhance the knowledges, skills, and abilities of all LARO staff.

Experiences—Actual Versus Planned

LARO's new technology integration plan was completed and presented to LARO management in June 1981. In July 1983, the plan was reassessed and updated based on our performance and goals. The profile of our staff skills has improved immensely because of the positive direction and support provided by management.

Not surprisingly, the staff has readily accepted new technologies and felt prepared to deal with the impact on their operational environment. The

Figure 3

WHICH COMPUTER RESOURCE IS RIGHT FOR YOUR JOB?

INFORMATION	EWS	TRS-80, COMPAQ	TIMESHARING
TYPE	numerical and text	numerical and text	numerical
SOURCE	direct data entry agency computers/ tapes other EWS and micros	direct data entry agency computers/ tapes EWS and other micros	direct entry agency computers/ tapes EWS and other micros
VOLUME 1/	up to 2500 cases	up to 10,000 cases	virtually unlimited
ANALYSIS 1/	arithmetic sorting searching wordprocessing	statistics financial modelling sorting graphics wordprocessing	advanced statistics large scale sort search, count, merge
SOFTWARE AVAILABLE	math sort wordprocessing keystroke memory graphics (simple)	COMPAQ: Supercalc Wordstar dBaseII Crosstalk PC talk TRS-80 Visicalc Superscript Profile III plus Statpak	SPSS-X SAS Dyl-Audit Wylbur

1/ The volume of data and type of analyses necessary must be looked at simultaneously. Neither factor alone can determine the computer and software appropriate for use on the job.

commitment to and support of training has been a key factor in the progressive development of all staff.

However, one inhibiting factor has been lack of easy access of the new technology to the evaluator. For example, in September 1982, LARO received its first MICOMs. By December 1982, the equipment was in use constantly, at least 90 percent of the time available in the work week. Evaluators were extremely disappointed that they could not gain access to the equipment when it was overcommitted with work. This situation prevented them from "experimenting" with and trying various analyses on the equipment. The same situation exists on our microcomputers, which are currently saturated with work. Their availability has to be

scheduled weeks in advance.

Much has transpired throughout this evolutionary process. Figure 2 represents an example of the result of LARO commitment to new technologies. Indeed, the staff has developed considerable expertise in their use and application of these emerging technologies. They are comfortable with the MICOM and microcomputers and understand how such tools can be integrated into their assignments and how productivity can be increased. The regional office publishes a quarterly newsletter called "INFOTECH NEWS" which highlights examples and illustrations of how, when, and where the staff have used technologies. As a communication-sharing device, the newsletter shows that they understand the constraints and limitations of these tools and their applications in the work place. Also, some of this growth was reported in "Microcomputers—Some Early GAO Experiences," an internal agency report issued by the Assistant Comptroller General for Operations to GAO's Automated Information Steering Committee in February 1983.

Figure 2

Percentage of LARO Staff Acquiring Knowledge of New Technology

Knowledge Phase	1981	1983	(Projected) 1985
Recognition	60	30	10
Familiarization	20	40	50
Application	15	20	30
Advanced	5	10	10
Total Staff	100%	100%	100%

See Technology, pg. 35



Crime, Abuse, and the Computer: The Problem and the Federal Experience

James R. Galloway

James R. Galloway is a senior evaluator in the Human Resources Division and is currently working toward an M.S. degree in information systems technology at George Washington University, specializing in the development and evaluation of computer systems. He is affiliated with the Data Processing Management Association and the EDP Auditors Association. Mr. Galloway received an M.B.A. and B.S. with honors from the University of Texas at Austin, and he practiced pharmacy in Texas and Virginia before joining GAO.

Superzapping. Data diddling. Trojan horses. Logic bombs. Trap doors. Salami techniques. These terms, part of the growing language of computer crime, mirror the dramatic image of today's high-tech information systems and reflect the technical sophistication of many people who misuse computer systems.

Besides the vast promises of benefit for humanity, today's high-tech information systems bring the promise of new problems, ranging from simple thefts that leave no clues to Orwellian visions of an all-knowing Big Brother.

The dramatic increase in computer ownership, along with the easy accessibility provided by expanding network services, will shortly bring the tools to commit computer crime within everyone's reach. Although most experts agree that computer misuse is a problem, no one knows the magnitude of it, and few agree on exactly what is the problem.

The federal government, with over 16,000 major computer systems, is greatly affected by computer crime.¹ The ever-increasing importance of computer technology in government and the many ways these systems can be misused make it increasingly important that federal auditors understand how computer systems can be misused and what can be done to counter and control such threats. This article addresses the need for computer crime

awareness by (1) exploring the concept of computer crime, (2) discussing major problems GAO has found in federal information system security, (3) discussing possible future developments, and (4) presenting lawmakers' responses.

Surprisingly, in 1980, witnesses testified before the Congress that computer crime was exaggerated and was not significant enough to warrant passage of a federal computer crime bill then under consideration.² However, investigations by Senator Abraham Ribicoff's Committee on Government Operations, as far back as 1976, found not only that federal computer systems were surprisingly vulnerable to fraud, but also that law enforcement officials felt handicapped by laws and procedures that were inadequately designed to address computer crime. Part of the difference in opinion on the seriousness of computer crime comes from varying concepts of what constitutes computer crime.

What Is Computer Crime?

To begin with, any attempt to define computer crime in terms that reflect the diverse ways that today's systems can be misused will likely fail. People who work with high-tech information systems have vastly different ideas on what is included in the topic. Some experts view computer crime as limited to the conventional data processing center, including the central processing unit and peripheral storage devices; however, other experts see it as involving communications facilities, management organization, administrative procedures, and software resources. Technically sophisticated attacks involving obscure changes to internal machine operations are what many people envision as computer

crime. Some experts, however, include such widespread practices as computer-directed junk mail advertising and potential infringements on privacy as computer crime.

Although a universal definition of computer crime is elusive, there is little doubt that a problem exists. It is difficult to obtain reliable data on computer-related crimes because they are not reported as such. One expert, testifying before a Senate Subcommittee on Oversight of Government Management on October 25, 1983, stated that, "No one knows the extent of computer crime and abuse." One reason for this is that much of the damage resulting from computer misuse cannot be quantified. According to two articles³ on computers, estimates of losses related to computer misuse for both private and public sectors range from \$40 million to \$3 billion. Losses in 100 computer-related cases reported in 1981 totaled about \$100 million. Although extremely broad, available estimates may be far from an accurate assessment because of underreporting. For example, according to a GAO report (FGMSD-76-27, Apr. 27, 1976), the Department of Defense estimates that only 20 percent of its overall losses are reported. Robert H. Courtney, Jr., a computer expert, testifying before the above-mentioned Senate subcommittee, said that only 10 percent of

¹U.S. General Accounting Office, "Computer-Related Fraud: Current Issues and Directions." Speech given before the 40th International Conference of the Institute of Internal Auditors by James Watts, Accounting and Financial Management Division (June 8, 1981), p. 6.

²*ibid.*, p. 2.

³Charles L. Howe, "Coping With Computer Criminals," *Datamation*, Vol. 28 (January 1982), p. 28, and "The Spreading Danger of Computer Crime," *Business Week* (Apr. 20, 1981), p. 87.

detected computer-related crimes are formally prosecuted.

Although the prevalent form of computer misuse is the unsophisticated tampering with input data (data diddling), some of the more sophisticated and innovative attacks on computer-based systems are mentioned below:

- *Superspazzing* is using special programs to secretly alter data during processing. The name derives from an IBM system that controls internal machine operations. Superspazzing usually requires extensive knowledge of the details of machine operations and is generally difficult to accomplish and difficult to detect.
- *Trojan horses* refers to covertly inserting computer instructions in a program. For example, surreptitiously putting instructions in a computer program that will direct payroll check printing to cause the system to issue illicit checks in certain situations is a common form of trojan horse. Usually, trojan horses usually require detailed knowledge of application programs and, in lengthy programs, can be difficult to detect.
- *Logic bombs* refer to illicitly built-in instructions imbedded in a program that cause an undesirable action if specified events occur. For example, a programmer may put an instruction in a payroll program that would cause the system to break down if the programmer's name is removed from the payroll.
- *Trap doors* refer to the use of intended or unintended and unspecified program features to produce an undesired result. Like superspazzing, highly trained programmers with detailed knowledge of the victimized system are required to perform this kind of activity.
- *Salami techniques* refer to the automatic accumulation of small amounts from many sources. For example, a bank programmer instructing the bank's computer to deposit the third decimal place of certain financial calculations in a personal checking account rather than to omit the figure. The above offenses not only have larger payoffs than conventional crimes but also are more difficult to prosecute. When prosecuted, computer criminals receive surprisingly light sentences. According to an article in the *Congressional Research Service Review* (July/August 1983), one expert stated that not only are the sentences light but also "In some instances, the criminal, after serving a short jail term, markets his knowledge of the computer's weaknesses."

Testifying before the previously mentioned Senate subcommittee on October 25, 1983, the Assistant Secre-

tary of the Department of the Treasury said:

An average bank robbery nets around \$20,000. If caught, bank robbers are prosecuted 90% of the time and, if convicted, will on the average be sentenced to 4 to 6 years in prison. The average crime involving electronic funds transfer is somewhere around \$500,000. If caught, perpetrators of such thievery are prosecuted only 15 to 20% of the time and, if convicted, can expect to spend only 4 to 6 months in prison.⁴

Federal Crimes and Major Federal System Vulnerabilities

Federal computer crimes have two dominant characteristics: (1) the incidents are almost always traceable to a lack of attention by top-level management and (2) the misused systems demonstrate weak procedures and operating controls that result in deficiencies, such as poor separation of duties and poor physical access controls. In a report (FGMSD-76-27, Apr. 27, 1976), GAO identified 69 instances of improper use of computers in federal activities with estimated losses of about \$2 million. GAO categorized methods used to commit these crimes as fraudulent input (62 percent), unauthorized use of facilities (26 percent), alteration of processing (23 percent), and misappropriation of output (17 percent).

In a review at 10 federal agencies, GAO found that none had ongoing, centrally directed computer security programs to assure data integrity and privacy. All the agencies had such weaknesses as the absence of top-level planning and comprehensive programs, the lack of independent security organizations with authority to recommend and enforce security measures, and the inadequate monitoring and reporting of safeguards.

Particularly significant for GAO and other auditors is that computer experts and groups assigned to evaluate computer security issues routinely find that most computer-related fraud and abuse detection is by accident or chance. A June 1983 task force report, prepared for the President's Council on Integrity and Efficiency, found that half of the computer crime cases in its study were detected by accident. To make matters worse, a high proportion of respondents surveyed during the task force study did not know whether their agency's system had ever been audited. Although the study presents explanations for this, the situation indicates a need for more comprehen-

sive, and perhaps more visible, information system auditing.

Responsibilities and Problems of Central Agencies

Four central agencies are responsible for federal policy and guidance on information system security: the Office of Management and Budget (OMB), the Office of Personnel Management (OPM), the National Telecommunications Information Agency (NTIA) in the Department of Commerce, and the General Services Administration (GSA). In addition, the National Bureau of Standards (NBS), Department of Commerce, develops technical standards used by federal and non-federal computer and telecommunications activities. A discussion of the major responsibilities of these agencies for information system security follows.

OMB is responsible for establishing policy and providing guidance to executive branch agencies on computer security. Major legislation establishing OMB's authority and responsibility include the Brooks Act, the Paperwork Reduction Act, the Privacy Act, and the Freedom of Information Act.⁵ To fulfill these responsibilities, OMB has issued three directives specifically focused on computer security.

Although OMB has a prime responsibility for assuring secure systems, GAO reported that "other than issuing circulars, OMB has not taken any further action to ensure the executive agencies' effective implementation of their information security program plans." (MASAD-82-18, Apr. 21, 1982)

OPM is responsible for establishing federal personnel security policies. OPM guidelines require security checks on personnel consistent with the sensitivity of the data for the systems at risk.⁶ The agency also conducts computer-related training sessions that include security as part of the course material.

Presidential Directive 24 charged NTIA, along with the National Security Agency, with responsibility for formulating policy guidelines for telecommu-

⁴"Computer-Related Crimes in Federal Programs" (FGMSD-76-27, Apr. 27, 1976), p. 4.

⁵Louise G. Becker, "Computer Security: An Overview of National Concerns and Challenges," Report No. 83-135 SPR, Congressional Research Service, U.S. Library of Congress (Feb. 3, 1983), p. CRS-99.

⁶Becker, p. CRS-161.

Career Management for Managers

When an organization undergoes major changes, it necessarily suggests a period of adjustment relative to the organization's structure and how it does its work. Not surprisingly, those changes will affect the members of the organization with regard to their perceived opportunities for development. In the following interview, Henry Eschwege, Frank Fee, and Gregory Ahart, Assistant Comptrollers General for Planning and Reporting, Operations, and Human Resources, respectively, discuss with Howard N. Johnson and Gil Mayhugh, Branch Managers, Office of Organization and Human Development, the importance of managers' roles in furthering career development.

Mr. Johnson: You read a lot about career management these days as an overall philosophy for guiding a career management system, particularly at GAO. What would you recommend as being important components in such a system?

Mr. Ahart: I think it's useful to think in three dimensions when you talk about career management. In GAO, as in most other organizations, there is a whole set of skills that people are expected to bring to the job. In GAO we have a very heavy component of career development which centers on specific skills relations to methodology—auditing skills and approaches. Another focus is on content and issue areas which helps us to deal with complex audits in an informed and in-depth way. And a third dimension is having the skills to manage projects and people. If we're to talk about career management, I think we need to talk about all three dimensions. Development of managers to manage people can be dealt with as a separate subject, but I don't think we can totally separate it from the dimensions of methodology and subject-matter content because of the business we are in.

Mr. Fee: I agree with the last point that Greg is making. All too often, when people talk about career management

and career development, they think it's an inseparable thing, and if they're good at career management, they'll be good at everything else. That's really not true. We are in the business of auditing and evaluating and passing on information in a useful form to other people. I happen to think we can do that while at the same time let people manage their own careers, help them manage their own careers, and of course, have our managers manage their own careers. Two things have to be present also. One is that our managers have to understand what career management is. Given the technical nature of our work and the technical nature of our backgrounds, I don't believe we can assume or should assume that managers know what that is automatically. Everybody from the Comptroller General on down has to support the idea of career management as being something we want our people to be good at. You don't want just the lower level people to be concerned with their careers, you want your managers to be concerned with their own careers and also those of the people underneath them. So I think those two have to be there, in addition to what Greg was saying.

Mr. Eschwege: To elaborate on what Frank said, I think that GAO at the very top has to have some definite policies on how it is going to manage careers and our people, and that has a lot to do with our mission. People need to know what kind of levels they can attain in the organization, provided they do certain things right and develop themselves; that needs to be spelled out. As Greg said in some other way, it's very important that people know they can move along in the organization. One of the things our people have going for them is the ability to look at how other people are managing in the various executive agencies. This gives them an

opportunity to learn and choose as their own management styles those that they see as having proven to be effective.

Mr. Mayhugh: Monroe Rathbone suggested in his studies of managers that it is incumbent upon all individuals of management to spend 15 percent of their time developing individual talent in the organization. He said this could be done through on-the-job training, through positions of leadership, and in other ways. Do you feel this concept of managers spending this amount of time developing individuals in the organization is realistic?

Mr. Fee: I don't know what Rathbone had in mind in terms of how he counted 15 percent. I find it hard to distinguish, much of the time, between day-to-day activities and the development of people. To a large extent, much of what we do in interacting with other people, talking with them, and going over their jobs with them should be to help them understand their jobs better, do the jobs better, and therefore develop them. It's hard to say, "I'm going to talk with you about the work of GAO," and, 85 percent of the way through, then say, "Now, for the next 15 percent I'm going to be giving you the things that are going to help you in your career." I don't think that it's that separable. The 15 percent, depending on how you count it, could be very low. Now, if 15 percent means only actual counseling or actual coaching; that is, sitting down with somebody and saying, "I saw you do something, therefore I'd like to see you do it a different way," then, 15 percent is an acceptable figure, but I would not want to draw it that tightly.

Mr. Mayhugh: Because of your involvement with staff from time to time on feedback on jobs and other matters, do you consider the coaching and counseling figure of 15 percent as being higher than what Rathbone says?

Mr. Fee: Much higher, I would think.

Mr. Eschwege: On the other hand, you can't say every individual needs the same amount of counseling and instruction in development. I think many of our people are self-starters; they do things for themselves, and they go out and look at what's available to help them be good managers.

Mr. Mayhugh: So, 15 percent across the board, as Rathbone states, would only be true in the sense of an average, but what I hear you saying, Henry, is that it may be appropriate to look at individuals from where they are in their careers and then give them the appropriate amount of time needed for development.

Mr. Eschwege: That's right.

Mr. Johnson: It sounds as if we are talking about a formal process versus an informal process. Frank, some of the things I heard suggest there is a lot of informal development going on at all times.

Mr. Fee: I think that it would be a mistake to try to say that our managers should spend a certain amount of time doing this, versus doing something else. I think that informal system is extremely important. If you should need a formal system, you need a formal way of sitting down with people and telling them how well they did and what they need to do to improve. But that's only a point in time. Some things happen before that, and some things are going to happen afterward, all of which have to be tied together. That's an everyday part of our work.

Mr. Ahart: You do a lot of things in working with people. What we are talking about here is a sense of awareness on the part of the manager as to which relationships with their subordinates serve a dual function. A lot of it is substantive in the sense that it is getting the work of the organization done. With the right sense of awareness about development, you use almost any situation in a way which turns it into a learning experience.

I think the point that Henry made about coaching is important. Coaching is not played out exactly the same way according to a precise formula with each individual. Most managers who are good give people what they need to help them improve, or they let them make mistakes when it's a good learning experience.

Mr. Mayhugh: I'm getting a general feeling you actively support the concept of at least a certain percentage of time, whether it's 15 percent or whatever. Do you feel that our organization is ready to do this? Does our organization value what Rathbone is saying, devoting a certain amount of time?

Mr. Eschwege: Again, I would get away from the given amount of time and speak in terms of the kinds of things that managers and top executives should do to help develop people, and then leave the flexibility as to who needs what. The awareness is very important on the part of the manager, and as I said earlier, the emphasis on development as being part of our work is vital and needs to be instilled in our people.

Mr. Johnson: In some cases, as I summarize some of the things that you've said, the amount of counseling that goes on in terms of career management could at times exceed 15 percent.

Mr. Eschwege: It may need to.

Mr. Fee: That's right. In answer to your question "do you see the organization supporting career management," I think in an overall sense the answer to that would be yes. Our responses so far and the rest of this interview will bear that out. The thing that happens, though, in any organization, is that other things also have to be done. At times we place emphasis on other aspects of our jobs, such as getting a report out on time or meeting a specific milestone. In doing that, we sometimes replace or adjust the relative priorities of all the things we see our managers doing. If you don't constantly hit on the theme of career development, it will naturally take a lower place on the value hierarchy to the point where people will begin thinking that, "Yeah, they say they support it, but their actions don't support what it is that they say." That's a constant problem any organization will run into where you've got to worry about the relative placement of all the things that people are asked to do.

Mr. Mayhugh: How do you feel we can keep a proper balance between tasks and career counseling?

Mr. Eschwege: I don't think the two are inconsistent with each other. A good manager who takes the time to instruct the person in what he or she should be doing and gives guidance along the way is going to save a lot of time at the end of that assignment when he or she views the product and finds that the guidance really helped. It's an ounce of prevention being worth more than the pound of cure. In that respect, it's not wasting or spending additional time but putting the emphasis in the right places to get that job done.

Mr. Johnson: GAO is in the process of a reorganization which permeates the divisions and regional offices. What role do you see our senior managers and executives having in this reorganization which could enhance the development of our mid-level managers?

Mr. Fee: Obviously a reorganization, any type of reorganization, has to be designed to enable us to accomplish the mission of the agency; hopefully, better and more efficiently than before. In the current reorganization, we have Chuck Bowsher's view as to how he thinks the General Accounting Office could best be responsive to the work of the Congress. His goal has been to organize us in such a way that whatever resources we have can be used and made to work well together. We can be fairly clear as to who has responsibility for what, and eventually, through that process, we would get our work out as best as we possibly can. That is a lot of what has driven the changes in the organization, and that

pertains not only to changes in the physical units but also to the idea of having comparable positions throughout the organization. The role of the senior staff in that is a different kind of a role. A lot of the senior staff are involved in helping identify how we should be organized, either through their involvement in task forces or through their interaction with the task forces. Many of them have been affected by it because their positions have been changed. We have moved a tremendous number of people around this past year. The real role in a reorganization for the senior people is to understand what the Comptroller General is trying to do and what we are trying to accomplish for him. Some of the current reorganization is well understood. Some of it is not, and that is something we still have to work on. Once it is understood and explained, it then becomes the senior manager's role to make the organization work. That is an extremely difficult job to do because you need to change the way you think about things. You need to change how you interact with other people. Also, you need to reorient your focus to the new organization, the new direction, or the new issue area, whatever it happens to be. It's being able to understand it, to adapt, and to be flexible, and then work in some ambiguity until you can make the reorganization work. At the same time, we need to demonstrate adaptability, flexibility, and the ability to work in ambiguity to our staff-level people and the people below them to help them through the reorganization. That I see as a key role for the senior people.

Mr. Ahart: I might comment more specifically on one aspect of the reorganization which affects each of the major divisions and regional offices. Henry mentioned, and I think Frank mentioned a while ago, the tendency for day-to-day work to take our attention away from some things that are important to the organization. If we looked to the assistant regional manager in the box on the organizations side, it's a very clear attempt to get a balance into the top organizational structure. You've got a deputy or assistant regional manager who worries about the technical aspects of the planning and the jobs we're doing. You've got the counterpart who worries about the internal infrastructure, including whether or not people are getting the types of assignments and the types of experiences they need in a developmental sense. So, you have a balance in the organizational setup which, for the first time, gives equal priority to some of those people for developmental opportunities

that are very important.

From that standpoint, it should help balance our priorities; raise in everybody's minds our hierarchy of values that Frank mentioned. This is a very important part of the manager's job, and whether it deserves 15 percent, 20 percent, or whatever, it deserves a constant awareness as a part of our overall function. This has to be taken care of if we are going to stay in business for very long. So we're not always making or succumbing to temptation to make that short-term trade-off, which is getting this report out a week earlier or getting the job done in lieu of training for a staff member.

Mr. Johnson: What more do we need to do to make sure that everybody in the organization understands that balance? Are we on the right track? Do we see those things happening already?

Mr. Ahart: Well, I think it's evolutionary. I think it takes experience and development. I'm not sure everybody has as good an understanding now as they'll have a year from now or 2 years from now. It will come with time, but it needs to be nurtured and developed.

Mr. Fee: That's a very important point. When this organization got started in late 1982, some of us may have been able to postulate how the balancing would take place. In all honesty, none of us really knows how that's going to happen because there are so many people involved, so many different approaches. People need to work their way through, and we need to give them the time.

I agree with Greg. A year from now, people will feel differently about how those positions are going to be working; how the operations person is going to be working versus the planning and reporting person.

Mr. Eschwege: I would like to speak to the question of reorganization and how it might affect our people who are in the divisions as opposed to the roles which are replicated at several levels of GAO. We will be having three technical divisions and four programming divisions. This gives some of our people—the Information Management and Technology Division is good example—an opportunity to get into a division where they can apply their special skills and develop themselves in those skills even further. In the case of the programming divisions, they are getting much bigger. I foresee greater opportunity for some rotation within those big divisions which in the past wasn't as easy to do when the divisions were smaller and had fewer functions. It allows us to better chart the career course of individuals by varying their assignments and responsibilities from

time to time to help round out their career development.

Mr. Fee: That's a good point, and that will be one of the outcomes of the reorganization. There is a dovetailing between those two major functions in terms of operations and report planning. They work together, and we now have a structure which allows for the movement of people and their development with a great deal more ease.

Mr. Eschwege: I'm hoping that's what will come out of it.

Mr. Mayhugh: Mr. Bowsher has indicated he wants our management staff to be technically as well as managerially qualified in the areas where they manage. How do you see the goals of developing technical expertise in our senior managers as being integrated with their generalist management responsibilities?

Mr. Eschwege: Having been on the Reports Task Force, I recognized that with things getting more complicated in this world and us getting more sophisticated, we need to be constantly concerned about our generalists getting up to speed on qualitative analysis. We made some recommendations, which are now in the process of being implemented, to identify the technical skills that even a so-called generalist would need. We're doing pretty well in involving the divisions and offices in plans to enhance these skills through additional training in the classroom and on the job. That's not to say that we haven't always required our people to be not only good managers, but also technically qualified.

Mr. Mayhugh: How would you describe the proficiency of our managers? Do you feel that there is a great deal of upgrading that we'll need to do in the technical areas, or do you feel that they are meeting a reasonable standard of expectation and knowledge?

Mr. Eschwege: You can never be complacent about these things. As more operations are put on the computers, for instance, we will need more of our people who are generalists to become more proficient in computer application. By doing our audits through the computers, by learning more about how to employ sampling techniques and applying appropriate methodologies, we can accomplish our work more efficiently and at less cost.

Mr. Fee: I would like to build on what Henry just said. He made a very important point that our staff at every level should understand. Our people are pretty proficient. They are technically sound, and they have the ability to do things, but you must constantly strive for ways to further improve your capabilities no matter what they are. Some-

one who did an audit 20 years ago can't rely on the same approach, the same methodology, the same processes to do that audit today and expect to be as efficient and as effective as we need to be in today's environment. People have to constantly try to keep abreast of the changes and the developments in their profession. To be complacent, if that's the right word, or to think that you are proficient to a point that you don't have to learn new things, moves you back as opposed to standing still.

Mr. Ahart: In response to your first question, I talked about three components: the managerial component, the technical component, and the subject-matter component. What Frank just said about complacency applies to all three components. In the same way that you would not approach an audit exactly the same way as you did 20 years ago, you don't manage a division or manage people the same way as you would have 20 years ago. Certainly, in terms of what's important to the Congress in a particular issue area, it's not the same as it was 20 years ago. Managers have a responsibility to keep themselves up to speed in each area, and we in turn have a responsibility to help them and to provide incentives.

Mr. Fee: I agree 100 percent with what Greg is saying. The staff we have now at the senior level is fairly proficient in the technical capabilities. They've had a lot of on-the-job experience and technical training. They've had much less training and experience in managing their own careers and helping other people manage theirs than they have in learning how to develop a finding or write a report. One of the things that the organization needs to do is not take for granted that, simply because people are in managerial positions, they know how to handle the "people" side, or all three sides, as Greg cited earlier. I think we can be drawn into a false sense of security which assumes that when we dub someone "manager," that person can easily handle all aspects of management. Not everyone can. They need to be taught some things; they need to have other things refreshed; they need to continue to develop and learn things. When it comes to career management, one of the things we found several years ago was that our management staff didn't know the basics of career management, and we had to develop a program with OOH to teach them. We may very well have to resurrect that program as we get in the new phase of the reorganization. We have to be very careful as managers not to assume that the positions people hold make them expert in

all aspects of management and that they don't need further development.

Mr. Johnson: Managers tend to not give high priority to career management. How do you see a rewards system encouraging positive career management practices for managers?

Mr. Ahart: Let me pick up on that, but before I do, let me talk about another aspect because I think they tie together. In terms of what kind of capability we have at the management level, we have to some degree suffered, as have many organizations, with a technical operating base. Our best technical people are moved into management positions, not always recognizing that they need help in making that transition, and they need skills that they didn't previously need when getting the technical work of the organization done was their only concern. I think we need to be attentive to that with the existing managers, not only in keeping them up to speed but perhaps to bring some up to an expected level. Tying that in with incentives, how do you structure award systems? Part of it comes from management style. I tend to be responsive to the interests of the people to whom I am responsible. If, for a period of 5 years or 5 months, the things that capture my boss' attention are reports and getting jobs done on time, and I never get a question about "How are your people doing, how is this person doing, what does this person need, or how do you manage that?", then my own hierarchy of values changes because I'm going to be responsive to the concerns which the management level above me reinforces. So in the long term and the short term, the best way to structure the rewards system is to avoid the simple annual memorandum that says, "This is important to us too, folks," and the next year another memorandum, "This is important to us, too, folks," and in between I don't hear much about it. It's got to be the same kind of a joint cost thing that we talked about earlier in terms of career development that the managers at all levels have to have—an awareness. They have to have it on their agenda; it has to be something that is vocalized. If you do something for a long period of time, it starts getting built into the rewards structure. If my boss does it often enough with me and does it consciously, it tends to get built into my thought processes in terms of valuing the persons I'm relating to and their contributions to the organization. I think that's a tough process that you don't get done in a week, or 2 weeks, or even a year. It's something you do over a long period of time and build into the basic fabric of a value system of an organiza-

tion; the basic value system from which people operate on a day-to-day activity.

Mr. Eschwege: Let me pick up on that because I think Greg is right. You don't do it overnight, but there are some signals that we've gotten in the last year or two, and Greg is a good example himself. He's the Assistant Comptroller of Human Resources, and we place a lot of value on that today. Management at all levels is getting the message that it is important to recognize that people are important resources, and that the kinds of people who are being placed into management positions improve these values. By and large, I think they have gotten there not just because of their technical abilities, which they certainly have, and for getting reports out on time, but also because they care about the people who work for them. So I'm very hopeful that, over time, we can signal through these kinds of actions to our people that it does count when managers praise their staff, not only for the number of reports they got out or the number of testimonies that they have given, but also for the fact that they brought along people who can make all this possible. I would like to see more awards in GAO which focus specifically on the way we deal with the development of the careers of our people.

Mr. Fee: There are a lot of things I think we can do to encourage this process. It takes on an added dimension when you start talking about rewarding people as a way of encouraging career development. I don't know that the giving of an award is the best way to get people to think and act positively towards people. The thing we must do is to encourage positive career management. How do we tie that idea in as an integral part of all other aspects of career management so that getting the job done is something that involves both the product and people feeling good about coming to work? That's a tough balance. I don't know whether it should be in favor of the job versus people, but I know that when it becomes 75 percent-25 percent, the people don't feel very good. Yet, at the same time, people will respond when we ask them to. But it depends on how it is done and how you approach it. We need to build it into the culture. We need to say it all the time, and it has to be a way we feel: that sense of caring about people and how they feel about coming to work that day. I think if we build that into our culture, a lot of the other things will take care of themselves. I don't know if we've given the signals yet that have told people that you should care as much as maybe the

three of us are talking about.

Mr. Johnson: The three of you are saying that good managers today are recognized more for the work they turn out, and what you would like to see happen is a balance which takes into consideration not only the work that is produced but also the people who produce that work and the climate in which it is done. How do you identify good managers who foster the positive relationship they have with people?

Mr. Fee: I know for myself that I can recognize good managers in several ways. One is obviously the way in which they tackle a task, organize it, and produce a result. Another is based on my observations of their people and how their people feel. We have many cases in GAO where we have bright people who can do a task for us, almost any task, but they don't treat their people very well while they are doing it. Some of those people made it fairly far in the organization, but a lot of them who act that way have not. They haven't had the support of the people, they haven't been able to balance or at least keep in harmony the objectives of the job and the development of the people. I think both are very important.

Mr. Ahart: Let me pick up on that because it raises the possibility that someone might read into it we're talking about a couple of things that are antagonistic as opposed to being very compatible. There's nothing inconsistent about people being very productive and feeling very good about what they are doing. I think what we need is perhaps more explicit recognition or awareness in the way we go about our day-to-day activities. The more we can help people to manage their careers and grow in their careers, and the more they can operate in a way they feel good about coming to work, the more likely they are going to be more productive. So I wouldn't want to see people thinking that you've got to make trade-offs between productivity, career management, and people management. That's not the name of the game. You manage people and you help people manage their careers not out of a sense of charity or being the good guys, but out of a sense that that's the way the organization can become more productive and more useful to society.

Mr. Eschwege: It's in the interest of managers to bring people along because it lightens managers' burdens. Having been in GAO 27 years, I'm delighted to see some of the people I knew early in their careers move into top management positions because they were in a

See *Career*, pg. 36



Carl Fenstermaker

Caution: Prescription and Patent Drugs Can Harm Your Health

Mr. Fenstermaker works in the Human Resources Division as a group director in the Congressional Response Group. From October 1979 until January 1984, he served as group director in charge of GAO's Food and Drug Administration audits. He joined GAO in 1960 after receiving a B.S./B.A. degree from Muhlenberg College in Pennsylvania. Mr. Fenstermaker has done graduate work at George Washington University and recently completed a leadership and management program at the Federal Executive Institute. He is a CPA (Virginia) and a member of the American Institute of Certified Public Accountants and the National Association of Accountants. In 1981, Mr. Fenstermaker received Certificates of Merit and Appreciation for his work on FDA activities.

The Food and Drug Administration (FDA) works in several ways to ensure that American consumers are buying safe drugs. FDA screens new drugs through an elaborate premarket testing and approval process. It annually inspects drug producers for compliance with good manufacturing practices. It continuously tracks adverse reactions associated with approved drugs. Finally, it wields potent power to either seize unsafe drugs or request manufacturers to recall them. Yet, each year, thousands of people suffer medical emergencies or even death from prescription or patent (non-prescriptive) drugs.

GAO has reviewed FDA's efforts in all these areas to see how well the agency is fulfilling its responsibilities. In this regard, GAO has found that FDA's premarket approval process takes years but still cannot guarantee absolute safety, that problems exist in inspecting drug manufacturers, that physicians and hospitals are reluctant to report adverse reactions, and that administrative and legal processes hamper efforts to remove unsafe drugs from the market. FDA has improved in these areas but needs to improve even more. Nevertheless, some prescription

and patent drugs will probably continue to pose health risks.

Approved Drugs Can Pose Health Risk

On May 19, 1982, FDA approved Eli Lilly's application to manufacture a new antiarthritic drug call "Oraflex." Approval came after extended clinical trials involving about 4,000 subjects and 2 years of marketing experience in the United Kingdom, Germany, South Africa, and Spain. The drug, considered one of the firm's most important new products, offered an advantage over most other competitive products in that it was to be taken only once a day. In less than 1 month of marketing, about 64,000 prescriptions of this drug were sold for \$1.3 million. Yet, on August 5, 1982, only 2½ months after approval, Eli Lilly agreed to suspend sales of this popular new drug. The firm had learned that the British Committee on the Safety of Medicines—the equivalent of FDA—had received reports of more than 3,500 adverse effects, including 61 deaths, thought to be associated with the drug.

In January 1980, the SmithKline company suspended sales of "Selacryn," a highly touted pill used to treat high blood pressure. This drug had been widely used for several years after FDA approval until it was discovered to have caused liver damage in some patients. Some 64 lawsuits have been brought against the firm claiming damages for adverse effects (mostly liver related) from Selacryn. One of these lawsuits reportedly was settled for about \$350,000.

In April 1982, WRC-TV in Washington, D.C., aired an hour-long documentary on the relative merits of the "P" portion of the DPT (diphtheria, pertussis, tetanus) vaccine given to virtually all

children in America about to begin the first grade. The documentary focused on several children who had suffered severe brain damage after receiving the vaccine.

In November 1980, FDA approved for marketing a new non-narcotic, non-additive oral drug, "Zomax," which provided greater pain relief than aspirin. Approval followed tests in more than 3,600 patients showing that the drug was safe and effective. FDA had evaluated data submitted by the manufacturer for 22 months. On March 4, 1983, the firm withdrew Zomax from the market following reports of five deaths due to adverse reactions associated with the drug.

In October 1982, FDA took the unusual step of switching "Alupent," a popular inhaler used by asthmatics, from prescription to over-the-counter status. The move was unusual because it came without prompting from the manufacturer. An FDA spokesman said the inhaler, which released a metered dose of medicine to unclog an asthma victim's air passages, had an unexcelled safety record through 11 years of heavy use. About the time that several companies were prepared to market this product, FDA received data from an Australian study indicating that the inhaler's principal drug strongly correlated with the deaths of 16 asthmatics. FDA later reversed its decision and returned the product to prescription status.

The Testing Process

Getting a new drug approved in the United States is a complicated process. New drugs are developed by a sponsor which can be either a drug firm, a federal agency, or an independent investigator. These sponsors are typically located at a hospital, clinic, or research

institution. Development usually begins by screening many chemical compounds in a laboratory, using animals to determine possible therapeutic activity. During these investigations, many compounds are eliminated from further screening.

When animal studies suggest that a compound may be therapeutically promising, the sponsor may want to clinically test the drug in humans. To do this, the sponsor must first get FDA approval. FDA decides whether to permit research on human subjects on the basis of whether (1) participants in the research project are adequately protected, (2) animal studies already completed and analyzed are adequate, (3) the research plan has scientific merit, and (4) the investigator is qualified.

Human testing is conducted in three phases. In phase I, the drug is administered to a few volunteers, usually healthy subjects, but sometimes patients, to determine human toxicity, metabolism, absorption, elimination, preferred route of administration, and safe dosage range.

Testing moves into phase II if there are no problems with human tolerance of the new drug. In this phase, the drug receives its initial trial run: intensive testing is done on a limited number of patients. The objective is to learn whether the drug produces the desired therapeutic effect and, if so, at what range this effect starts to show. Phase II also determines whether any adverse effects will limit the drug's usefulness.

Drugs still considered safe and effective after this testing enter phase III where hundreds and sometimes thousands of patients are investigated. Phase III measures the drug's safety and effectiveness under various conditions, in differing patient populations, or in long-term use. Phase III also measures the types and incidence of side effects, the potential for interacting with other drugs, and the information necessary for proper labeling. These studies may be controlled, non-controlled, or a combination of the two. Comparative studies, using a placebo for standard drug, are done with great care. The clinical, pharmacological, and toxicological data for a drug satisfactorily completing at least two adequate and well-coordinated phase III studies are assembled in a new drug application and submitted for FDA approval.

Each new drug application must contain all information, both favorable and unfavorable, that the sponsor has developed on the drug's safety and effectiveness. It must also contain information on how the drug is made and for quality assurance. Each applica-

tion consists of from 2 to 15 or more volumes of summary material, accompanied by 10 to 100 volumes of raw data, which sometimes occupy 100,000 to 200,000 pages.

FDA's new drug review process, and the slowness with which it is carried out, has been frequently criticized by manufacturers seeking to market new drugs. The process has also been criticized by physicians wanting to take advantage of benefits not previously available, and by consumer advocates concerned about the risks and possible unforeseen side effects associated with new drugs. As a result of requests from several congressional committees, GAO has issued two reports¹ on FDA's drug review process and made a number of recommendations aimed at speeding the review process while still ensuring patient safety. GAO's recommendations, along with those of other groups that have studied the process, have been used by the agency in rewriting its regulations for developing and reviewing new drugs and new drug applications.

Enforcing Compliance

An estimated 20,000 prescription and 200,000 to 300,000 over-the-counter drugs are marketed in the United States for human consumption. About 4,900 separate establishments are involved in formulating, testing, manufacturing, and repacking these products. The pharmaceutical industry has the primary responsibility for ensuring that the drugs it produces are safe and effective. The Federal Food, Drug, and Cosmetic Act makes FDA responsible for ensuring that adulterated drugs—those which have not been produced in conformity with good manufacturing practices—do not reach the marketplace. Good manufacturing practices include (1) maintaining formula and production records and procedures; (2) establishing test procedures to ensure that the drugs conform to appropriate standards of identity, strength, quality, and purity; and (3) keeping distribution records to speed the recall process.

The law requires each domestic drug producer to register annually with FDA, list all the drug products it produces, and be inspected at least biennially. FDA's inspections determine whether sound methods, facilities, and controls are used in all phases of drug manufacture and distribution. These inspections cover equipment, finished and unfinished material, containers, manufacturing records, and laboratory controls.

GAO previously reported² on several factors which hinder FDA from getting drug producers to comply with good

manufacturing practices.

Reporting Drug Reactions

One way FDA can determine if drug products pose health risks is to monitor adverse reactions associated with their use. Adverse reactions are mostly reported by drug manufacturers, physicians, and hospitals. When FDA receives these reports, medical evaluators analyze them and determine whether (1) a specific drug might have caused the reaction, (2) the reaction is serious, and (3) the reaction is included in the drug's approved labeling. FDA continues to disseminate information to the medical community on new, serious, or unexpected drug reactions.

GAO's 1982 look at FDA's adverse reaction reporting system indicated that the system had improved since 1974.³ However, many reports were not getting to the division maintaining the system, and many others required a long time to enter the system. Hospital and physician reporting occurred infrequently. Physicians in private practice, for example, were reporting to FDA relatively few adverse drug reactions. In 1980, the estimated 429,000 practicing physicians in the United States filled about 1.4 billion new or refill prescriptions. Yet, these physicians reported to FDA only 749 adverse drug reactions that year. In addition, private hospitals reported only 73 adverse drug reactions in 1980, down from 6,380 reported in 1970. Federal hospitals reported 89 cases, down from 1,176 reported a decade earlier.

Probably the major reason for the poor reporting is that many physicians fear the medical/legal ramifications of submitting adverse reactions to FDA. In addition, some physicians who discover a rare reaction might choose to publish it in a medical journal before notifying FDA. Recent FDA initiatives are designed to improve reporting.

¹"Speeding Up the Drug Review Process: Results Encouraging But Progress Slow" (HRD-82-16, Nov. 23, 1981), and "FDA Drug Approval—A Lengthy Process That Delays the Availability of Important New Drugs" (HRD-80-64, May 28, 1980).

²"Problems in Obtaining and Enforcing Compliance With Good Manufacturing Practices for Drugs" (B-164031(2), Mar. 29, 1973).

³"FDA Can Further Improve Its Adverse Drug Reaction Reporting System" (HRD-82-37, Mar. 8, 1982).



Ronald L. King

The Saigon Office: Closed, But Not Forgotten

Mr. King is an evaluator with the General Government Division (GGD). He joined the San Francisco Regional Office in 1966. After an initial 3-month temporary assignment in Vietnam in 1967, he returned to serve in the Saigon Office from 1969 through 1972. Following a stint in the Bangkok Office, King returned to Vietnam in 1974. His audit team was in Saigon when the North Vietnamese launched their final offensive leading to the fall of the South Vietnamese government in April 1975. Since coming to Washington in August 1975, he has served with the Logistics and Communications Division (LCD), Procurement, Logistics and Readiness Division (PLRD), and GGD. Mr. King has served as coordinator for the public works auditing seminar in the International Auditor Fellowship Program. He is a CPA in California and has a B.S. in accounting from Golden Gate University in San Francisco.

Ten years ago an era in GAO history quietly came to a close. On December 31, 1973, GAO closed its tiny outpost in the Vietnam war zone, the Saigon Office. For a little over 7 years, the Saigon Office served as GAO's eyes and ears in Vietnam. During its relatively brief existence, the office produced a large number of reports on a wide variety of subjects, and earned praise for its work from the top levels of government, including the Congress and the President. Its accomplishments are measured in hundreds of millions of dollars in savings and recovered cash.

A suboffice of the International Division's Far East Branch, the Saigon Office was opened in August 1966, when GAO decided to increase its war coverage with an on-site presence in South Vietnam. The Congress was deeply concerned about inadequate controls and the lack of audit coverage over the huge expenditures associated with the American construction and supply build-up in South Vietnam. Five federal agencies and departments were operating programs in Vietnam that cost the American taxpayer billions of dollars, yet there was very little audit coverage

by GAO or anyone else.

A total of 53 professional and 7 administrative staff, all volunteers, served tours with the Saigon Office. Many others served there on short, temporary assignments. Then, as now, most employees in GAO looked at the Saigon Office as only part of the ugly war Americans have preferred to forget. However, for those who were there, the mere mention of Saigon or Vietnam often brings to mind fond memories of those Southeast Asian experiences. The following were some of the things I remember about the city of Saigon, the routine of the Saigon Office during my 4-year stay, and Vietnam and its people.

The Pearl of the Orient

Saigon was an intriguing city, even aside from the complexities of internal politics in South Vietnam. It was a city of sharp contrasts and contradictions which fascinated and baffled even the most experienced traveler. Known as the "Pearl of the Orient," Saigon had a certain charm, glamour, and poise all its own. It also had a quaint capacity to make people feel at home, once they were there. In four years in Saigon, I never felt afraid while walking its streets, even late at night.

Now called "Ho Chi Minh City," Saigon was the capital of and the largest city in South Vietnam. As Asian cities go, it was young, dating back only 200 years. Located 40 winding miles up the Saigon River from the sea, it was a vast, sprawling city of tree-lined boulevards, parks, and French colonial-style residences. It also had its slums, rusted tin shacks inhabited by the many war refugees who had crowded into the city. Built for many fewer people, Saigon had a population of over 2 million that was constantly growing as more and more people moved into it from the rural areas and upcountry cities.

Two Cities in One

Actually two cities in one, Saigon was made up of Saigon proper and Cholon, the Chinese quarter. Really a city within a city, Saigon-Cholon was a busy and booming place despite the war and internal unrest. It appeared to be a place of prosperity and plenty. The downtown districts were beehives of trade and industry, with shops and stores displaying wide varieties of goods. The innumerable hotels, bars, and restaurants were always crowded. Still, there were telltale signs that things were not what they appeared. Lack of maintenance was beginning to show on streets, buildings, and equipment. And the trees lining the boulevards were dying from the exhaust fumes of the vehicles which clogged the city streets.

Saigon was a city of bicycles, scooters, motorcycles, trishas (similar to a Chinese ricksha, except that it is pushed by a driver on a tricycle), cyclos (a three-wheeled, motor-driven "cab" that resembled a motorcycle pushing an armchair), small Lambretta motor-scooter taxis (a three-wheeled scooter with a covered flatbed behind the driver), and battered, small, blue and yellow Renault taxis. Horns tooting and bells ringing, they rushed around helter-skelter.

Saigon taxis could have won any contest in rash driving. Taxi drivers seemed to delight in playing "chicken" with any truck 2½ tons or larger heading their direction, especially at intersections. The thing that really made me nervous riding a taxi after dark was the habit the Vietnamese had of driving with their lights out. They claimed they could see better that way. Fender benders were frequent, evidenced by the condition of most of the taxis in town, some literally held together with metal coat hangers and pieces of scrap wire.

Crowded Streets from Dawn to Night

The streets of Saigon were fantastically crowded from early morning until late at night with pedestrians, vehicle traffic, and oxen or pony-pulled carts. It often seemed as if the whole population of the city was on the move at the same time—men, women, and children of all ages, in families and singly. One often wondered where all the people were going.

One of the most interesting places to visit in Saigon was the Central Market. A trip to the marketplace was an essential part of a Vietnamese day since refrigerators and freezers were not common household items. At dawn the Saigon Central Market would begin to fill. Sellers set up their little tents, wagons, and stalls. Fishermen brought in their catches, alive and wiggling. Farmers brought their goods. Vegetables, fruit, hogs, chickens, and ducks were everywhere, as was the staple of the land, rice. The odor of the Vietnamese foods being cooked with fish sauce (nuoc mem) could be smelled for blocks. The market trade overflowed onto the sidewalks, where vendors also displayed all sorts of consumer goods, curios, and toys. To some extent, the streets of Saigon looked a lot like the area of downtown Washington, D.C., around 17th and K Streets NW, with its street vendors.

By 9:30 a.m. there seemed to be nothing but mass confusion at the market, with buyers and sellers carrying on verbal battles trying to get the best deal. Old men were "hawking" red, blue, and green bowls and pans. There were leather goods, knives, figurines, lacquerware, and bolts of cloth material of all types on sale. One-woman restaurants would be dishing out soup, chicken, shrimp, squid, and rice. Shoppers were everywhere, some buying, some not. Often in my free time, I spent hours wandering through the Central Market.

Practically every street in Saigon was named for a famous person from Vietnam's colorful history. Those of us who lived in Saigon were quite familiar with many of these streets, such as Tran Hung Dao, Le Loi, Vo Tanh, Le Van Duyet, Phan Thanh Gian, and Hai Ba Trung streets. While France controlled the country, many streets were named after Frenchmen, but only two streets, Pasteur and Alexander-De Rhodes, had retained their French names.

Nguyen Hue, Saigon's flower street,

was fun to walk down at any time, but most especially during Tet, the Vietnamese New Year's celebration. Then it was really in its glory. The whole street would be closed off, and flower vendors would take over the street completely, selling the plants, shrubs, and flowers that are a very important feature of every Vietnamese home during the Tet holiday season. Tet was a very important holiday for the Vietnamese. In Saigon it was a time of joy and happiness. However, to the American GI in Vietnam, it was a period of tension, alerts, and concern because the Viet Cong and North Vietnamese often launched their spring offensives during Tet. Those GAO staff members who were in Saigon during the Tet Offensive of 1968 will probably long remember the fighting in the streets of Saigon, especially in the Cholon district.

The Office

Our office was located near Gia Dinh on the outskirts of Saigon at 124B Truong Minh Giang, not far from Tan Son Nhut airport. (Tan Son Nhut was the busiest airport in the world during the war.) This was primarily a residential area with a few shops. The building was a villa in which we occupied half of the two-story white structure. When the office opened in 1966, the space served as both the office and residence for the staff. However, as the staff grew, everyone was assigned an apartment in one of the buildings leased by the embassy or the U.S. Agency for International Development (USAID) mission at various locations throughout the city. When I first arrived in Saigon on a permanent basis, I had an apartment just a few blocks up the street from the office in Gai Dinh at a large USAID apartment complex—323 Truong Minh Giang.

The Language

Only the manager's driver spoke anything near fluent English. Therefore, several evaluators took Vietnamese language training at night to learn enough to communicate with the drivers and maids. We mastered a few phrases like chao ong (hello—to a man), xin loi ba (excuse me—to a married woman), toi manh (I'm fine), cam on co (thank you—to an unmarried girl), re ben phai (go right), re ben trai (go left), lai day (come here), and the one I seemed to use the most, toi khong noi tieng Viet (I cannot speak Vietnamese).

Vietnamese is a monosyllabic lan-

guage. Each syllable expresses a distinct idea and, therefore, is a word in itself. Often two or more syllables are joined to form new words, such as Sai-gon. The language is a very complex and difficult one to learn. It is a tonal language, meaning that the tone or level of your voice changes the meaning of a word. For example, the word "ma" has many different meanings depending on how it is said and the context in which it is used. It can mean ghost, to rub, mother, cheek, but, that, which, clever, tomb, house, appearance, or rice seedling. You had to be very careful how you pronounced your words, or it could be embarrassing. If you used the wrong tone when addressing an unmarried lady or young girl, you inadvertently could be calling her old. To further complicate matters, there is a considerable difference between the way Vietnamese is spoken by people from various parts of the country. I remember one of the staff members learning a few words in Vietnamese, only to find out he had learned the North Vietnamese dialect instead of one of the southern dialects.

Work and Life in Saigon

It would be an understatement to say that working in Saigon was different and that working conditions were not always the best. The electricity was frequently out, telephone service was terrible and sometimes did not exist, air conditioning was unreliable, and the weather was either hot and dry or hot and wet. On more than one occasion, a wooden crate served as my desk, and a Conex container (a large, metal shipping container) functioned as my office. In spite of the conditions in which we worked, nearly everyone enjoyed the overall experience and returned for a second tour in Saigon.

Although U.S. newspapers often reported attacks on Saigon, those who were there rarely knew these attacks had taken place. Often the reports were grossly exaggerated. I remember one "big" attack on the city which turned out to be three small, hand-held rockets fired from across the Saigon River. Two rockets fell harmlessly into the river and the third landed in the parking lot of a gas station without damaging anything.

There were some anxious moments, though. While working at the office one day, I noticed a lot of commotion outside on the street in front of the office. It turned out to be the U.S. Army EOD (Explosive Ordnance Demolition) team blocking off our villa. A suspected bomb had been reported at the residence which occupied the other half of

our villa, but no one had notified us to evacuate the building. As it turned out, there was no bomb. Someone had left some laundry at the front door while the maid was at the market. When she returned and found the package, she called the bomb squad, the appropriate course of action.

Another anxious moment occurred during a dinner party at one of the Chinese restaurants in Cholon one Saturday evening. While several of us were waiting in front of the restaurant, we heard a tremendous explosion. The military police quickly closed off the street, and businesses closed their doors. We did not have anywhere we could go, so we waited behind a car until it was safe to come out. We learned from the military police that two young Vietnamese boys, ages 5 and 7, had pushed a cart loaded with explosives up to the entrance to the Hong Kong bachelor officer's quarters, where it detonated, killing one of the boys and the American security guard.

The work of the Saigon Office during the time I was there was split between military and economic assistance. Some staff members worked almost exclusively on USAID work, while others did only military work. Much of our work was congressionally directed. We had more than we could ever do, so we were very selective. We often joked that if the potential accomplishment was less than a million-dollar savings, we could not afford to spend the time to do the job. Our work was also sometimes restricted by security. I remember one time when people back here in Washington could not understand why we had not handled a 6-month-old congressional request concerning minor military construction at Phu Loi. They felt that since Phu Loi was just a short distance outside Saigon, we should have been able to drive out there and do the job promptly. What they failed to realize was that the Viet Cong then controlled most of the road between Saigon and Phu Loi. As soon as the road was secure, we made the trip and wrote our report.

While very few were willing to go to Vietnam, those who did gained valuable experience not often received in other offices. Because of the small size of the Saigon staff, middle-grade personnel handled assignments normally handled by those in higher grades. As a GS-12 with less than 2 months in grade, for example, I was called upon in 1969 to be the audit manager for the prototype review of U.S. troop withdrawals. I had a staff of 20 auditors from Saigon, Manila, Honolulu, and Washington, and a

budget of 5,000 staff days with a tight reporting deadline. The work was completed within the deadline, just under budget (4,999 staff days), and the job was used as a model for several follow-up reviews. Other staff members had similar experiences. Our normal workweek was 48 hours, a 9-hour day during the week plus 3 hours on Saturday morning. The Vietnamese observed a 2-hour lunch break, but we generally took only an hour.

The Country

We did not spend all of our time in Saigon while on the job. Many assignments took us to locations throughout the country, giving us an opportunity to see the diverse character of Vietnam. My assignments took me from one end of South Vietnam to the other; from Chu Lai (near the demilitarized zone separating North and South Vietnam) in the north to Nam Can, a Vietnamese naval base at the southern tip of Vietnam (and accessible only by air or sea). I spent time in such exotically named places as Quang Tri, Danang, Hue, and Pleiku. We traveled by a variety of modes, including car, van, truck, jeep, helicopter, airplane, boat, and by foot, depending on where and when we were going.

The Weather

South Vietnam has a monsoon climate with just two seasons, wet and dry. The dry season lasts from November through April, and the rainy season, from May through October. Rainfall is heavy, averaging about 59 inches annually. Although Vietnam is a small country, rainfall varies significantly within its borders, from about 110 inches a year in the Hue to about 3 inches in Cap Padaran.

The air of Saigon was unmistakably tropical, yet the weather was not wholly uncomfortable, with temperatures averaging between 77 and 86 degrees fahrenheit the year round. During April, the hottest month, the daily temperatures were in the 90's. It cooled off some at night. During the rainy season sudden showers would alternate with sunshine; rarely did it rain all day. The rains generally came in heavy downpours for short periods, flooding the streets. However, the water quickly ran off and evaporated as soon as the sunshine returned. Right after a rain, clouds of steam rose from the streets like one huge steam bath. Raincoats were useless due to the heat and humidity. The best season was December through February, when it was pleasantly cool and dry.

The Vietnamese found some of

these winter mornings too cool for them. They could be seen wearing sweaters to keep warm, while the westerners wore short-sleeved shirts and blouses. Many Vietnamese clerks also wore sweaters at work all the time because of the air conditioning installed in most American-operated buildings. Most of them were not accustomed to cool weather, as the lowest temperature ever recorded in Saigon was 57°F. However, other parts of the country, especially in the central highlands, got much cooler. Dalat, for example, dipped down into the 40's regularly in the winter.

The Children

The Vietnamese I remember most are the little children. Most of the small children were always smiling and seemed to be healthy and happy. They loved to follow Americans and chant such English phrases as "You give me candy, GI?" (everyone was a GI to them) and "You number one." If you did not give one of the professional child beggars a coin, they would shout "You number ten," or "Cheap Charlie." (In Vietnam, 1 was good, 10 was bad.) There were many professional beggars in Saigon, many of them children. Frequently, they would come up to you and touch you with their hands and run away giggling.

It Was Not All Bombs and Bullets

Life in Saigon was not as bad as many people seem to think. Vietnam was a war zone, but combat was not in progress everywhere in the country at the same time. In fact, except for Tet of 1968 and the final days in 1975, Saigon remained relatively untouched by the war. In spite of the war, life in Vietnam went on, and for some it was not all that bad. Most articles on Vietnam emphasize the military side. In contrast, there was a civilian experience, which was quite different in many ways.

I would not trade my four years with the Saigon Office for anything. While I probably would have advanced more quickly had I not gone, the job experience and the new perspective on life I gained there have been invaluable. I went overseas a bachelor with 66 pounds of luggage and returned nearly 7 years later with 14,000 pounds of goods and furniture, a beautiful Lao wife and adopted daughter, and have subsequently adopted my wife's two younger brothers also. I will never regret volunteering to go to Vietnam, even though what was originally a 12-month commitment ended up lasting 7 years.

A Review Article Profile: Rocky Mountain High

Tom Pastore's *GAO Review* article entitled "What 'Type' Auditor Are You?" was a "Rocky Mountain High" for him in more ways one. First, the article (published in the Winter 1983 issue) was conceived and created in Denver, Colorado (at 5,000 feet above sea level), and at 33,000 feet while Tom was flying between Denver and Washington, D.C., on several GAO assignments. Second, it won him an award in 1983 for the best *Review* article by an author 35 years of age or older. And last, but certainly not least, it was fun to write.

The *GAO Review* editorial staff interviewed Tom to develop the following profile on him and his award-winning article, which dealt with the advantages of auditors using electronic work stations and typewriters in their work. And if you've been wondering, as we have, how "Know Change" and his twin brother "No Change" have been doing lately, Tom has been considering a sequel article, which may appear in a future issue.

GAO Review: Tom, congratulations on receiving one of the *GAO Review*'s "Best Article" awards last year. Did you ever think your article would win an award?

Pastore: No, I didn't. Even though I tried to make it creative, I realized that it was very different from your usual technically oriented articles. I guess the "uniqueness" worked in my favor rather than against me. I was pleasantly surprised by the award.

GAO Review: Tell us how you developed the concept and story line.

Pastore: My initial goal was simply to write an article for the *Review*. Selecting a topic was probably the most difficult task because I wanted a subject that was appropriate, timely, interesting, and would provide an opportunity for creative expression. Staff

productivity has been of interest to me for many years, ever since I worked on a Productivity Task Force in New York City under the Lindsay mayoral administration, in about 1969. Improving or even measuring the productivity of professionals, such as auditors and evaluators, is not usually done. Nevertheless, as a supervisor in GAO I've been astonished by the great number of our professional staff who laboriously write in longhand their workpapers, summaries, and reports. Since other professionals, including reporters and authors, often type their written products, I wanted to highlight some of the benefits of auditors-evaluators learning typing skills. Hence, I thought the topic was appropriate for GAO. Also, because of the then-imminent introduction of electronic work stations in GAO, it was also timely. The topic, I reasoned, could be made interesting through a creative format and presentation.

GAO Review: Do you follow the advice in your article and type your work? What "type" auditor are you?

Pastore: Oh, I can move along at a reasonably good clip. I've been typing for many years, ever since high school when I taught myself. My dad, a part-time author, provided incentive by paying my brothers and me to retype his drafts. I eventually took a typing course in high school to learn the fundamentals and then succeeded in scoring 100 on the final exam. Most of my written products in college and graduate school were typed and, for a little extra income, I typed papers for other students. The typewriter has continued to be a useful tool for me in GAO too, although several years ago I actually received a few harassing phone calls while composing at a typewriter. But isn't it ironic that, despite my typing skills, I actually wrote in longhand my

article about why auditors should type? The airlines might give you enough to eat and drink, and they sometimes show you movies, but they just don't provide typewriters!

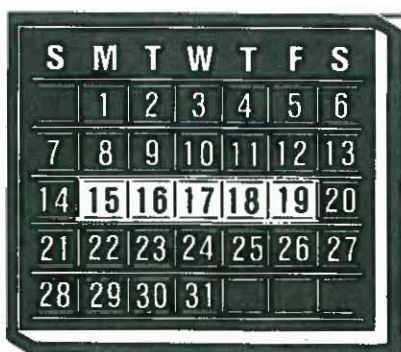
GAO Review: What were some of the stages your article went through?

Pastore: It went through one complete rewrite and several refinements. The first draft was pretty straightforward and dry, but it contained the same information as my final version did. It just didn't have any pizzazz! I discussed it with Denver's writer-editors, Pam Tumler and Joanne Cook, and we thought a "play" approach involving dialogue might work better. My mental auditions for appropriate "characters" ended the following week, again while I was en route to Washington. I wanted to emphasize "change" and wanted a character who would "know" the benefits of change. Hence, "Know Change." The other character had to be just the opposite, hence auditor "No Change." Using auditors Know Change and No Change, I was able to write my "play" with conversation and even an occasional "play on words" for some creative fun. I intentionally used phrases, such as "Yes, 'No,'..." and "'Know' knows..." Finally, by making them twins (as I am one), I was able to imply that both had generally the same innate abilities, but that perhaps Know's typing skills played a part in his advancement. A difficult aspect of writing the article was using conversational dialogue, because I haven't had much experience writing like that.

GAO Review: Your approach and format were indeed quite clever. What types of feedback did you receive from GAO colleagues or readers outside of GAO?

Pastore: I received numerous compliments from GAO staff in Denver and around the country who thought my article was very readable, entertaining, and carried a worthwhile message. Also, several GAO staff in Denver have recently begun drafting articles to submit for publication in the *Review*, so maybe I recruited some potential authors for you. Electronic work stations are also very popular in GAO; maybe I helped "promote" their use. An interesting sidelight is that at a recent Career Level Council meeting in Denver, we discussed the feasibility of GAO sponsoring a typing course for auditors so they could better utilize our electronic work station capability. I got a kick out of reminding them that "Know Change" had recommended the same thing! Also, one non-GAO inquiry

See Profile, pg. 37



A Week's Worth



Margarita A. Vallazza

Ms. Vallazza is the writer/editor for the Kansas City Regional Office. Before coming to Kansas City in March 1980, she was one of the writer/editors in the Procurement Systems Acquisitions Division (now a part of the National Security and International Affairs Division) in GAO headquarters. She joined GAO in January 1977 after receiving a B.A. from the University of Texas at El Paso in 1976, with coursework in English, sociology, and anthropology. Ms. Vallazza donates her services as a writer/editor to the Kansas City Hispanic community and has had short articles and poems published in the local press.

Monday

This morning begins the second week my little baby girl, Renata, has gone to a babysitter. I have a new way to drive to work and I'm trying to get comfortable with the different flow of traffic.

When I get to my office, I find a draft report on procurement in my mailbox. I enter it in the log that I keep to track my work activities and what I do to the job: line edit, review, conference, writing, etc. I go get a cup of coffee from the lunchroom.

When I return to my office and start on the draft, I find an "Attaboy" on my desk. Attaboys are the Accomplishment Reports, memos from headquar-

ters staff, etc., that I use in the *KCROSS Examiner* (the Kansas City Regional Office's newsletter) as a means of giving recognition to staff members who participated on a job. I have to confirm the names of the staff members, so memo in hand, I go looking for the senior staff member named to ask who else worked on the job with him. I am intercepted by Everett Curry who wants to discuss the substantive edit and review I did on his draft letter report. I invite him into my office so that we can have a private conference.

Before too long, we are interrupted by Jerry Pennington to whom I had recently sent a request for a sample of his writing. As part of KCRO's ongoing Personalized Writing Program, I critique every staff member's original writing to check for problems or weak or strong points. If there are weak points, we work together to try to correct them. If, in my opinion, it's a good sample, I let them know that, too. This is confidential between the staff member and me. Management does not get to see that person's sample nor do I offer management anything other than statistics if I am requested to. I tell Jerry I'll see him as soon as I am finished working with Everett. I resume my conference with Everett, but out of the corner of my eye, I see Mike Higgins, a senior staff member, who says he needs to talk to me later.

Everett and I finish our conference and I again take up the memo but detour to Mike's office to see what he'd wanted of me. He asked me if I could put together a booklet for Art Zago's retirement dinner from the sample he had. I look at his sample, think a bit, and say I'll show him what I can come up with later.

I track down the senior staff member named on the attaboy memo I'm carrying and confirm the names of the other staff members who had worked on the job. Immediately after this, I speak to Arnett Burrow (the Assistant Regional Manager who is my immediate supervisor) and ask him if I need to include the ARMs as staff members who had worked on the job. His reply was "No, not unless they are specifically mentioned in the memo." Before I return to the draft on procurement, I experiment with the sample Mike Higgins had given me. I made a copy to work on and put it on my light table where, using my X-acto knife and tape, I create a "dummy." It looks pretty good and give it to

Mike. After that, I work steadily on the draft until lunchtime.

After lunch, I continue working on the procurement draft. It is very technical subject matter and I have to re-read some paragraphs several times to make sure that I understand what the author is trying to tell his audience.

Mike comes in to tell me he took the booklet "dummy" to have it reproduced. I return to the draft. As I ponder a particularly complex explanation of a supply level, I get a call from Don McDade, one of our senior staff members from the St. Louis office. He asks me a question on a summary that has classified appendices. I don't have the answer right there at my fingertips and tell him I'll call him back. I walk over to my file cabinet for a manual on security and check it for the information that Don had asked me about. To be sure I am giving Don the correct information, I feel it would be best for me to double check with a writer/editor who works frequently with classified information. I put in a call to my friend, Luvenia Lanford, who works in NSIAD. She isn't in, so I leave a message for her to return my call in the morning. In the meantime, I feel I can't wait until morning to find that information. So I place a call to Nancy Fulton in OSS. There's no answer. I call several people at headquarters and all are out. Then I look at the clock and remember that Washington is an hour ahead of Kansas. I call Don McDade back and he tells me I can call him back in the morning after I've talked to Luvenia. I continue working on the procurement draft for about another half hour before calling it a day.

Tuesday

This morning I finish the procurement draft and, while I am getting it ready to mail back to the evaluator in Oklahoma City, Luvenia returns my call. Classifieds are serious business, so I ask her if it would be all right for Don to call her and confirm what she has told me. She laughs and says, "Sure." Luvenia works exclusively with classified reports and I would rather Don get it "straight from the horse's mouth." I call Don and give him the information, but tell him to call Luvenia to be sure.

While waiting for Don McDade to call me back, Audrey Pickert, Mr. Hanna's secretary, brings me a thick bun-

dle. She says it is the transcript of the latest Mid-American Intergovernmental Audit Forum meeting. Mr. Hanna, KCRO's Regional Manager, is also the chairman of this forum, and Susanne Valdez in St. Louis, who is the executive director, gets them printed for distribution. I usually edit the transcripts of the meetings. Don calls me back to tell me that everything is in order and thanks me for the help.

Before I start on the transcript, I look it over and decide to call Susanne to ask her to send me a copy of the latest, printed transcript so that I can check myself on consistency.

I make my call to Susanne who said she would put the last two printed transcripts in the mail for me that very day. I just start to work on it when I get a rush job on a draft letter report written by Everett Curry and Art Zago. It isn't very long and this time they just want me to line edit it because I will have a further opportunity to work on it.

Later, I've got to see Gary Billen, KCRO's Training Coordinator and Personnel Development Coordinator. Starting with fiscal year 1984 reports, Mr. Hanna wants us to display issued reports that Kansas City staff have participated in. We are to do so in a special display case set up in Kansas City's reception area. Mr. Hanna had seen one set up like that in Cincinnati.

I decide to call Carole L. Roby, Administrative Officer, in the Cincinnati Regional Office regarding how her office monitors the jobs (blue cover and letter reports) that Cincinnati people have participated in. She tells me that the staff monitors their jobs pretty well by constantly checking with their contacts in headquarters who let them know when the reports are issued.

Gary Billen, Lillian Donaldson (KCRO's Computer Assistant), and I are working together to come up with a computerized document that will have the appropriate data automatically put into the system. It surely will save hours of culling through documents to pull all this information together. I return to the transcript.

I take a break in our staff lunchroom about 9:30 a.m. Sharon Fritz pops in to say everybody is to go into the Large Conference Room because Mr. Hanna has called a meeting to announce who has received Special Commendation Awards (Jim Hoffman and Marshall Picow) and to present Darrell Massier with his Special Award plaque. Darrell received it for rebuilding the technical assistance group in the region. After the meeting, I resume my break, when Sharon comes in to give me a telephone message from Lenny Hill (one of

our St. Louis evaluators). The message reads: "IMPORTANT!"

I return to my office, call Lenny, and get a busy signal. Resuming the edit of the transcript, I try Lenny again about 5 minutes later and get through to him. He asks me how my work schedule looks for 2 weeks from today. He explains that he has a draft being written and wants me to edit it; however, it won't be ready until about 1½ weeks from now. He will have it Express Mailed to me when it is finished; then he wants me to hand-deliver it to him in Nashville, where he will be meeting with the principals. Lenny has already cleared my participation in this venture with Mr. Hanna.

While we have been talking, Art Zago appears with a draft letter report I'd worked on with him and Everett Curry. We go to my office to discuss some of the changes I'd made on it.

After discussing some of the changes, he declares himself satisfied with the job I'd done. I'd see Mary Jane Meek, KCRO's travel clerk, come to the door in the meantime. When Art leaves, I go to Mary Jane's desk to see about travel arrangements for the Nashville trip.

Mary Jane, as always, has come through with flying colors. She's gotten my plane reservations, but tells me that my advance might not come until after I return from Nashville. By this time, it is lunchtime and I have had a full morning! This starts me thinking about what babysitting arrangements to make for my trip.

As if we had communicated by mental telepathy, Mario calls on the phone. Preliminary greetings over, I break the news of my forthcoming trip. I tell him we need to discuss babysitting alternatives that evening at home. I'm looking forward to the trip, because I have never been to Nashville.

I'm able to work on the transcript without further interruptions until about 2:30 p.m., when Don Ficklin comes to ask me a question about the format of the address on a transmittal letter he has. I copy it and tell him that I'll get back to him shortly. I look in several sourcebooks which give guidelines on letter formats, but none have the precise information that I seek. Finally, I look in GAO's telephone directory, because it contains a section which shows mail addresses of various GAO offices and sites. However, I also discover that some of the formats are inconsistent.

I take the directory and the copy of the letter over to Don and we discuss what his needs are. He had written the letter in a specific format and that's what he wants. I recommend that Don return the letter for retyping and to

specify again exactly how he wants the format of the address. There are times when the "customer" wants something that may be contrary to GAO's format and style. What I do in a case like this is bargain and negotiate. However, if the "customer" is firm about what his/her wants are, I do not argue but make it clear that he/she must be responsible if someone else questions what appears to be an inconsistency or an error. By now, it's time to go home and am I glad... it's been a really busy day!

Wednesday

Last night, my husband and I had decided that it would be best if we took the baby over to his Aunt Anita in Kansas City, Missouri, and have her babysit Renata beginning next week. When I drop Renata off this morning, I tell the babysitter that I will be traveling out of town soon and I'll need to talk to her in the afternoon.

When I get to work, I go to my office to take my coat off and then I walk to the lunchroom to put my lunch in the refrigerator. I read the various notices posted on the bulletin boards in the room. One notice catches my attention—Janet Chapman, Federal Women's Program Manager, has written a memo inviting people to see a film, "The Secretary as a Professional," this Thursday afternoon. I would like to attend and mentally make a note to do so.

Seated at my desk, I begin editing the transcript again. While I'm doing this, Mr. Burrow comes in to tell me that he has scheduled a report review conference for tomorrow and that he would like me to attend and add my input. I mark the conference down in my calendar and in my logbook.

After a brief coffee break, I return to my office and start editing a draft letter report to one of the members of the House of Representatives. Part of editing entails checking to make sure what kind of letter report it is—Group I, Group II, or Group III—whether it's going to be bound or unbound, etc., because different reports have different formats to follow. Also, it's easier for me to do my job if I know as much as possible about the report.

I spend the rest of the day working exclusively on this job, because the customer needs it as soon as possible. I am able to finish this draft just before it's time to go home.

At home, I greet my older daughters, Kerin and Sandy, and ask them to look

See *Week's Worth*, pg. 37



Judith Hatter

Praise Indeed!

Senator Alfonse M. D'Amato, Chairman, Subcommittee on the Legislative Branch, Senate Appropriations Committee, made the following observation when the Comptroller General appeared before the subcommittee in connection with our 1984 appropriation request:

For the record let me say that in the dealings that we have had with GAO, your people have been absolutely outstanding. Thank God we have GAO. I don't know how other people feel about it, but I think it is just an incredibly important function. It keeps honest people honest. I just hate to think what would be taking place without that watchful eye that is not only there to criticize but to save.¹

National Endowment for Democracy

Title V of Public Law 98-164, November 22, 1983, "National Endowment for Democracy Act," establishes a private, nonprofit corporation known as the National Endowment for Democracy. The law provides for auditing and reporting to the Congress by the Comptroller General of the financial transactions of the endowment for each fiscal year.

Revenue Sharing

Public Law 98-185, November 30, 1983, Local Government Fiscal Assistance Amendments of 1983, amends title 31 of the U.S. Code with respect to auditing requirements. One of the new requirements is that audits must be conducted in accordance with generally accepted government auditing standards issued by the Comptroller General.

Legislative Developments



The Comptroller General is also required to assist the Secretary of the Treasury in developing a plan for completion of a comprehensive study of federal, state, and local fiscal relationships mandated by the law.

DOD Year-End Procurement Practices

Public Law 98-191, December 1, 1983, Office of Federal Procurement Policy Act Amendments of 1983, requires the Comptroller General to provide to the Office of Federal Procurement Policy information on procurement actions of the Department of Defense (DOD) and the regulations and administrative and management guidelines applicable to such action. This information should be used in connection with a study and report to the Congress on DOD year-end procurement practices.

Citizens Incentive Awards Act

On November 17, 1983, Senator Jim Sasser of Tennessee introduced S. 2119, Citizen Incentive Awards Act of 1983, "****to provide awards to those citizens whose disclosure of waste, fraud and mismanagement in the Fed-

eral Government results in substantial savings, and to expand the potential for checking such waste, fraud and mismanagement of the General Accounting Office's nationwide, toll free fraud hotline."****²

Miller Act Payment Bonds

The Senate Committee Judiciary ordered reported, without amendment, H.R. 596, to transfer responsibility for furnishing certified copies of the Miller Act payment bonds from the Comptroller General to the officer who awarded the contract for which the bond was given (S. Rept. No. 98-344, Dec. 14, 1983).

98th Congress, First Session

The first session of the 98th Congress ended on November 18, 1983. The members introduced 8,437 bills and resolutions, enacted into law 215 public laws, and produced 27,889 pages of proceedings in the *Congressional Record*.

¹Legislative Branch Appropriations for Fiscal Year 1984: Hearings on H.R. 3135 Before a Subcommittee of the Senate Committee on Appropriations. 98th Cong., 1st sess., p. 90.

²Cong. Rec., Vol. 129 (Nov. 17, 1983), p. S16622.



Diane E. Grant

Since the *Staff Bulletin* stopped appearing in March 1960 and the *GAO Review* was not published until the winter of 1966, and the following item was taken from a 1964 issue of the *Watchdog*.

- Brian P. Crowley, associate director senior level, Resources and Economic Development Division (RCED), received personal congratulations from Comptroller General Joseph Campbell for his achievement in receiving the highest grades in the May 1964 Virginia CPA Examination. He was also presented the Virginia Society of Certified Public Accountants' Gold Medal in recognition of this achievement.

- During the summer of 1974 you will find some new staff members included Harry Ostrow, National Security and International Affairs Division (NSIAD), from the Department of Health, Education, and Welfare; Herbert M. McLure, RCED, from Touche Ross & Co.; Ronald J. Maccaroni, General Government Division (GGD), from Russell & Holmes, Corp.; Austin J. Acocella, RCED, from Baruch College; Richard E. Jones, Accounting and Financial Management Division (AFMD), from Virginia State College; Billy C. Kester, NSIAD, from Bendix Corp.; and George A. Sousa, NSIAD, from the Department of the Air Force.

Other important events during that period:

- Frank C. Conahan, director, NSIAD, was designated director of the European Branch, International Division, effective August 15, 1974.

- Thomas P. McCormick, regional manager, San Francisco, was designated an assistant director in the Manpower and Welfare Division (now the Human Resources Division (HRD)).

- Ellen S. Habenicht, HRD, became the first Upward Mobility participant to complete training in the preprofessional program and join the profes-



sional ranks. Ms. Habenicht entered the program in November 1973 as a GS-6 management analyst trainee. She received on-the-job training in GGD, HRD, and the former Federal Personnel and Compensation Division. Ms. Habenicht is currently an evaluator at

the Social Security Administration audit site, HRD.

- William D. Martin, Jr., became the first director of the Office of Staff Development, effective November 4, 1974.

GAO was among many organizations which observed the Truman Centennial on May 8, 1984. Pictured is a part of the exhibit displayed in the GAO headquarters building. Former President Truman played a substantial role in GAO's history. An article on Mr. Truman will appear in the Fall 1984 issue of the *GAO Review*.



Briefcase, cont'd from pg. 4

tain types of entities—universities and hospitals, for example—exist in the governmental and private sectors. Under the compromise agreement, GASB will establish financial reporting standards for the activities and transactions of state and local government units, and FASB will establish such standards for all other units. In the absence of a GASB standard for a particular activity or transaction, governmental entities will be expected to observe FASB standards.

As with FASB, the new GASB will be under the oversight of the Financial Accounting Foundation (FAF), whose membership will be expanded by three representatives from state and local governments. GASB will have a full-time chairman, a director of research, and a 20-member staff. The five board members will serve 5-year terms. GASB will be based in Stamford, Connecticut, together with the FASB, to encourage cooperation between the two standard-setting bodies. GASB should be operational by mid-1984, FAF officials state.

Comptroller General Bowsher has long supported the concept of a standard-setting body for governmental units. At an earlier stage in the deliberations leading to GASB's establishment, the Comptroller General remarked, "It is my hope that state and local governments will follow the same policy GAO intends to—that is, they will adopt as many of the GASB and FASB standards as possible. In this way, I think government accounting will become more useful and more understandable to the outside world." The standards will also be incorporated into GAO's federal accounting principles and standards to the extent they are applicable.

GAO will be one of 20 organizations represented on a new Government Accounting Standards Advisory Council (GASAC). Most of the groups which will have a seat on the council are concerned with the management and financing of state and local government operations. GASAC will assist in developing the GASB budget; review nominations of individuals selected to serve on GASB; and provide advice on projects, technical issues, priorities, and

policies. GAO presently has a seat on the Financial Accounting Standards Advisory Council, which performs similar functions on behalf of FASB.

For more information, contact Bruce Michelson, AFMD, (202) 275-5410.

Financial Reporting Pyramid in the Federal Government

One of the primary financial management goals of GAO is to have audited consolidated financial statements of the federal government within the next few years. To attain this objective, GAO has identified three basic levels of financial reporting in the federal government.

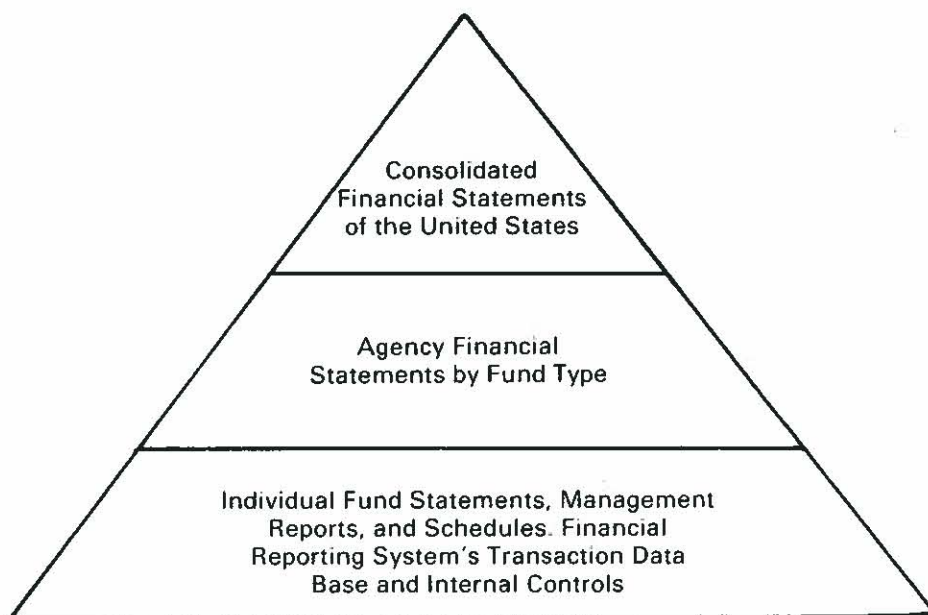
The first level is the consolidated financial statements of the United States, which are the basic financial statements prepared by the Department of the Treasury and present the financial position and operating results of the federal government on a consolidated basis. The current prototype financial statements¹ in our view represent the forerunner to the formal consolidated financial statements. The financial statements prepared by each agency and department provide the support for these consolidated statements.

Agency financial statements by fund

type represent the second financial reporting level in the federal government. These statements present the financial position and operating results for each fund type (for example, general, special, and revolving funds) and for the entity as a whole. They should be prepared from an accounting and budgeting system that is an integral part of its total financial management system—one that contains sufficient discipline, effective internal controls, and reliable data.

The final level consists of individual fund statements, management reports, and schedules. These documents support the data presented in an agency's financial statements. Their form and content are left to the discretion of agency management. Also included in the third level are an entity's financial reporting (including accounting and budgeting) system's transaction data base and internal controls. These systems aspects support all financial reporting at each level in the pyramid. The pyramid appears below.

¹Consolidated Financial Statements of the United States Government, Fiscal Year 1982/Prototype. Compiled by the Bureau of Government Financial Operations, Department of Treasury.



Location, cont'd from pg. 5

1985. For more information, contact Steve Kenealy, head of Personnel's Recruitment and Examination Branch, at (202) 275-6092.

Personnel Appeals Board Stresses Its Independence

The Personnel Appeals Board (PAB), a five-member panel created to serve

GAO employees with certain job-related grievances, celebrated its third anniversary on October 1, 1983. PAB's authority stems from the GAO Personnel Act of 1980, which permitted GAO to create a

See Location, pg. 33

Location, cont'd from pg. 32

personnel system separate and distinct from that in the executive branch. The act also created a separate appeals system embodied in the PAB and its General Counsel, who participates in some proceedings before the board. The board may hear appeals concerning any removal, suspension for more than 14 days, reduction in grade, reduction in pay, or furlough of 30 days or less; prohibited personnel practices; collective bargaining issues; unfair labor practices; equal employment opportunity allegations; and within-grade increase denials or reductions-in-force.

PAB has survived its "shakedown cruise" in fine shape. Its accomplishments include 27 appeals adjudicated, 2 significant cases upheld in court, and 2 oversight studies completed. In an attempt to clarify its role to GAO employees, the board has issued a pamphlet outlining its function, appeals process,

and jurisdiction; published a poster describing "whistleblower" protection and prohibited personnel practices; and held get-acquainted meetings in all of GAO's regions. Additional meetings were held in Los Angeles, San Francisco, Seattle, Dallas, and Denver last year and other follow-up visits are planned for 1984. Edward Gallas, the board's chairman from its inception until October 1, 1983, served his 3-year term and was replaced by Jerome Ross, an arbitrator from McLean, Virginia.

"The PAB is chartered to provide an impartial dispute resolution forum for the GAO personnel system," Ross said. "I believe that the board's present composition of five experienced labor arbitrators will enable it to effectively perform this role. I look forward to establishing sound working relationships with employee organizations and management representatives to continue to develop a fair system for resolving GAO employees' problems."

One of the board's lesser known responsibilities involves oversight of the equal employment opportunity program within GAO. PAB has acted on that responsibility by conducting oversight reviews of the agency's Personnel Office and of the agency itself. PAB screened the personnel policies, practices, and procedures within GAO's Personnel Office as they apply to equal employment opportunity. The board's agencywide review examined the status of such programs as affirmative action and federal equal opportunity recruitment and analyzed personnel policies and practices, such as discipline, awards, advancement, hiring, executive development, executive training, assignments to task forces, and congressional assignments to determine their impact on GAO's equal employment opportunity program.

For more information about the Personnel Appeals Board, call (202) 275-6137.

Manager's, cont'd from pg. 8

Carnes, William T. *Effective Meetings for Busy People*. New York: McGraw-Hill, 1980.

Doyle, M. and Straus, D. *How to Make Meetings Work*. Chicago: Playboy Press, 1976.

Fisher, A. B. *Small Group Decision Making: Communication and the Group Process*. New York: McGraw-Hill, 1974.

Hon, David. *Meetings That Matter: A Self-Teaching Guide*. New York: John Wiley & Sons, 1980.

O'Connell, Sandra E. *The Manager as Communicator*. San Francisco: Harper and Row, 1979.

Schindler-Rainman, E. and R. Lippitt. *Taking Your Meetings Out of the Doldrums*. LaJolla, CA: University Associates, 1977.

Articles

Dunsing, R. J. "You and I Have Simply Got To Stop Meeting This Way." *Supervisory Management* (Sept. 1976-Feb. 1977)—6 Part Series.

Gilsdorf, J. W., and M. H. Rader. "Bringing Out the Best in Committee Members." *Supervisory Management* (Nov. 1981), pp. 6-11.

Grove, Andrew S. "How (And Why) to Run A Meeting." *Fortune* (July 11, 1982), pp. 132-140.

Jay, Anthony. "How To Run A Meeting." *Harvard Business Review* (Mar.-Apr. 1976), pp. 43-57.

Kirkwood, William, and Janice Wilson. "Leadership Strategies For Successful Meetings." *Supervisory Management* (Oct. 1981), pp. 2-8.

Konczal, Edward F. "Making the Most of Meetings." *Supervisory Management* (Mar. 1982), pp. 2-5.

McDougle, Larry G. "Conducting A

Successful Meeting." *Personnel Journal* (Jan. 1981), pp. 49-50.

Moore, Larry G. "Increasing the Effectiveness of Your Staff Meeting." *The Internal Auditor* (Apr. 1981), pp. 39-41.

Prince, George M. "Creative Meetings Through Power Sharing." *Harvard Business Review* (July-Aug. 1972), pp. 47-54.

Prince, George. "How To Be a Better Meeting Chairman." *Harvard Business Review* (Jan.-Feb. 1969), pp. 98-108.

Raudsepp, Eugene. "How to Make the Most of Meetings." *Computer Decisions* (July 1982), pp. 167-172.

Tapes

Xerox Learning Systems. *Leading Meetings*. Stamford, CT: Xerox Corporation, 1982. (Available at OOH's Training Branch, room 6047).

Topics, cont'd from pg. 10

generic questions. The philosopher R. G. Collingwood went further, saying that "Every statement that anybody ever makes is made in answer to a question." Philosophical issues aside, there does seem to be practical value in presenting the results of an evaluation or an audit as a series of questions and answers. First, little doubt exists about what questions drove the inquiry. Perhaps just as important, the reader does not have to speculate about what questions were not addressed and why; if the questions are

not listed, they were outside the scope of the inquiry. If the questions have logical connections to one another, as they frequently do, then these same logical connections can usually be expected to provide a useful structure for the presentation. And finally, the question-and-answer format can give visibility to any situations in which the inquiry produced incomplete or qualified answers. In presenting results, it is often important to identify gaps in knowledge or to communicate a degree of uncertainty about the answers. The juxtaposition of question and answer may simplify such points.

Where To Look for More Information

Until recently, the question-and-answer mode of inquiry has not received much direct attention in the evaluation literature although it has always been present implicitly.

Some treatment of the topic can be found in the following sources.

Kerlinger, F.N. *Behavioral Research: A Conceptual Approach*. Holt, Rinehart & Winston, 1979.

See Topics, pg. 34

Topics, cont'd from pg. 33

True, J. A. *Finding Out: Conducting and Evaluating Social Research*. Wadsworth, 1983. These two texts stress the importance of framing good questions.

Program Evaluation and Methodology

Data, cont'd from p. 12

tivities. Thus, many of the controls and much of the evidence, even in automated systems, are manual. Unless written forms of evidence are eliminated, manual techniques can be used effectively to audit automated systems. An evaluator can transfer traditional audit knowledge to the automated environment.

Practical Experience

To show how an evaluator uses manual techniques in an automated environment, let me describe my own experience when I was assigned to review federal agency testing of business application software. At issue was whether software testing practices were adequate and effective. We focused on business application software because it represented more than 60 percent of the computer programs used, and it automated transactions that affect government financial resources and management information.

Our specific audit objectives were to determine if agencies (1) adequately planned the testing of their business application software, (2) effectively managed software testing, and (3) gave assurance that the testing provided adequate, accurate, and timely results.

To begin the review, we examined current literature and publications to obtain background on established software testing standards, guidance, and methods. Although we found few standards and procedures, our search did identify a plethora of automated testing tools and techniques.

As we began work at the first audit site, we anticipated a need for specialized ADP audit expertise to successfully complete our review. We decided, however, to examine the agency's testing process before requesting technical assistance. The agency did not have formal testing standards, procedures, or guidelines. Automated testing tools were not used. What had initially appeared as an audit involving highly sophisticated tools and techniques became a manual control and

Division. *Designing Evaluations*. U.S. General Accounting Office, forthcoming. Includes a discussion of descriptive, normative, and cause-and-effect questions plus designs for getting answers.

Dillon, J. T. "The Multidisciplinary Study of Questioning." *Journal of Educational Psychology*. pp. 74,

activities review.

Using common non-ADP techniques, we found that agencies

- did not allow adequate time for planning and testing of software,
- often relied upon developers and programmers to properly test their own software,
- rarely provided written guidance containing specific testing requirements and tools to be used, and
- did not collect and evaluate software problems to improve their testing process.

In addition, we found that agency management did not place appropriate emphasis on testing, considering the billions of dollars spent to develop and maintain computer programs and the operational reliance placed on them.

Evaluators Play Major Role

This audit showed that evaluators can play a major role in ADP audits. If processes are manually controlled and written evidence is available, generalist evaluators, with only a conceptual understanding of automated systems, can successfully identify control activities and assess their effectiveness. They can review and document the automated process, identify and locate data evidence, set audit objectives, and test and evaluate manual controls.

When evidence is automated, however, technical ADP expertise is required. Without a distinctive understanding of computer processes and the ability to use automated evidence media, an auditor cannot evaluate computer controls or the results produced, but must rely on technical assistance to complete these tasks. Until ADP skills are gained, a critical skill for generalist evaluators is to recognize the boundary of their technical expertise. The generalist evaluator's most critical career challenge will be to expand this boundary.

Bibliography

"Federal Agencies' Maintenance of Computer Programs: Expensive And

147-165, 1982. An overview of questioning as developed in a variety of disciplines.

Gale, S. "A Prolegomenon to an Interrogative Theory of Scientific Inquiry." In H. Hiz (Ed.), *Questions*. Reidel, 1978. An effort to provide a rigorous foundation for the question-answering mode of inquiry.

Undermanaged" (AFMD-81-25, Feb. 26, 1981).

"Improving Cobol Applications Can Recover Significant Computer Resources" (AFMD-82-4, Apr. 1, 1982).

Berman, Norman C. "The Modern EDP Environment's Impact on Internal Controls and Auditing." *The GAO Review*, Summer 1983, pp. 38-40.

"The Federal Information Processing Standards Program: Many Potential Benefits, Little Progress, And Many Problems" (FGMSD-78-23, Apr. 19, 1978).

"Contracting For Computer Software Development—Serious Problems Require Management Attention To Avoid Wasting Additional Millions" (FGMSD-80-4, Nov. 9, 1979).

"Conversion: A Costly, Disrupting Process That Must Be Considered When Buying Computers" (FGMSD-80-35, June 3, 1980).

"Wider Use Of Better Computer Software Technology Can Improve Management Control And Reduce Costs" (FGMSD-80-38, Apr. 29, 1980).

"Federal Agencies Could Save Time And Money With Better Computer Software Alternatives" (GAO/AFMD-83-29, May 20, 1983).

Hall, Kenneth D. "Data Processing Questions That Executives Need To Ask." *The EDP Auditor Journal* of the EDP Auditor's Foundation, Fall 1983, pp. 37-57.

Malabarba, Frank J. "Data Base Machines—It's About Time." Department of the Navy, Naval Data Automation Command, Washington, D.C.

Perry, William E. *Auditing Data Systems*. EDP Auditors Foundation, Altamonte Springs, FL, 1980.

See Data, pg. 35

Data, cont'd from pg. 34

Perry, William E. *Selecting EDP Audit Areas*. EDP Auditors Foundation, Altamonte Springs, FL, 1980.

Ross Steven J. "What EDP Auditors

Will See In The Future." *The EDP Auditor Journal* of the EDP Auditor's Foundation, Fall 1983, pp. 27-35.

Shelly, Gary B., and Thomas J. Cashman. *Introduction To Computer Programming—Structured Cobol*.

Anaheim Publishing Company: Sera, CA, pp. 1.1-1.4.

Staats, Elmer B., Comptroller General of the United States. *Auditing Computer-Based Systems-Additional GAO Audit Standards*. U.S. Government Printing Office, 1979.

Technology, cont'd from pg. 15

Conclusion

As more technologies enter the GAO work place, we must help our staff see

the benefits of change so they will not be intimidated by it. If properly prepared, they will accept change with a minimum of problems in the transition. Successful integration of new technol-

ogy is not easy; it requires commitment, cooperation, and support. The dollar value of these important elements is intangible, but the return on investment in them is clearly worth the effort.

Computer, cont'd from pg. 17

nications security. These responsibilities, in addition to those for assuring the security of classified and certain unclassified but sensitive data, include working with the Federal Communications Commission and common carriers to adopt policies that protect privacy. GAO has pointed out, however, that in the past NTIA has only been concerned about such nonclassified, sensitive information as financial data and has ignored telecommunications guidance when only personal information was involved.

GSA issues policies and regulations for physical security of computer facilities, establishes guidance for other agencies in certain computer-related procurements, and ensures that hardware and software procurements contain appropriate security requirements. In 1980, GSA included in the Federal Property Management Regulations requirements for security safeguards for federal agencies and contractors. GSA also conducts reviews of agency actions to assure that the agencies meet security requirements. Although GAO found that GSA regulations and oversight reviews could substantially improve security characteristics of federal information systems, GAO emphasized that agency compliance reviews have not, in the past, assessed fulfillment of security requirements.

NBS has responsibility for developing uniform federal automated data processing standards under the Brooks Act. NBS, from 1978 to January 1982, issued only 1 standard and 6 guidelines, even though in 1978 the agency planned to issue 36 standards that it considered necessary to assure computer security. A GAO review, however, stated that failure to develop and issue all of the needed security standards leaves executive agencies without the needed guidance for developing and operating secure information systems.

Expectations for Future Directions in Information System Security

The growth and changes in high-tech information systems will be accompanied by growth and changes in system misuse and crimes against these systems. At the same time, the audit and evaluation of automated systems and related safeguards will grow and change. For example, one expert noted that, although computer operating systems are being developed with substantially more security features, the growing number of knowledgeable persons, along with the increased attempts to misuse information systems.⁷ The increasing ownership of microcomputers combined with telecommunications access to major computer systems will increase the opportunities for and the types of computer crime. Another expert points out that new types of crimes are occurring; for example, government employees have used agency computers to develop programs to sell for private profit, and politicians have illicitly used government computers for direct mail campaigns.

The increasing economic feasibility of encryption (a method of encoding data) can be expected to make encryption play a larger future role in assuring information systems security. According to one expert, the Privacy Act of 1974 has partially created a new standard of due care for many information systems, which in the future may require widespread use of encryption to meet acceptable security standards.

Perhaps the most visible response to increasing threats is that information system auditing is expected to grow rapidly as concern about security increases. GAO predicts that information system auditing in both the private and public sectors is expected to grow substantially in the 1980's. Also, federal and state legislation addressing

computer crime will increase along with the growth of computer-related auditing.

Computer Crime Legislation

In the 98th Congress, Representative Bill Nelson introduced H.R. 1092 on January 31, 1983, and Senator Paul Trible introduced a similar bill, S. 1733, on August 3, 1983. This legislation would make intentional misuse of federal computer systems a crime, including such misuse as unauthorized use of data, alteration of files, and theft of products, services, or data.

At the same time, Representative Ron Wyden and Senator Paul Tsongas have introduced H.R. 3075 and S. 1920 on May 19 and October 4, 1983, respectively. These bills are intended to encourage small business use of computer technology and to create a task force to study the implications of computer crime. Some other bills addressing computer crime are⁸ (1) H.R. 3570 (July 4, 1983) provides penalties for counterfeiting access devices and has other purposes, (2) H.R. 4301 (Nov. 3, 1983) provides penalties for certain computer-related crimes, and (3) H.R. 4384 (Nov. 14, 1983) establishes a special computer security research program and provides criminal penalties for computer misuse.

According to one expert, federal prosecutors have been handicapped because their cases were constructed on laws that did not envision the technical aspects of computer crime. Hopefully, these bills will remove some of the problems that face the legal system by clarifying legal prohibitions and directly addressing the unique types of computer misuses.

⁷Jonathan Moffett, "Zen and the Art of Computer Security," *Information Privacy* (May 1981), p. 25.

⁸Rosalie Steier, "Congress Tackles Computer Abuse," *Communications of the ACM*, Vol. 27 (January 1984), pp. 10-11.

system which fostered this sort of thing. I think, as Greg and Frank also indicated, that over time we have different ways of doing it, but we have done it all along. We've brought in people 20 or 30 years ago who moved all the way to the top because we let them grow and because we motivated them. Today there are different ways of motivating people, and we need to learn how to do that well. The point is that I think good managers should take pride in the fact that they are bringing these people along so that they can take over for the senior manager when he or she leaves.

Mr. Mayhugh: And as you pointed out, the balance in terms of the task or the product versus the people is something we have always got to keep in mind so that we are managing both the resources and the people at the same time in the right way. If you were to summarize the discussion and GAO's commitment to a strong career management program for managers, what do you see as the major challenges our agency will face in the 1980's?

Mr. Fee: I think there are a lot of challenges facing us as an agency in several respects. First, the demand for the information that we can provide to the national debates is going to increase. People are going to want to have the knowledge that we have or that we are able to acquire, so we've got to be able to organize ourselves and motivate ourselves to give that kind of information. That means we have to be better at identifying what work we have to do and should do. But we've got to do it a little more efficiently than we have been able to do it in the past in order to meet that demand. So I see that as a challenge.

Another challenge, I think, is that the work force our managers will be working with in the 1980's is different from the work force they had in the 1970's and 1960's. Our managers need to be

able to understand what is driving that particular work force, what will motivate it, and at the same time, meet the challenges that I've already enumerated in terms of the work that we have to do. The other thing that I will add to that is that the organization's ability to satisfy all of the demands and all of the aspirations of all of our people becomes much more difficult in an environment where you basically have limited growth, if growth at all. Managers will need to know what's driving the work force, be able to help people manage their careers, and manage their own. These factors are going to require a knowledge of how to do all that. This includes a skill in talking with people, in motivating and communicating, and encouraging people to find what they want out of life, not necessarily always in the GAO. I don't think we've even begun to tap how we can explain all of that to our managers and put it in a framework within which they can pick it up and run with it. Yet, clearly 3 or 4 people at the top of the organization can't do that for everyone. I see a knowledge transfer that has to take place, an awareness, a training effort, and an education effort to make all that work.

Mr. Eschwege: Maybe some of this is repeating what you're saying, but it may be important for emphasis. We've got to keep up with the technology all the time. I don't think we should be stagnant; we must constantly develop the careers of our people. It's important that we identify and hold on to good people.

That's not inconsistent, I think, with what Frank says—that once in a while you have to let people go somewhere else for a few years, then bring them back and capitalize on what they've learned while they were away. Obviously, we can't promote everyone. We've got to find other incentives, and I know Greg and his people are working on a different kind of a pay system that could make that possible. We need to do one more thing where perhaps we

haven't done as well in the past. We have to get our people in the mode where they fully realize they are part of the overall professional organization and not just a unit or division. Teams between divisions must work together for the common goal. A little competition is okay, but not to the point where it could lead to destructive rivalry.

Mr. Ahart: Let me expand on what Henry said as far as some words that he used about bringing aboard and keeping good people. In the long term, you really don't depend on the pay system to do that. You depend upon and try to create an environment within the institution that becomes attractive to people who enjoy it and stay with it for at least some part of their careers. As Frank said earlier, they feel good about being part of the organization; they feel they are making a contribution. All in all, GAO has been the kind of an institution where most people feel good about coming to work in the morning. Sure, pay increases are nice, promotions are nice, but there's inherent worth in working with GAO. We have to do everything we can to enhance that character by doing a lot of other things, such as keeping it technologically up to speed, working with current issues that are important, and making a real contribution that people value as being their individual contribution as well as the organization's. If you talk about the challenge of the 1980's and you look at the profile of our organization in terms of age, etc., you don't have to go many years into the future to see the virtual disappearance from the scene of people who currently make up the Senior Executive Service core, plus a high component of the people at the grade 15 level, the grade 14 level, and so on. When we talk about career management, we have to keep in the forefront of our minds that, 20 years from now, those people we want to identify, attract, and keep will be key actors in making this institution the kind of place where people want to work.

Processes Impeding Removal

FDA has several options when it learns a drug manufacturer is selling a product found to be unsafe and ineffective or is otherwise violating federal laws and regulations. One option for FDA is to send an adverse finding letter to a manufacturer. In this letter, FDA cites the problem and requests

corrective action. FDA can also send a more formal regulatory letter threatening legal steps if a company does not take action, and it can resort to seizures, injunctions, or prosecutions. Product recalls are another way to remove unsafe drugs from the market. Recalls are voluntary actions either initiated by a firm or requested by FDA.

Despite these enforcement tools, unsafe drug products are still entering the marketplace because FDA has not been able to act quickly enough to prevent distribution. For example, in fiscal

years 1979 through 1981, FDA approved 495 seizure actions against drug products which violated federal regulations, but a third of the actions seized no products.

FDA learned in a February 1980 case that two lots of a drug used for various purposes, such as treating asthma and inflammatory conditions, had failed certain FDA content uniformity tests (that is, some ingredients fell outside the acceptable range). These pills were

See Drugs, pg. 37

known to produce certain adverse reactions, including cardiac arrhythmias, circulatory collapse, peptic ulcers, convulsions, and catatonic reactions. An internal FDA memorandum warned that the product was a critical drug which should be removed promptly from the market if it failed to meet content uniformity requirements. The manufacturer, however, questioned FDA's test results and ignored the requirements. The Office of General Counsel approved seizure in April 1980, but when seizure was attempted in June, the product had disappeared. FDA, when it first had learned of this problem, knew that 1.3 million tablets had been shipped to a distributor.

GAO's report on this matter⁴ documented the lengthy process involved in getting approval within FDA to seize a drug and then obtaining a court order for U.S. marshals to seize the product. The average time for approval to seize took 61 days within the Department of Health and Human Services. Another 34 days were required to process the seizure order through the U.S. attorney's office and the court to make the seizure. All during this time, FDA had no authority to take the product off the market.

Tylenol Scare Triggered Major Packaging Changes

In addition to these regulatory problems, an article on drug safety would not be complete without discussing the so-called "Tylenol scare." The packaging industry was shaken in fall 1982 when seven people died from cyanide-laced Tylenol. The Tylenol deaths and the more than 100 "copycat" poisonings recorded around the nation resulted in an almost overnight revolution in over-the-counter drug packaging.

Responding to those events, FDA issued new regulations for tamper-resistant packaging for over-the-counter drugs. The regulations, drawn up within 35 days of the Tylenol deaths, went into effect without the usual public comment period and without the benefit-cost analyses required by the Vice President's Task Force on Regulatory Relief. The regulations cover non-prescription products for oral, nasal, ear, eye, rectal, and vaginal use, plus such certain cosmetic products subject to tampering as mouthwashes. The regulations require that these products carry a warning label telling consumers how to check for signs of tampering. The regulations also require a distinctive design on the seal. This makes it harder to restore the cap after it has been removed.

To help restore public confidence in Tylenol, Johnson and Johnson repackaged the product with three distinct safety features: (1) glued flaps on the outer box, (2) a tight plastic neck seal around the bottle, and (3) an inner foil seal over the bottle's mouth. In addition, a bright yellow warning label written in red letters says: "Do not use if safety seals are broken." The firm estimated that the repackaging cost 2½ cents a package.

Prescription for the Future: Continued Vigilance

FDA will continue to use various ways to protect American consumers from prescription and patent drugs potentially hazardous to human health. Simultaneously, GAO will continue to monitor FDA's efforts and recommend improvements where warranted. But past lessons have shown that despite these efforts, a small number of such drugs will inevitably reach the public and cause health problems. Perhaps the best that can be hoped for is that FDA's efforts will reduce the health hazard to a minimum, ensuring swift action to remove dangerous drugs from the marketplace.

⁴Legislative and Administrative Changes Needed to Improve Regulation of Drug Industry" (GAO/HRD-83-24, Apr. 5, 1983).

Profile, cont'd from pg. 27

I received was from staff of the Arizona State Inspector General's office; they thought electronic workstations might be useful in their environment. I referred them to our office automation group in Washington, D.C., for statistics and in-

formation on GAO's utilization.

GAO Review: Tom, thanks very much for your thoughts. We look forward to having future articles from you, perhaps in traditional styles as well.

Pastore: You're quite welcome. I hope my story and success will encourage other GAO staff to try their

hand at either composing for the *Review* or typing their own written products. After all, as auditors Know Change and No Change might say, "Don't say no to writing, because then you'll never know what success may come your way." Simply put, I hope my message fell on some "knowing" ears!

Week's Worth, cont'd from pg. 29

after their sister while I start supper. Just then the phone rings; it's Mario, and he wants to know if I can come pick him up. His car won't start. He had called from a service station not too far from where he works. When I picked my husband up at the service station, we drive to where the car is; we aren't able to get it started so we just go home.

Thursday

The snow didn't stick to the ground very much last night. I had to leave the house about an hour earlier to drive Mario to work; he said he'd try to start

the car. If he can't, he'll catch a ride home in the evening with one of the guys. After that, I drove quickly home to pick up Renata. Kerin and Sandy had gotten her ready for me while I was gone. Their thoughtfulness certainly saved me some time.

I have a report review conference today on a job I had recently edited. Mr. Burrow had brought me a revised version of it yesterday. However, due to my extra-heavy workload and other priorities, I'd really been unable to get to it. Mr. Burrow had told me not to worry. He is so considerate. I like having him as my supervisor for a score of reasons. He's considered by many in the region to be an expert at report review. He has a knack for being able to cut through a lot of extraneous

material to get at the "heart" of the objectives, and he's got the experience and patience to deal with a junior staff member like me! Besides, when he feels strongly about a change, he has the authority to enforce it.

The conference is to be held in his office but we have to wait for the evaluator-in-charge and the regional manager to arrive from the airport. I take this time to go to Lee Newton's (the evaluator-in-charge) office and ask if he's had a chance to look at the draft I had left on his desk the night before. He has and I tell him I'd like to discuss it with him. We get through almost all of the draft before Karen Sifford, Mr.

See *Week's Worth*, pg. 38

Burrow's secretary, comes to tell me that the other members of the conference have arrived from the airport. Lee and I finish quickly. I have time to grab a cup of coffee in the lunchroom and find our visitors are in there getting a cup of coffee too! A few minutes later, we walk to Mr. Burrow's office to start the report review.

Mr. Burrow tells them that I haven't looked at the revised version yet, but that I am to contribute my thoughts to the conference. This is a really good learning experience for me and, as I sit there, I try to understand as much as possible how Mr. Burrow zeros in on just what isn't right about the way something is presented. He also makes me feel like an important part of the conference. What I also like about him is that, even though he's an expert in his field, he defers to me in other matters. He rewrites a paragraph, then hands it over to me to see the change. But the visitors also have suggestions on what they want to say—it's a back and forth brainstorming session. It seems only minutes until lunchtime rolls around, and we decide to continue after lunch.

During lunch, I reread several chapters of "*Centennial*" by James Michener. I'm a fast reader and can go through an average-sized book a day. Before my lunchtime is over, I receive a call from my husband, who informs me that he still can't get the car started, he'll be home a bit later than usual, and he'll have to ask one of his co-workers to

help him tow it home.

When we finish up for the day, we've still got a few more pages to review. That means we have to continue in the morning. I return to my office and notice there's a new version of the draft I'd worked on with Everett and Art. An attached note specifies that I give a quick turnaround on it. I still have almost an hour before I can go home, so I start on it. At the end of my work day, only three pages remain to be done. I can finish it up quickly in the morning before resuming the conference. With that, I leave for the day.

Friday

I come in early today; I have the report review conference to continue and I don't know how long that will take. I also want to finish the edit I'd left on my desk the day before. I go through it quickly and catch Everett so that we can discuss the changes that I'd made on his job. I go into Mr. Burrow's office where everyone is sitting around the table. We work steadily for about an hour and a half before we take a short break. The conference ends about half an hour before lunch. I check my mailbox and find the transcripts Susanne has mailed me.

I return to my office and start on the transcript I'd set aside on Wednesday. While I was doing that, Don Hawks, a senior staff member, stopped by to ask me about the format of a table for an appendix to the draft he is working on. We discuss the headings and figures on it. Don and I finish quickly, and I catch up with Sharon Fritz at the

elevator. About eight of us are attending a luncheon to celebrate both Audrey's and Janet's birthdays. We're going to "*Jennie's*," a Polish-American restaurant, which is not too far from the office. Before I came to the KCRO, I had been told that being a staff member of a regional office would be like being part of a family. I guess traditions like the Birthday Club are part of what that person meant. I enjoy being in Kansas City—the office and the area. When I was doing research for the article, "*The Kansas City Regional Office—At the Crossroads of the Nation*," (*The GAO Review*, Winter 1982) I was fairly new to the region. But it afforded me the chance to learn about my new home and get to know some of the history of both the office and the area. Since that time, about the only thing I don't like about Kansas City is the combination of hills and snow. Because if I did learn one thing from the research, it's that Kansas is *not* flat!

When we return from our luncheon, I have to call Susanne Valdez about the transcript. I finish the transcript and spend the rest of the afternoon reading through a draft on agriculture.

Being a writer/editor entails much more than correcting grammar and punctuation. You have to be a researcher, a detective, a diplomat, an innovator, an artist, and a Jack/Jill-of-all-trades. You have to be open-minded and willing to teach as well as learn.

I straighten up my desk and turn out the lights in my office. I am looking forward to practicing this evening for my guitar lesson tomorrow.

GAO Staff Changes

Senior Staff Changes



Lois-ellin Datta

Dr. Datta has been appointed Associate Director (Demonstration, Design, and Technical Assistance Group) of the Program Evaluation and Methodology Division (formerly the Institute for Program Evaluation).

Dr. Datta joined GAO in 1982 as a Supervisory GAO Evaluator and Group Director in the Institute for Program Evaluation. Over the last year, Dr. Datta has made substantial contributions to GAO in her evaluation and analysis of programs affecting retirement/aging, education, and a variety of services and legislative issues. Prior to joining GAO, Dr. Datta worked with the National Institute of Education (NIE) on projects measuring the quality and impact of various educational programs.

Dr. Datta is a member of the American Educational Research Association, Evaluation Research Society, Society for the Psychological Study of Social Issues, and American Association for the Advancement of Science.

She received her Ph.D. in 1961 from Bryn Mawr College in comparative and physiological psychology. She is an acknowledged national authority in the field of program evaluation, and has many publications and papers to her credit. She is coeditor of the *Evaluation Research Series* and, most recently, of a book entitled *Improving Evaluations*.



Clifford I. Gould

Mr. Gould, Assistant to the Comptroller General for Federal Retirement Matters, retired from GAO December 3, 1983. He had spent 30 of his nearly 34 years of government service with the agency. Mr. Gould has agreed to continue advising GAO to assure that any proposed changes to the retirement system are fair and reasonable to both the federal employees and to the government.

Mr. Gould joined GAO in Kansas City in 1954. In 1965, he went to the Far East Branch as assistant director, returning in 1971 as assistant regional manager of the St. Louis suboffice. In 1972, he came to headquarters as associate director in the Federal Personnel and Compensation Division (FPCD). He became FPCD deputy director in 1976 and director in 1981. During 1980, he served as a special assistant to the Comptroller General, directing implementation of the GAO Personnel Act.

Mr. Gould served in the Air Force from 1946 to 1949 and from 1951 to 1952. He received a bachelor of science degree in business administration from Kansas State University and has done graduate work in economics. In addition, he completed the Program for Management Development at the Harvard Graduate School of Business Administration and the Senior Executive Education Program at the Federal Executive Institute.

A past Chapter President of the Association of Government Accountants, Mr. Gould is a member of the Federal Executive Institute Alumni Association, the International Personnel Management Association, and the American Society for Public Administration.

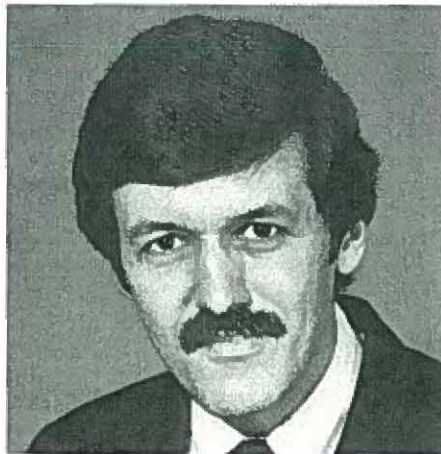


Ronald J. Points

Ronald J. Points, Associate Director, Accounting and Financial Management Division, left GAO on December 10, 1983, to join the firm of Price Waterhouse as Director of Federal Accounting.

Mr. Points joined GAO in September 1969 with the former Civil Division. During his career with GAO, he coordinated accounting and auditing policy matters between the federal government and state and local governments as well as the accounting and auditing community. In January 1981, he was designated as the associate director for the newly created Accounting and Financial Auditing Group.

During his career, Mr. Points made major contributions to the field of financial management. He was instrumental in establishing a proposed independent Government Accounting Standards Board; he assisted in drafting Public Law 95-595, which placed federal government pension plans under the reporting and financial statement audit provisions of the Employee Retirement Income Security Act; he was instrumental in seeing through the Congress legislation to improve internal controls and financial management in the federal government (the Federal Managers' Financial Integrity Act of 1981).



Ray C. Rist

Dr. Rist has been appointed Deputy Director of the Program Evaluation and Methodology Division (PEMD).

He joined GAO in 1981 as a Supervisory GAO Evaluator in IPE (the Institute for Program Evaluation, PEMD's predecessor). His extensive knowledge of evaluation design principles has helped construct the proper analytical framework for jobs as diverse as reviews of defense, education, and employment programs.

Dr. Rist contributed to various academic and professional efforts prior to his assignment at GAO. From 1977 to 1981, he was national director of the Youthwork National Policy Study and a professor at Cornell University. Dr. Rist worked from 1974 to 1976 with the National Institute of Education (NIE) in several capacities on planning and implementing research and evaluation programs. He left NIE in 1976 to accept an appointment as Senior Fulbright Fellow at the Max Planck Institute in Berlin, West Germany.

He received the Meritorious Service Award in 1983, a Certificate of Merit in 1982, and the J. F. Kennedy Memorial Award in 1965. He is a member of the Evaluation Research Society, American Sociological Association, Society for the Study of Social Problems, and the Conference Group on German Politics, among others.

He earned his Ph.D. in sociology in 1970 from Washington University in St. Louis. He has written 11 books and several articles.



Frederick Wolf

Mr. Wolf was designated the Director of the Accounting and Financial Management Division (AFMD) in January.

Mr. Wolf, formerly an audit partner with Arthur Andersen & Co., joined GAO in August 1983 as Special Assistant to the director of AFMD. He joined Arthur Andersen in Chicago in 1962 upon graduation from the University of Michigan. In 1969, he spent 8 months with the Illinois Department of Finance as a consultant.

Returning to Arthur Andersen, he transferred to the firm's Netherlands office where he worked as an audit manager. In 1971, he transferred to the Hamburg, Germany, office, where he served as managing partner from 1975 to 1979. He returned to Arthur Andersen's Houston office in 1979 as an audit partner and member of the firm's oilfield service team and was in charge of the office's Professional Education Division.

SES Reassignments

Name	From	To	New Area of Responsibility/Title
Delfico, Joseph F.	PEMD	HRD	Associate Director (Income Security Programs)
Peterson, Robert A.	HRD	ACG (Operations)	Special Assistant to the Assistant Comptroller General for Operations

Additional Staff Changes

Supervisory Employee Development Specialist

Office of Organization and Human Development
Steven M. Medlin

Supervisory GAO Evaluator

Information Management & Technology Division

Barry R. Snyder
Allen Li
Frank S. Heard

Dallas Regional Office

Gerald F. Schmidt

Office Director

**Office of Foreign Visitor and International
Audit Organization Liaison**
Elaine L. Orr

Assistant Regional Manager

Washington Regional Office

James Carlan

Economist

Office of Chief Economist
James Bothwell

New Staff Members

The following staff members reported for work during the approximate period November 1, 1983, through January 31, 1984.

Division/Office	Name	From
Accounting and Financial Management Division	Butler, Debra	Virginia Tech
	Cogar, Sandra	West Virginia University
	Fields, Eddie	West Virginia University
	Gallus, Bruce	Walter E. Heller International Corporation
	Grinnel, Peter	Auditor of Public Accounts, State of Virginia
	Holland, Ashlyn	West Virginia University
	Parker, Myrna	American Institute of Certified Public Accountants
	Sohr, Mary	Eastern Montana College
	Worley, Mary	Bowling Green State University

Regional Offices

Regional Office	Name	From
Atlanta	Avery, Helen	Kemper Insurance Company
	Jenkins, Doddbra	Brown Trucking Company
	Kelly, Tracy	University of Tennessee
	Ruiz, Luis	University of West Florida

New Staff Members (cont'd)

Boston	Arns, Jennifer Barter, Joanne DiChiara, Lisa DaVino, Rosemarie Lindsey, Regina Tina O'Neil, Eva M. Sheehan, Daniel J.	Environmental Protection Agency Wakefield Massachusetts School Department Northeastern University Federal Emergency Management Agency School United States Trust Company Suffolk University
Chicago	Landy, Blair D. Griffin, Jacqueline	Internal Revenue Service Alden's Inc.
Cincinnati	Leonard, Jimmie D.	Governor's Office, State of Alaska
Dallas	Dunn, Natalie James, Jacqueline	University of Texas University of Texas
Denver	Arkawa, Michael J.	University of Colorado
Detroit	Giles, Valerie L. Mazur, Linda Milst, Denise M. Wolffradt, Carol L.	University of Detroit University of Michigan University of Michigan University of Michigan
Kansas City	Mikkelson, Janet B. Thomas, Bonnie S.	Southern Illinois University Langston University
Los Angeles	Bancroft, James Greenwalt, William Majauskas, Taurus J. Parker, Joanne	California State University California State University Michigan State University University of California
San Francisco	Jones, Edyth Scannell, Michael	Unemployed Bank of America
Washington	Bolz, Steven Feldman, Debra Grimm, Dana Hamner, Larry Leary, Ann Morse, Angela Pniewski, Mary Ragland, Susan Springer-Hamilton, Karla	Montgomery County Office of Consumer Affairs Environmental Protection Agency George Mason University Agency for International Development European Branch George Mason University City Manager's Office N. Virginia Transportation Commission Co-op Conversion

Retirements

The following staff members retired from GAO during the approximate period November 1983-January 1984.

Division / Office	Name	Title
Accounting and Financial Management Division	Nikel, Bernhard W. Yasher, Michael R.	Systems Accountant Supervisory Accountant
Office of General Counsel	Wanat, Anthony W.	Information Control Technician
General Government Division	Gresh, John Meacham, Venor Wild, Jacob	Evaluator GAO Evaluator Supervisory GAO Evaluator

Retirements (cont'd)

General Services and Controller	Canterbury, Marie B. Houston, Andrew	Supervisory Management Analyst Procurement Assistant
Human Resources Division	Ferguson, Robert J.	Evaluator
Personnel	Painter, Teresa F.	Personnel Clerk
Resources, Community and Economic Development Division	Roman, Theodore	Supervisory GAO Evaluator
Regional Offices		
Atlanta	Lind, Robert J.	Evaluator
Chicago	Rasky, Minora M.	Secretary
Dallas	Crook, Tommie F.	Evaluator
Denver	Hessek, Edgar L.	Supervisory GAO Evaluator
Kansas City	Davis, William S. Zago, Arthur	Evaluator Evaluator
Norfolk	Stanley, John A.	Evaluator
Philadelphia	Ormsby, Robert A.	Evaluator
Seattle	D'Addario, Irwin M.	Supervisory GAO Evaluator
Washington	Gearino, George D.	Supervisory GAO Evaluator

Deceased

Richard E. Brown, an evaluator who retired from the Boston Regional Office in January 1980, passed away November 25, 1983.

Attritions

The following staff members left the agency during the approximate period November 1983 through January 1984.

Division / Office

Name

Accounting and Financial Management Division

Deutsch, Louis
Dyson, Robert A.
Eckman, Ronald L.
Kudobeck, Raymond C.
Muldoon, Thomas J.
Thomas, Pat

Office of the General Counsel

Hordell, Michael A.
Hynous, Anne-Marie
Leger, Charles P.
Warmuth, David S.

General Government Division

Bishop, John
Garrison, Howard
Godshaw, Gerald
West, Tina

Attritions (cont'd)

Regional Offices

Atlanta	Haynes, Gene Parker, Anita Rehberg, Robert Woods, Elisa
Boston	Blacknall, Bernadine Frazier, Mary Ellen Kines, Alice
Chicago	Hussa, Paul J. Roth, Jesse N. West, Bobbie A.
Cincinnati	Chunn, James W.
Denver	Klee, Andrew F.
Detroit	Harju, Donna Mioni, Francis Silski, Carol
Kansas City	Braun, Edward E. Rogers, Katherine L. Rose, Megan M.
Los Angeles	Brunelle, Roberta Bull, Catherine
Philadelphia	Vera, William
San Francisco	Buonaiuto, Karen
Seattle	Le, Doan-Trang McKinley, Delores V. Miyake, Brad M.
Washington	Bonnell, James Byroade, Alan Dowling, M. Joy Fitzhugh, Mayo James, Deborah Robertson, Irene Rodriquez, Yvonne Rogers, William Salvemini, Anthony Strome, Sheree Tomnosky, William

Professional Activities

Office of the Comptroller General

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

Beta Alpha Psi Chapter, University of Texas, Austin, Nov. 10.

Connecticut Society of CPAs, Hartford, Nov. 17.

National War College, Alumni Association, Washington, Dec. 7.

Joint meeting of the Association of Government Accountants and the American Society of Military Comptrollers, Indianapolis, Jan. 12.

Francis X. Fee, Assistant Comptroller General:

Addressed a Brookings Institution Conference on Government Operations on "GAO's Role and Responsibilities," Washington, Nov. 14.

Participated in a planning and coordination meeting of the Intergovernmental Audit Forums, Alexandria, VA, Nov. 2.

Accounting and Financial Management Division

Frederick D. Wolf, director, spoke on "Future Directions for GAO Financial Management Activities" before the D.C. Institute of CPAs, Washington, Jan. 26.

Virginia B. Robinson, associate director:

Participated in a panel discussion on "Careers in Accounting" sponsored by American University, Washington, Dec. 8.

Spoke on "Accounting Systems Approval, the GAO Approach" before the National Institute of Management Research, Washington, Dec. 9.

Spoke on "Approval of Accounting Systems" before the District of Columbia Institute of Certified Public Accountants, Washington, Jan. 26.

George L. Egan, Jr., associate director, spoke before the Interagency Auditor Training Programs Graduate School, USDA, on "Effective Govern-

ment Auditing," Washington, Jan. 25.

John F. Simonette, associate director:

Spoke before the Southwest Intergovernmental Audit Forum on the "Review of the Federal Managers' Financial Integrity Act," Little Rock, Jan. 18.

Participated in the Association of Government Accountants' Financial Issues Program panel discussion on the "Financial Integrity Act—The First Year," Washington, Jan. 25.

Bruce K. Michelson, group director, spoke before a professional development seminar sponsored by the National Association of Accountants on "Interrelations with the Accounting Profession when Developing Accounting and Internal Controls Standards for the Federal Government," Miami, Dec. 7.

Office of the Chief Economist

Lawrence H. Thompson, chief economist:

Discussed "Social Security Financing: Recent Problems and Current Uncertainties" before the Industrial Relations Research Association, San Francisco, Dec. 30.

Was the author of "The Special Security Reform Debate," published in the December 1983 issue of the *Journal of Economic Literature*.

John V. Wells, economist, spoke on "Potential Costs of Unisex Pension Legislation" before the National Conference of State Legislatures, Washington, Dec. 15.

Office of Foreign Visitor and International Audit Organization Liaison

Elaine L. Orr, director, coordinated and organized a French Exchange Meeting for the American Consortium for International Public Administration, in Washington, Dec. 9-10. The colloquium was hosted by GAO. The theme was on "Bilateral Colloquium on Decentralization."

Jim Wesberry, senior adviser on international audit institutions:

Discussed "Training Local Staff for Audit Reliance" at the Institute of Internal Auditors' Conference in Auditing for Multinational Operations, New York, Nov. 7-9.

Wrote an article entitled "The Debt Overload: An Opportunity To Improve Governmental Financial Management" published in *The Government Accountant's Journal*, Fall 1983 issue, also reprinted in *Public Fund Digest*, Vol. 1, No. 2, 1984.

Office of the General Counsel

Rollee H. Efros, associate general counsel, spoke before the Judge Advocate General School, University of Virginia Law School, on "The Bona Fide Needs Rule and Other Funding Problems," Charlottesville, Nov. 15.

Seymour Efros, associate general counsel, spoke before the Judge Advocate General's School on "Bid Protests," Charlottesville, Jan. 9.

Ronald Berger, assistant general counsel, gave a keynote address on "GAO's Impact on ADP Procurement" at the 8th Annual Conference on Federal ADP Procurement, Washington, Dec. 14.

General Government Division

William J. Anderson, director:

Spoke at the State Drug Enforcement Alliance on Current Federal Drug Interdiction Efforts in Detroit, Oct. 5.

Addressed the annual meeting of the National Emergency Management Association on GAO's report "Consolidation of Federal Assistance Resources Will Enhance the Federal-State Emergency Management Effort" in Springfield, IL, Oct. 18.

Participated in the National Institute of Public Affairs seminar on the Intergovernmental Challenge on "Strengthening Federal Capability for Intergovernmental Management" in Leesburg, VA, Dec. 7.

Addressed the special seminar Administration of Public Policy on "Evaluating Program Impacts and Outcomes" at the Kings Point Executive Seminar Center in Kings Point, NY, Feb. 1.

General Services and Controller

Jean Knowles, writer-editor, Office of Publishing Services, developed a seminar entitled "Writing for Results," which she presented to the Association of Government Accountants' Indianapolis chapter on Nov. 16 and the AGA Atlanta chapter on Nov. 18.

Joint Financial Management Improvement Program

Susumu Uyeda, executive director:

Gave a presentation on "Intergovernmental Relations and Financial Management" before the Association of Government Accountants Chapter, Des Moines, Nov. 3.

Gave a keynote address on "Making An Impact on Financial Management" at the Association of Government Accountants Mid-Missouri Financial Management Workshop, Lake of the Ozarks, Nov. 10.

Spoke on "Intergovernmental Relations and Financial Management" before the Springfield and Madison chapters of the Association of Government Accountants in Springfield, IL, and Madison, WI, Nov. 15 and 16, respectively.

Gave presentations on "Financial Management Improvement Efforts in the Federal Government" to the Association of Government Accountant chapters in Portland, San Francisco, Palo Alto, and San Bernardino, on Jan. 23, 24, and 25.

Spoke before the Joint Meeting of the Orange County, Los Angeles, and San Fernando Valley chapters of the Association of Government Accountants on the "Financial Management Efforts in the Federal Government" in Ontario, Jan. 26.

Office of Organization and Human Development

Howard N. Johnson, manager, Career Counseling and Development Branch:

Gave a presentation "Maximizing Skills with a Positive Self-Image" for the Association for the Improvement

of Minorities—OIRS, Washington, Aug. 19.

Presented a paper entitled "Model and Philosophy of a Comprehensive Organizational Counseling Program" at the American Psychological Association Annual Conference, Anaheim, Aug. 27. This paper was coauthored by members of his staff—Robert Ackley, Milton Cambridge, Ellen Harvey, Thomas Jones, and Janet Wilson.

Gave a presentation on "Employee Assistant Program and Organizational Development" at the Association of Employee Assistant Program Planner Annual Conference, Washington, Oct. 14.

H. Rosalind Cowie, manager, Training Branch:

Participated in a panel discussion on the "Use of Consultants in Training and Development Activities" at the Potomac Chapter of the National Society of Performance and Instruction, Washington, Oct. 20.

Published an article entitled "GAO Matches Training and Competencies" in the Summer-Fall 1983 issue of the *Federal Trainer*.

Paul Lazar, education specialist:

Participated in a panel discussion entitled "Computers: A Management Tool for Training Officers" at OPM's Training Managers' Workshop, Emmitsburg, MD, Oct. 26.

Published an article entitled "GAO Launches Information Management Audit Training," in the Summer-Fall 1983 issue of the *Federal Trainer*.

Judith Glenn, management development specialist, gave a workshop entitled "Stress Management: Coping in the Workplace" at the Central Pennsylvania Chapter of the Association of Government Accountants, Harrisburg, Sept. 30.

Susan Taylor, education specialist, presented two workshops on "Effective Presentations" at the Federal Interagency Field Librarians' annual conference in Denver, Nov. 3-4.

Office of Quality Assurance

Mark Nadel, management analyst, wrote "Making Regulatory Policy," a chapter in *Making Economic Policy in Congress*, published by the American Enterprise Institute. He also served as adjunct professor at American Univer-

sity, teaching in the School of Government and Public Affairs.

National Security and International Affairs Division

James Forsberg, evaluator, addressed two training sessions on the "Organization of GAO, how it operates, and its work relative to the Department of the Army" for the Inspector General, U.S. Army, during November 1983.

Julia Denman, senior evaluator:

Was elected Treasurer of the Society for Logistics Engineers, an international association of logistics professionals.

Gave a presentation entitled "Optimizing Limited Defense Dollars: A Challenge for Logisticians" at the St. Louis Chapter of the Society of Logistics Engineers, Oct. 18.

Spoke on "DOD Acquisition Logistics Initiatives: Progress and Problems" at the Defense Systems Management College, Ft. Belvoir, VA, Oct. 26.

Discussed "Perspectives on the Acquisition and Support of Military Weapon Systems: What the Non-logistician Needs To Know" at the Air Command and Staff College, Maxwell Air Force Base, AL, Jan. 10.

Bill Meredith, evaluator, discussed "GAO's Role in Reviewing Navy Acquisition Programs," at the Navy's Acquisition/Logistics Training Center, Washington, Dec. 7.

Allan Hovey, evaluator, discussed careers in public diplomacy with a class at American University, Washington, Dec. 8. GAO's report, *The Public Diplomacy of Other Countries: Implications for the United States* (ID-79-28, July 23, 1979) is required reading for the course.

Personnel

Felix R. Brandon, II, director, participated in a panel discussion on "What the Public Manager of the Future Needs To Know About Personnel" at the 14th Annual Conference of the National Capital Area Chapter of the American Society for Public Administration, Dec. 5-6.

Patricia A. Moore, deputy director for operations, has been appointed to the Human Rights Committee, International Personnel Management Association.

The committee is charged with monitoring national activity regarding equal employment opportunity and human rights programs and to advise the Executive Council and membership in these areas.

Regional Offices

Atlanta

Marvin Colbs, regional manager, spoke on "Carrying Out Oversight Functions—How GAO Interfaces with DOD," before the Comptroller's Course at the Air University, Maxwell AFB, AL, Nov. 18.

Boston

Paul Greeley, evaluator, presented a course on audit evidence to Massachusetts state auditors for the New England Intergovernmental Audit Forum, Nov. 15.

Ralph Tavares and **Ken Forbes**, evaluators, spoke on GAO's review of the potential of value engineering to reduce transportation costs at the National Value Engineering Conference, sponsored by the U.S. Department of Transportation, Kissimmee, FL, Nov. 18.

Nicholas Carbone, assistant regional manager, is New England Regional vice president-elect of the Association of Government Accountants.

William Yazbek, evaluator, is chairman of the Awards and Scholarships Committee of the Boston Chapter of the Association of Government Accountants.

Cincinnati

Arthur D. Foreman, acting technical assistance group manager:

Spoke on Auditing Applications Written in FORTH, to the Cincinnati FORTH Special Interest Group, Cincinnati, Jan. 8.

Spoke on Computer Auditing to the Ernst & Whinney Explorer Scout Troop, Cincinnati, Jan. 18.

Spoke on the Role of Specialists in GAO to the University of Cincinnati business fraternity Delta Sigma Pi, Cincinnati, Jan. 20.

Denver

Robert W. Hanlon, regional manager; **James A. Reardon**, senior evaluator; **Marcia B. Buchanan**, evaluator; and

Lucille Cordova, evaluator, spoke before the Colorado State Legislative Committee on implementing the single audit concept, Denver, Dec. 2.

Floyd A. Gonzales, evaluator, was awarded a plaque by the Denver Federal Executive Board for his outstanding contributions as Hispanic Employment Program manager during 1983, Denver, Jan. 26.

Marvin E. Hanson, evaluator, passed the CPA examination in Colorado, November 1983.

Detroit

Robert J. Piscopink, evaluator, spoke on "GAO's Review of the Implementation of the Single Audit Concept," at the Midwestern Intergovernmental Audit Forum, Chicago, Oct. 18.

William F. Laurie, evaluator, chaired a session on "Services for Older People," and gave a paper on "Golden-Age Outreach for Health, A Project Whose Time is Now," at the Gerontological Society of America meeting, San Francisco, Nov. 19.

Philadelphia

Charles D. Hodges, evaluator, was recently selected to serve as a member of the Professional Advisory Board at Westmoreland County Community College in Youngwood, PA.

San Francisco

Tim McCormick, regional manager, and **Karl Gustafson**, evaluator, participated in a press conference with Congressman Vic Fazio on GAO's report, "Status of Air Force Efforts To Deal with Groundwater Contamination Problems at McClellan Air Force Base," Sacramento, Nov. 29.

Jim Mansheim, assistant regional manager, spoke at an educational conference of the Los Angeles, Orange County, and San Fernando Valley chapters of AGA on "AGA Issues and Opportunities for Professional Development," Los Angeles, Jan. 25.

Jack Birkholz, senior evaluator:

With **David Peltier**, senior evaluator, and **Perry Datwyler**, evaluator, participated in a meeting of the Western Intergovernmental Audit Forum, Carson City, NV, Nov. 17-18.

Discussed the Western Intergovernmental Audit Forum at a meeting of

the Inland Empire Chapter of AGA, San Bernardino, CA, Nov. 9.

Gave a 1-day seminar on report point development to the staff of the Nevada Legislative Auditor, Carson City, NV, Nov. 14.

Spoke on "Audit Standards and the Single Audit" at a seminar sponsored by the Western Audit Forum and the California Association of Auditors for Management, San Diego, Jan. 23-25.

Steve Reed, senior evaluator, spoke to the Chicago Business Students' Association of California State University at Fresno on career opportunities in the federal government, Dec. 8.

Seattle

Keith C. Martensen, senior evaluator, received, through the Assistant Surgeon General, Department of Health and Human Services, Health Resources and Services Administration, the Public Health Service, Administrator's Special Citation Group Award. The award was given in recognition of his service on the Director's Task Force on Contract Health Services, Indian Health Service.

Roger D. Hauman, evaluator, participated in a panel discussion on "Policy Analysis/Program Evaluation" at the career day program of the Graduate School of Public Affairs, University of Washington, Seattle, Jan. 20.

Washington

Tom Brew, assistant regional manager, spoke on "The Role of the Regional Federal Women's Program Manager" at an FWP meeting in Washington, Nov. 1.

Eve Burton, evaluator:

Addressed a meeting of the New England Association of Southeast Asian Studies, Boston, on "War and Its Aftermath: The Refugee Experience," Oct. 31.

Discussed problems of acculturation for Vietnamese women in the United States and the role of the American sponsors in a radio interview for Christian Science News International, Dec. 1.

Spoke on "Victims of Violence: Southeast Asian Refugee Women" at the request of the Office of Refugee Resettlement, Health and Human Services, at its conference on Mental Health Concerns for Refugees in Region IV, Dec. 7.

Annual Awards for Articles Published in The GAO Review

Cash awards are presented each year for the best articles written by GAO staff members and published originally in *The GAO Review*. The awards are presented during the GAO Awards Program held annually in October in Washington.

One award of \$500 is available to contributing staff 35 years of age or younger at the date of publication, and another is available to staff over 35 years of age at that date. Staff through grade GS-15 at the time they submit the article are eligible for these awards.

The awards are based on recommendations of a panel of judges designated by the Editor. The judges will evaluate articles from the standpoint of their overall excellence, with particular concern for

- originality of concept and ideas,
- degree of interest to readers,
- quality of written expression,
- evidence of individual effort expended, and
- relevance to "GAO's mission."

Statement of Editorial Policy

This publication is prepared primarily for use by the staff of the General Accounting Office (GAO) and outside readers interested in GAO's work. Except where otherwise indicated, the articles and other submissions generally express the views of the authors and not an official position of the General Accounting Office.

The GAO Review's mission is threefold. First, it highlights GAO's work from the perspectives of subject area and methodology. (The *Review* usually publishes articles on subjects generated from GAO audit work which are inherently interesting or controversial. It also may select articles related to innovative audit techniques.) Second and equally important, the *Review* provides GAO staff with a creative outlet for professional enhancement. Third, it acts as historian for significant audit trends, GAO events, and staff activities.

Potential authors and interested readers should refer to GAO Order 1551.1 for details on *Review* policies, procedures, and formats.

For sale by the Superintendent of Documents, U.S. Government Printing Office,
Washington, D.C. 20410.

Documents published by the General Accounting Office can be ordered from GAO Document Distribution, (202) 275-6241.



3GA0L000454089

The GAO Review

Editor

Harry Havens

Assistant Editor

Carol A. Codori

Administrative Assistance

Alberta Tropf

Publishing Services

Editing Staff

Linda J. Kemp
Sharon Connolly
Gerard Burke
Eric Green

Graphics Staff

Sharon Ferguson
Denny McNeil
William Michael Spears
Richard Rockburn
Susan Walker
Eric Green

Printing Staff

Tom Kneeland
Kinney White

Distribution Staff

Ann Morton

Liaison Staff

Accounting and Financial Management Division

Paul Benoit

General Government Division

Anne M. Hilleary

General Services and Controller

Susan B. Burtner

Human Resources Division

Joseph Egli

Information Management and Technology Division

Kenneth Pollock

National Security and International Affairs Division

Nancy Holmes

Office of the Chief Economist

Louis Fernheimer

Office of the Comptroller General

Alberta Tropf

Office of the General Counsel

Robert W. Latham

Office of Internal Evaluation

David M. Glick

Office of Organization and Human Development

Don O'Sullivan

Office of Policy

Lucy Perholtz

Office of Program Planning

Daniel L. Johnson

Office of Quality Assurance

Michael Speer

Personnel

Lula A. Totaro

Program Evaluation and Methodology Division

Wallace Cohen

Resources, Community and Economic Development Division

Richard Hart

Atlanta

William Ball

Boston

Paul Slater, Jr.

Chicago

Stewart Herman

Cincinnati

Elmer Taylor

Dallas

Frank Bizzell

Denver

Pamela K. Tumler

Detroit

Randall Conley

Kansas City

Annett E. Brown

Los Angeles

Robert Brown

New York

Eric Johnson

Notre Dame

Melissa Van Tine

Philadelphia

Louis Rodriguez

San Francisco

Gerhard Brostrom

Seattle

Alvin S. Finegold

Washington

Dennis O'Connor

European Branch

Ralph Burnham

Far East Branch

Frank Etze

Latin America Branch

John Hogan



U.S. GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. GENERAL ACCOUNTING OFFICE



CONTROLLED CIRCULATION RATE



3GA0L000454089