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Nuclear Deterrence – A Short Primer for the Uninitiated

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Contents

From Our Briefcase

Accounting Update

This feature, originally entitled "Accounting News," will be a regular feature of "From Our Briefcase" in future issues.

GAO Establishes Conferences on Single Audit

GAO held two conferences on the single audit approach at the GAO Building in June and August 1982. These conferences provided the focus needed to address problems or issues and have considered means for making the single audit approach more effective. The conferences included representatives from both the public and private sector audit and user communities.

GAO's "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions" (the "Yellow Book")—discussed below in the section on audit standards—provides that when one government receives funds from several others and each has a continuing need for a basic financial and compliance audit, such audits should be made on an organization-wide or entity basis whenever feasible rather than on a grant-by-grant basis. The auditor reviews the internal controls of an entity instead of doing a detailed audit of each of its grants. This

single audit approach provides an improved audit base for performing additional selective audits to satisfy specific Federal, State, and local user needs. Selective audits may be needed for detailed compliance issues as well as to determine economy and efficiency or program results.

The single audit concept, however, is not yet a way of life in the governmental audit community. It is still evolving, and a number of problems remain to be resolved.

GAO has begun a study to develop data on the number of single audits performed to date, the cost, who is doing them, the nature of the entity being audited, and the problems encountered. Comparison will then be made with data from traditional audit coverage.

GAO Establishes Internal Control Project

GAO has established a project to improve understanding of government internal control standards. The project will help GAO carry out its responsibilities under the Accounting and Budget Act of 1950. Since passage of the act, GAO has published accounting and auditing standards for the Federal Government. Both sets of standards include extensive coverage of internal controls. The standards of internal control,

however, are contained in numerous other publications distributed over the last 30 years.

The project will refine and consolidate into a single document GAO's policies and standards for internal control. The result should be an important step toward achieving the objectives of proposed Federal Manager's Accountability Act of 1982, which is currently before the Congress. The objective of this legislation is to improve internal controls in the Federal Government by requiring agency heads to annually review and report on the adequacy of their internal controls. GAO is also consulting with several major public accounting firms to obtain their views on internal control standards.

Orientation on Audit Standards Planned for GAO Professional Staff

What are generally accepted government auditing standards? Why is it important to understand them? These questions will be answered in a 1-day audit standards orientation program to be given to GAO professional staff.

Generally accepted government auditing standards are set forth in GAO's *Standards for Audit of Governmental Organizations, Programs, Activities, and Functions,* better known as the "Yellow Book." The standards incorporate statements on auditing standards of the American Institute of Certified Public Accountants as well as additional standards and requirements to satisfy the unique needs of government.

The standards must be followed by all auditors—including those outside GAO—for audits for Federal organizations, programs, activities, functions, and funds. GAO reports must now carry a statement that the review was performed in accordance with the standards.

GAO issued the Yellow Book in 1972 and revised it in 1981. Examples of important revisions are requirements that the auditor must report on compliance and on internal control.

Governmental Accounting Standards Board Update

The Financial Accounting Foundation has appointed a committee to help implement the recommendations made by the Governmental Accounting Standards Board Organization Committee (GASBOC) in its October 1981 final report. GASBOC confined its recommendations to "relatively broad structural issues." It proposed that a Governmental Accounting Standards Board be established under the existing Financial Accounting Foundation to issue pronouncements on State and local government accounting standards. The implementation committee will help the Financial Accounting Foundation with its decisions on detailed operations, such as location, budget, and staffing. The Comptroller General is a member of the implementation committee.

For more information on the preceding sections of "Accounting Update," contact Bruce Michelson, (202) 275-6222.

Cost Accounting Standards Are Alive and Well

In 1980, the Cost Accounting Standards Board, after promulgating 19 standards covering virtually all aspects of contract costing, ceased its operation. GAO, in its oversight role of Government procurement, has always taken an active role to determine whether Federal agencies and defense contractors were complying with the cost accounting standards. After the Board's demise, GAO increased its efforts relating to these standards. For example, GAO recently reported (PLRD-82-51) that Federal agencies were effectively implementing the standards, although it did recommend that agency personnel receive additional training in this area.

To keep the dynamic world of contract costing current, many in the procurement field have recommended that a CAS maintenance function be established somewhere in the government. The Department of Defense contends, for example, that vital procurements might be jeopardized if Congress does not delegate the authority to exempt or waive certain defense contractors from the standards. Further, DOD and the defense industry have recommended the amendment or repeal of Standard 409, "Depreciation of Tangible Capital Assets." GAO is currently assessing the cost implications of this potential action. For more information, call Clark Adams in the Procurement, Logistics and Readiness Division, (202) 275-4262.

Intergovernmental Audit Forums

The Intergovernmental Audit Forums trace their beginnings to numerous discussions in the early 1970's on the need for better planning and cooperation among Federal, State, and local government audit organizations. In September 1972, a group of State auditors and representatives from the Council of State Governments met with then-Comptroller General Elmer Staats and with other officials from GAO and the Office of Management and Budget (OMB) to propose national and regional audit forums. Within the forums, problems of mutual concern to auditors at different levels of government could be discussed.

GAO provided leadership in the creation of the National and 10 Regional Intergovernmental Audit Forums—a regional forum for each of the 10 Federal regions. GAO's Accounting and Financial Management Division provides administrative support for all 11 forums.

The National Forum includes representatives from GAO, OMB, Treasury, and all principal grantmaking Federal agencies as well as 10 State and 10 local government representatives and observers from interested professional groups. The State and local government representatives are selected from the 10 regional forums.

The most recent meeting of the forums took place in Nashville, Tennessee, on May 10-12, 1982. About 200 people attended, including Federal Inspectors General, auditors and audit directors from Federal, State, and local governments, and representatives of CPA firms throughout the United States and Puerto Rico. The theme of this conference was "Governmental Auditing in the 1980's."

These auditors met to discuss and solve current issues that affect the audit community. A side benefit that resulted from the conference was that relationships among auditors from all levels of government were strengthened.

The conference's keynote address was given by Joseph R. Wright, Jr., Deputy Director, Office of Management and Budget. Subjects discussed in plenary sessions and workshops at the conference included block grants; single audits; financial management systems; fraud, abuse, and illegal acts; cash management; and improving the effectiveness of the audit forums.

Charles Bowsher, Comptroller General of the United States, sent correspondence to the conference participants since he was unable to attend. Mr. Bowsher noted that the Intergovernmental Audit Forums have played an important role in improving the auditing and overall financial accountability of Federal Government programs. He said that the audit forums have become a recognized body of governmental audit officials that can be depended on more and more for resolving problems in the complex areas relating to audit and that he looks forward to a continued spirit of cooperation with the forums. For more information, contact Joel Fields, (202) 275-5200.

New Federal Entities Created; Old Ones Abolished

Are you wondering what became of the Community Services Administration (CSA)? Are you searching for an expert to interview on aquaculture?

The annual list prepared by the Office of the Federal Register can provide some leads. Each January, the *Register* compiles a list of Federal agencies and commissions created or abolished by the President or the Congress. According to the January 1982 list, Congress abolished CSA and the Council on Wage and Price Stability and created the Aquaculture Advisory Board, the Community Investment Advisory Board, and the Soybean Research Advisory Insti-

On Location ———————

GAO's Frank Davis (r.) accepts the Excalibur Award from Congressman Mike Barnes.

GAO Outplacement Officer Wins Excalibur Award

In a Capitol Hill ceremony on June 8, 1982, Frank Davis, GAO's Outplacement Officer in the Office of Organization and Human Development, received the Congressional Excalibur Award for excellence in public service. He is the first GAOer to be so honored in the five occasions on which the award has been given. With the Comptroller General and other GAO officials, his co-workers, and Members of Congress looking on, Rep. Michael D. Barnes (D-Md.) presented Davis with an engraved plaque, citing him . . ."for services rendered to the United States Government and to its citizens. Your efforts provide an example of dedication and public service of the highest level that is truly inspirational."

Rep. Barnes established the award program in 1979 to emphasize the positive aspects of Government service. The objectives of the Excalibur Award are to

• recognize and honor outstand-

ing contributions made by Federal civilian and military personnel,

• encourage initiative and excellence in performance by Government employees,

• publicize such achievements and enhance public appreciation of the merit and performance of Government employees, and

• help attract talented persons to the Federal service.

Davis, who started at GAO 28 years ago as a GS-1 messenger, was honored for his accomplishments in assisting GAO's managers by providing outplacement service to GAO's employees.

In recommending Davis for the award, Comptroller General Bowsher said,

"He has successfully assisted on the average of 200 employees per year with career placement in both governmental agencies and private industry and has personally conducted counseling sessions with over 600 employees during the past few years."

In addition, his work has involved—on his own time and at personal expense—conducting numerous workshops on changing em-

ployment and career development to such diverse groups as the National Association of Accountants and Gallaudet College. Davis is very active in his church and community. An accomplished athlete, he participates in various sports programs and teaches and coaches sports for young people. Mr. Davis is also known for his poetry readings in the Baltimore-Washington metropolitan area. He devotes any spare time to reading in his professional field.
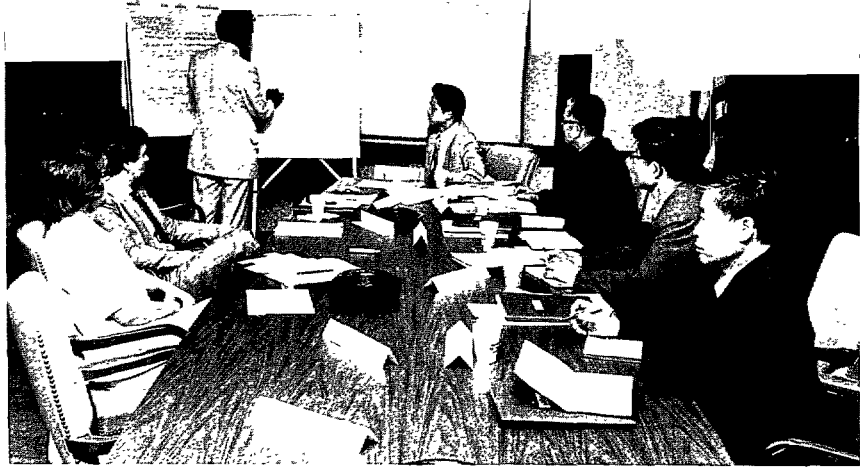
Seminar participants listen as Thomas McBride (standing), Inspector General of the Department of Labor, describes his role.

Chinese visitors pose in Comptroller General's conference room. From left, Xu Wenqing; Zhang Shengman; Elaine Orr, Office of Foreign Visitors Director,(OFV); Song Xinzhong; Carol Codori, Acting Special Assistant, OFV; Zhang Yansheng; Sheng Huandeh; and Assistant Comptroller General John Heller.

GAO Welcomes Officials from The People's Republic of China

A delegation of senior officials from The People's Republic of China visited GAO from May 17-28, 1982, to study the organization of GAO's audit function, its statutory authority, and the kind of work done. The participants were Mr. Song Xinzhong, Director, Budget Department, Ministry of Finance (delegation leader); Mr. Zhang Yansheng, Deputy Director, Supervisory Department, Ministry of Finance; Mr.

Sheng Huandeh, Accountant and Deputy Division Chief, Ministry of Finance; and Mr. Xu Wenqing, Deputy Division Chief, State Planning Commission. Mr. Zhang Shengman, an official of the Ministry of Finance who is currently on a 2-year assignment with the World Bank in Washington, served as the group's interpreter.

This recent interest in the U.S. audit system stems from the fact that, under its new constitution, The People's Republic of China is to establish a national government audit office. Mr. Song, the leader of the delegation, is charged with this responsibility.

The delegation participated in numerous briefings conducted by GAO senior staff in such areas as agricultural and rail activities, private enterprise audits, fraud-related work, and auditor training. They also toured Capitol Hill and met with Comptroller General Bowsher. On May 24, the group visited GAO's audit site at the District of Columbia government and heard presentations on how the city is audited by both GAO and a private accounting firm. From May 25-28, they visited the New York regional office, learning more about regional office operations and staffing. There they also had an opportunity to contrast their
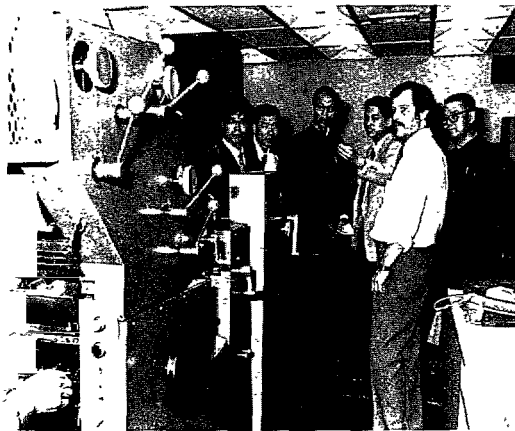
During a tour of GAO's publication facilities, Zhang Shengman (third from r.) interprets a step in GAO's report printing process while Bill Chapman, Manager of GAO's Document Production Branch, OAPS (front), and Chinese visitors look on.
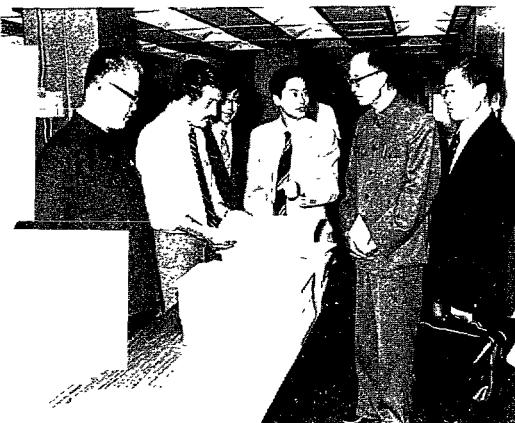
Zhang Shengman (third from r.) interprets as Bill Chapman (second from l.) displays printed pages ready for binding.

GAO and D.C. audit information with audit activities at offices of the New York City and State Comptrollers.

Many GAO staffers assisted with arrangements for briefings, tours, and social events. Those with a knowledge of Mandarin helped translate such documents as weekly agendas and briefing outlines.

Philadelphia Staffer Wins 1982 Outstanding Handicapped Federal Employee Award

Eva Ball, lead clerk-typist in the Philadelphia regional office, was GAO's nominee for the 1982 Outstanding Handicapped Federal Employee Award. In September 1982, GAO was notified that Ms. Ball was one of the 10 cowinners of this award, selected from a field of 67 nominees.

Eight years ago, at 19, Ball discovered she had malignant bone cancer in her right knee. At the Sloan-Kettering Cancer Institute in New York, she underwent chemotherapy and an 8-hour operation to replace her knee and thighbone with steel artificial bone.

Ms. Ball joined the Philadelphia regional office 3 years ago as a receptionist and was recently promoted to her present position as lead clerk-typist. According to regional manager Ralph Carlone, who nominated Eva for the Federal award, "her flawless and good-humored work as our receptionist is the more remarkable considering that she suffers pain in her leg more than half the time ... She is now responsible for

Philadelphia staffer Eva Ball.

training and supervising four clerk-typists and for training her replacement as receptionist. She will show them how to use new automated equipment and has been named administrative representative for the new electronic work stations."

"Disabled though she may be," Carlone's nomination concluded, "this young woman is more conscientious and industrious than many of her colleagues who are not physically impaired."

Eva and her nine cowinners received their awards in an October ceremony held at the Office of Personnel Management. We offer our congratulations on her award and our thanks for all her efforts.

Charles Wolfe: 47 Years, 6 Comptrollers General

Mr. Charles W. Wolfe, an evaluator in GAO's Washington regional office, has the distinction of being the only GAO employee to serve under all six Comptrollers General. Charles Bowsher, Comptroller General since 1981, met with Mr. Wolfe on May 13, 1982, to offer his personal congratulations. Stating that "This agency owes you a lot," Mr. Bowsher expressed his appreciation for Mr. Wolfe's 47-year career with GAO. The two then posed for photographs to mark the occasion.
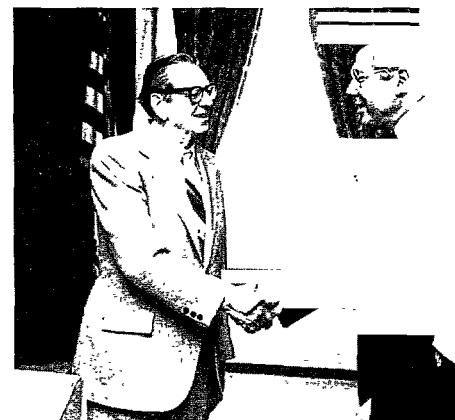
Charles Wolfe (l.) marks his 47-year career with GAO by meeting with the Comptroller General.

Charles Wolfe began his GAO career on April 29, 1932, as a GS-1 junior typist. At that time, GAO's offices were located in the Pension Building, across the street from the present GAO Building at 441 G Street, N.W. "It was the height of the Great Depression, and I couldn't find a job in Oklahoma," he remembers. "I passed the Government test and started with GAO in Washington at $1,200 a year—a princely sum in those days," he said with a chuckle. "Back when I started doing reports,

we didn't have any manuals at all. We didn't have referencing, editing, agency comments, draft reports, workpapers, or reviews. We just did the job and typed the report in final."

He shares an anecdote from his long career: "In 1938 in the Boston regional office, two of us had just finished a 3-week job inspecting 10 collection accounts. Those inspections were the forerunners of today's financial compliance audits. Well, we had finished the final 10 reports, 10 pages each, and we left them on the windowsill to wait for signatures. The supervisor came in and said, 'Don't you think it's hot in here?' He opened the window, and at that moment, the strongest gust of wind that ever hit Boston came along and blew all 100 pages out the window! We raced down the street and caught some of the papers, but we didn't get all of them. In the end, we had to do some of the jobs over. When I finished typing *those* reports, I put them inside my desk!"

We join with Mr. Bowsher in congratulating Charles Wolfe on this remarkable career.

Public and Private Sectors Meet To Tackle Delinquent Debts

On February 24 and 25, 1982, over 600 representatives of Government and industry met at a 2-day conference in Washington, D.C., to discuss ways in which industry can help the Government cope with its debt collection problems.

GAO sponsored the conference under the stewardship of the Accounting and Financial Management Division's Claims Group. At the start of fiscal year 1982, individuals and organizations owed the Government more than $180 billion—a 45 percent increase since 1980. About $33 billion of these debts were delinquent, and agencies have been writing off as uncollectible more than $1 billion annually.

In recent years, GAO has been advocating that Government agencies adopt private industry practices, such as fully using the services of commercial credit bureaus and collection agencies, as one way of increasing the collection of overdue debts. In April 1981, the President
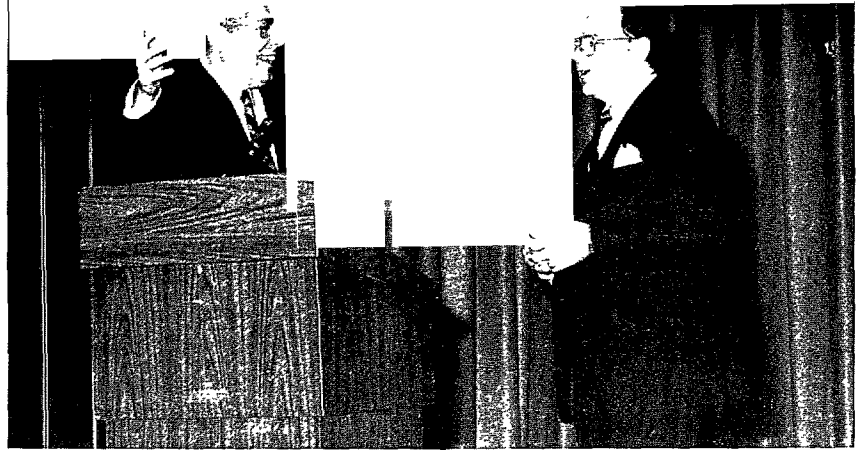
Comptroller General Bowsher introduced Edwin Harper, then Deputy Director of OMB, to the conference. Mr. Harper was recently appointed Assistant to the President for Policy Development.

directed agencies to take a more aggressive stance in collecting money due the Federal Government. Around the same time, GAO and the Department of Justice completed a revision of the Federal Claims Collection Standard, which encourages Federal agencies to contract for help in collecting overdue debts.

Keynote speakers at the conference included Senator Charles H. Percy, Comptroller General Charles A. Bowsher, Office of Management and Budget Deputy Director Edwin L. Harper (now Assistant to the President for Policy Development), and Acting Director of GAO's Accounting and Financial Management Division, Wilbur Campbell. Jerry F. Wilburn, Claims Group, organized and chaired the event.

A conference objective was to educate Government and industry representatives on each other's capabilities, requirements, and concerns. Panel discussions and workshops involving over 50 Government
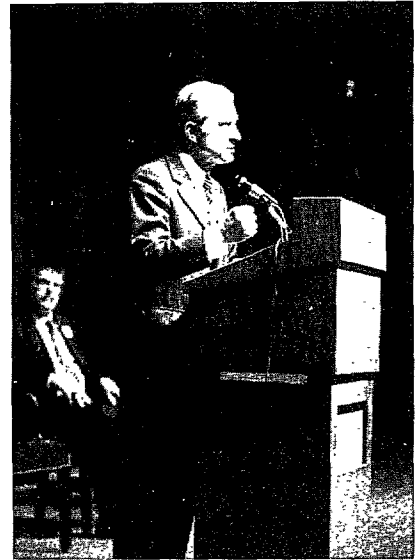
Senator Charles Percy was the keynote speaker for the 2-day event. GAO staff have worked with the Senator's staff since 1979, proposing most of the key provisions of the Senator's comprehensive debt collection legislation.
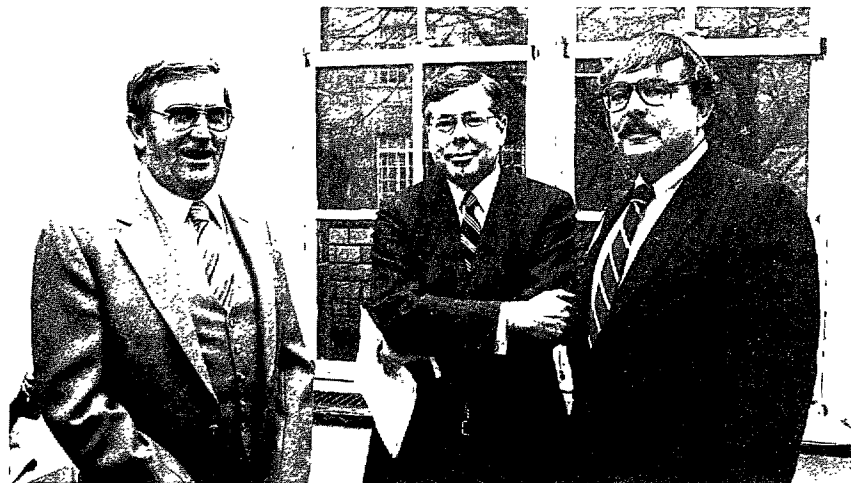
AFMD acting director W.D. Campbell (l.) and conference chairman Jerry Wilburn, also from AFMD (r.), pause with Comptroller General Bowsher during the conference.

and industry experts focused on (1) actions Government agencies are taking to improve debt collection, (2) legal constraints, such as the Privacy Act and restrictions on using data obtained from the Internal Revenue Service, (3) the Canadian Government's experience in using private debt collection services, (4) Government contracting procedures, and (5) services available from the private sector. Over 20 private firms contributed trade exhibits showing their services available to Federal agencies, and conference attendees were able to tour the facilities of several firms and Government agencies.

Congressional aides were close observers of the proceedings since some 15 bills have been introduced in the current Congress, each prompted by concern over the Government's mounting delinquency problem. GAO has been actively supporting much of the pending legislation which will give Government agencies additional tools they need to deal with the problem.

As an outgrowth of GAO's involvement, an association of Federal collection officials is forming and will meet informally to share experiences much like its counterparts do in industry. One of the group's goals is to increase the stature of those officials who are responsible for such a sizable and ever-increasing share of Federal funds so that the repayment of Government monies receives the attention it deserves.

Field Office Division Holds Annual Meeting

Regional office managers met at GAO's Management Development Center in Georgetown on May 17-24, 1982, to discuss regional office operations. GAO's foreign branch managers also were invited. Mr. Bowsher and Messrs. Socolar, Heller, and Havens—top Comptroller General staff—joined the group on May 17. During the week, attendees heard presentations on the status of the personnel systems development project, electronic work stations, and ongoing training.

During the break, Vic Lowe, director, Far Eastern Branch/Honolulu, and Carol Codori, *GAO Review* assistant editor, discussed "centerfold policies" for a profile on FEB,

Vic Lowe and Carol Codori examine an issue of the *GAO Review.*

scheduled to appear in the Winter issue of the *Review.* Editor John Heller advised his former boss that centerfolds are taboo!

Comptroller General's Consultant Panel Meets

On May 18 and 19, 1982, the first Comptroller General's Consultant Panel headed by Mr. Bowsher met at the General Accounting Office. The Consultant Panel is a source of outside advice and support for many of

the Office's initiatives.

New additions to the panel included Theodore C. Barreaux, American Institute of Certified Public Accountants, Washington, D.C.; James Bruce Cardwell, Blue Cross/Blue Shield Association, Chicago; James J. Macdonell, Chairman, Canadian Comprehensive Auditing Foundation, Ottawa, Ontario; Vice Admiral Raymond E. Peet, USN (Ret.), Teledyne Ryan Aeronautical, San Diego; and Donald A. Petrie, Lazard Freres & Co., New York City.

Topics discussed during the meeting pertained to GAO's involvement in the budget process through assistance to Congress, the development of a new personnel system for GAO, and individual department and agency reviews.

International Auditor Fellows Attend 1982 GAO Program

GAO once again welcomed a group of auditors—15 of GAO's international counterparts—to its 4th International Auditor Fellowship Program. The July-October program gave participants an overview of GAO's work and specialized training in auditing techniques.

The participants, or Fellows, attended numerous classes, briefings, and tours and spent time with GAO audit site and regional office staff.

Joao Domingos Wolff Da Silva and Yvonne MacDonald, evaluator, HRD (foreground) and Thomas Mbelu and Frank Conahan, director, ID (background) chat during BIG reception.

Front row, l. to r.: Srisuda Achavanuntakol, guest student, Thailand; Joao Domingos Wolff Da Silva, Brazil; Boobpha Anuntawat, Thailand; Ali Mohammed Abdullah Qassem, United Arab Emirates; Joseph G.Tabone Adami, Malta; Javaid Akhtar Sheikh,Pakistan. Middle row, l. to r.: Ray Wyrsch, guest instructor, OGC; Sung-Dae Ro, Korea; Felicitas C. Ona, Philippines; D.G. Pathirana, Sri Lanka; Lee Eng Bok, Singapore; Thomas Mbelu, Swaziland; Samuel Maluki, Kenya; Argimiro Alonso Fernandez, Spain. Back row, l. to r.: Harry Ostrow, head instructor, PLRD; Hassan N'Dogal Sowe, Gambia; Moussa Taujoo, Mauritius; Jose Luis Alfaro Sanchez, Mexico.

Fellows were assigned sponsors who helped them become acquainted with life in Washington, D.C., and at GAO.

During the program, the Fellows also were entertained by several groups, including the Blacks in Government (BIG) chapter at GAO, which hosted a welcoming reception on August 4, 1982, in the Comptroller General's dining room. In addition, the Fellows, a guest student, and GAO instructors worked together from August 9-13, 1982, to complete an intensive Operational Auditing course, especially tailored to the Fellows' interests and needs.

Mr. Bowsher, Hazel Cooke, Ozell Simmons, and Ryan Yuille listen as Aletha Brown (far left) welcomes Fellows to GAO during BIG reception.
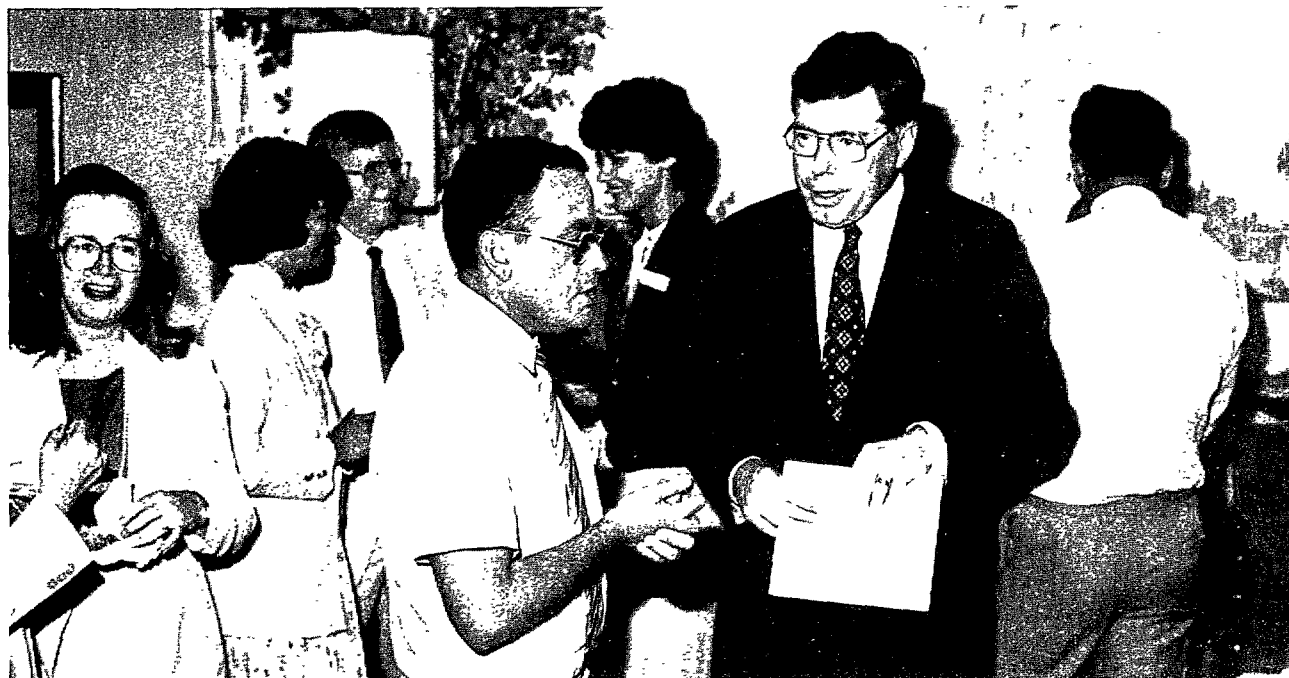
Joseph G. Tabone Adami, left, discusses an issue with Mr. Bowsher during BIG reception.

Manager's Corner _____

"Manager's Corner" provides information on current management theory and practice. Its purpose is to expand the knowledge and skills of GAO executives by increasing their awareness of management problems and achievements.

For this edition of "Manager's Corner," several members of the Senior Executive Service read articles on motivation and wrote summaries.

Because productivity seems to be slowing and because of changes in the working population, motivating employees has become a more complex task than in the past. The following articles explore these complexities both in the public and private sectors.

For full citations, see bibliography on motivation at end of article.

*"Employee Recognition: A Key to Motivation." By Margaret Magnus. Reviewed by William D. Martin, Jr.

Every level of management in every employment sector is faced with two primary issues: Why is productivity so low? How can productivity be enhanced? A related question is how can management increase employee satisfaction and increase productivity? The author responds to these questions with a solution which can work in many cases: "Properly run recognition programs can boost awareness of the organization, build employee pride, raise morale and, ultimately, increase productivity." The point is made that raising a person's salary is not always the best answer. Even though such an action is appreciated, everyone's pride is boosted by a public demonstration of appreciation.

Once employee recognition programs are established, however, they cannot remain static. Organizations must continually create different ways to recognize and reward employees. In so doing, job enrichment and job development, along with performance appraisal, cannot be overlooked as part of the recognition program.

The author has constructed the article around comments made by numerous executives from a wide range of private sector organizations. This technique adds to the understanding of why recognition programs are important and what they hope to achieve. A distillation of these comments probably best sums up the overall message of this article: Recognition programs single out individual achievements; it is the meaning that is attached to an award that is important; the program needs continuity; awards should be equitable; and, "the key factors in a job are the sense of responsibility, the desire for a sense of purpose, and recognition for a job well done."

*"Creating a Climate for Achievement." By Burt K. Scanlan. Reviewed by R.J. Woods.

Research studies show that the average employee works at only two-thirds of capacity, and some work at only 20 to 30 percent. Professor Scanlan suggests that managers create a "climate of achievement" which will inspire people to achieve above these levels. This, he says, requires an understanding of (1) the characteristics of people who are high achievers, (2) the role the manager plays in the achievement motivation process, and (3) some of the operational aspects of achievement motivation.

Four necessities for a "climate of achievement" are
• explicit goals,
• feedback to employees and positive reinforcement,
• emphasis on individual responsibility, and
• rewards based on results.

Managers' awareness of the concept of achievement motivation and continual analysis of the climate within their organizations can help assure the realization of maximum potential from human resources.

*"Constraints to Effective Motivation." By John Nirenberg. Reviewed by W.D. Campbell.

The author maintains that understanding the principles of motivation is not enough. Managers must look at the organization and at their own managerial style to recognize existing barriers to effective motivation.

The article lists four frequently found constraints:
• supervisory attitude of superiority,
• organizational message of productivity treadmill,
• supervisory bias toward staff, and
• environmental factors perceived as demeaning.

The author maintains that an assessment of current constraints is essential to any proposed motivational program to ensure success.

*"Ungluing the Stuck: Motivating Performance and Productivity Through Expanding Opportunity." By Kanter and Stein. Reviewed by William J. Anderson.

The July 1981 issue of *Management Review* contained an article that provides additional evidence, if any was needed, to support the thesis that motivation and productivity problems are not all that unusual. The authors identify three situations that can put employees into "a nonproductive and nonsatisfying rut." These are, to use the authors' terms, short-ladder jobs, the wrong route in, and the pyramid squeeze.

"Short-ladder" jobs are those which peak out early in a worker's career. The authors hold, not unreasonably, that in the absence of opportunity for further advancement, short-ladder jobs do not provide incentive for people to try to perform better or to master new tasks.

The "wrong route in" describes situations where people are in an unorthodox career path. Here the authors are referring to employees who advance in a specialty field supporting the organization's mainstream activities. The problem here is that the specialists' opportunities peak out earlier than those in the mainstream, while at the same time it is extremely difficult for the high-level specialist to cross over to another, more promising ladder in line operations.

The last kind of rut is what the authors call the "pyramid squeeze." Given the hierarchical pyramidal structure of most organizations, it follows, inevitably, that there is limited room at the top and that most

employees reach a wall in their progression through the organization. The pyramid squeeze is aggravated when the organization is static and lacks the opportunities provided by expansion.

From this article, I concluded that the most important concept is the need for managers at all levels to recognize that people want to grow and want to advance. They do not want to feel that they have stagnated and that management has written off the prospect of further expanding an employee's contribution to the organization. GAO managers need to realize that nearly all of our employees have a capacity and a desire for career growth, and managers should do what they can to provide a helping hand in this quest.

•"Differentiating Organization Commitment from Expectancy as a Motivating Force." By Richard W. Scholl. Reviewed by William Thurman.

This article addresses an issue of extreme importance to the stability of any public organization. It explores the concept of employee commitment and argues that if commitment is viewed as a force distinct from generally accepted motivation models, it can help explain employee behaviors which are different from those which would be predicted based on equity theory and expectancy theory.

Equity theory predicts that employees will compare their work contributions and rewards to those of their peers and that an employee will remain with an organization and continue to perform well so long as there is a reasonable balance between their contributions and rewards with those of others. Expectancy theory predicts that individuals will engage in behaviors they perceive will eventually lead to valuable rewards. Using a combined expectancy/equity model, one would expect individuals to leave an organization if their expectations of receiving equitable and valued rewards are not met. But empirical studies have shown this model to be incomplete in explaining organizational stability, in that individuals remain even though their expectations are not met.

Scholl argues that an alternate explanation of organizational stability

lies in the concept of commitment and that commitment acts as a force to maintain organizational stability even when expectancy/equity conditions are not met and do not function. He identifies four different mechanisms which contribute to the commitment process:

• Investments—Individual investments, such things as age and tenure, can tie the individual to an organization.

• Reciprocity—The tendency to leave will be reduced if leaving would harm an employee who has helped the individual in one way or another.

• Alternatives—As experiences become more specific to a particular organization, the ability to leave decreases.

• Identification—Work is a major source of status and identity for many individuals. As identity and status become embedded, it becomes more difficult to leave.

Thus, personal loyalties, length of service, and status are all factors which commit individuals to an organization.

Motivation

Baker, H. Kent and Stevan R. Holmberg. "Stepping Up to Supervision: Building an Effective Work Group." *Supervisory Management,* 27, No. 2 (February 1982), 21-26.

Emmett, Robert. "Productivity Improvement and the Human Factor." *Personnel Journal,* 60, No. 8 (August 1981), 610-611.

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From The Editor

In the past year, the GAO Review *lost two of its key staff members, Art LaMay and Hannah Fein. We'd like to acknowledge their contributions to the magazine by presenting these short profiles:*

Art LaMay

Art LaMay, head of GAO's Graphics Branch and the graphics chief for the *GAO Review,* left the agency on August 27, 1982, to pursue a full-time, freelance art career.

Art joined GAO 11 years ago as an illustrator and served as the Graphics Branch manager for the past 5 years. During his tenure as manager, Art expanded the branch by establishing GAO's in-house darkroom, staffed by a full-time photographer; by upgrading existing graphics equipment and installing new pieces; and by implementing the Graphics cooperative education program, which allows art students to work at

Hannah Fein

GAO for college credit. (For the past 2 years, GAO has won an award from Northern Virginia Community College for the agency's dedication to the co-op program). During his GAO career, Art received several agency awards, including the Director's Award from the Office of Publishing Services.

Art LaMay is a talented wildlife artist with a national reputation for his paintings of wildfowl. He generally paints in watercolors, although he has worked with oils and several other media. Art has also judged the World Championship of Wildfowl Art and Carving and actively exhibits his work at selected galleries and competitions on the East Coast. Owners of Art LaMay's paintings include actresses Elizabeth Taylor and Amanda Blake; former governors John Connally (Texas) and Marvin Mandel (Maryland); Al Davis, owner of the Oakland Raiders; and Bert Jones, quarterback for the Los Angeles Rams.

Art and his wife Bonnie will spend the next few months in Rehoboth Beach, Delaware, and will make a permanent move to Daytona Beach, Florida, in March 1983.

We would also like to note the departure of Hannah Fein, the *Review's* Assistant Editor. Hannah, who was with GAO for 7 years, will be doing freelance work for the *Review,* the *Annual Report,* and other GAO publications.

During her career, Hannah helped launch the comprehensive GAO writing program, including the POWER course. As a writer/editor, she worked to promote the involvement of writer/editors in the early stages of report writing. While Assistant Editor, Hannah inaugurated a new *Review* series entitled, "A Different Perspective: Intergovernmental Auditing and Evaluation," which provides State and local perspectives of auditing roles and functions. She also took the lead in preparing the readership survey published in the Summer 1982 *GAO Review.*

The *Review* staff would like to thank Art LaMay and Hannah Fein for their service to the magazine, and we wish them every success in their new careers.

Topics in Evaluation

Carl E. Wisler

Mr. Wisler is an associate director in the Institute for Program Evaluation.
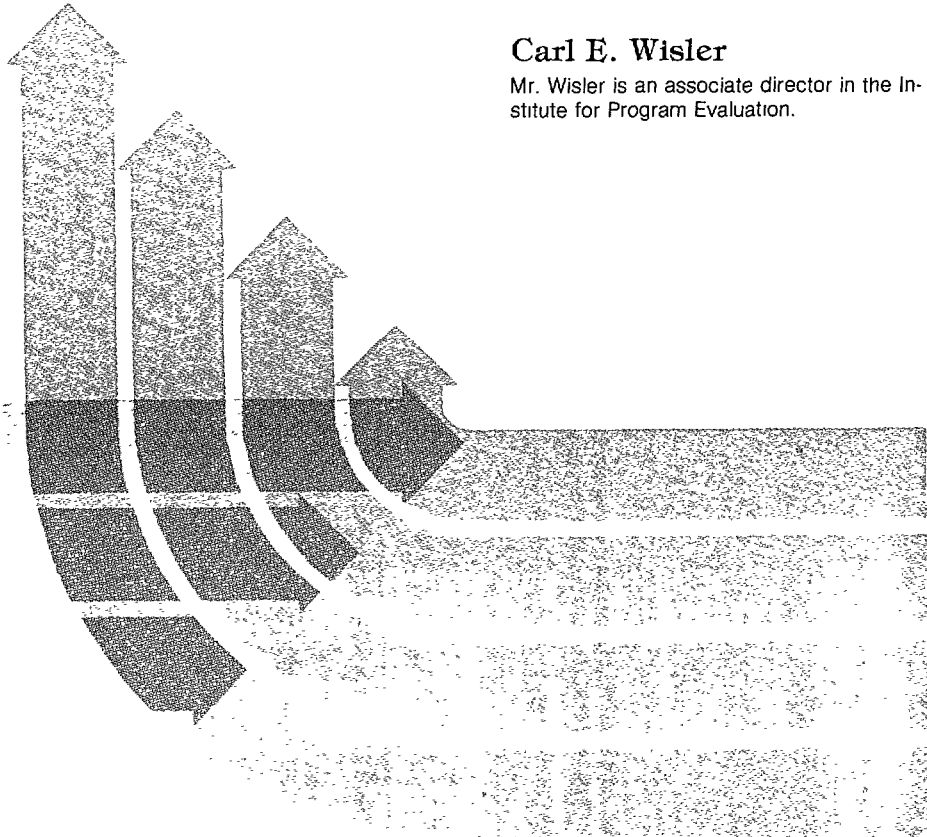
This issue's topic is *Statistics for Evaluation.*

The science of statistics provides ways of summarizing information and drawing inferences about phenomena when we have only partial information. Both descriptive summarization and inferential reasoning make statistical analysis an important, if not indispensable, component of evaluation when the phenomena are government programs and activities.

An evaluator, like anyone who deals with empirical data, needs a set of tools for analyzing these phenomena. And statistics are among the most common tools in the evaluator's kit. Because a statistic is simply a quantity calculated from observations, one can easily learn how to compute many different kinds of statistics. But learning their proper and fair use proves difficult. That difficulty may be what gave rise to

Disraeli's famous observation, "There are three kinds of lies: lies, damned lies, and statistics."

Given the importance of statistics to evaluation and being mindful lest we mislead either ourselves or others, evaluators need to be quite conversant with statistical tools. An inventory of some of the most frequently used tools may serve as an introduction or refresher for evaluators who are not statisticians by training. This inventory has three parts: descriptive statistics, inferential statistics, and techniques for exploratory data analysis. The accompanying table gives some examples of statistics for each of these categories.

Descriptive Statistics

An evaluation produces a set of observations. To the extent that the observations are quantitative, descriptive statistics can be used to

summarize and understand an otherwise incomprehensibly large amount of information.

To illustrate, consider a long list of numbers—say the dollar amounts of a thousand Medicare reimbursements. To interpret such a list, one needs to know how big (or small) the numbers *tend* to be. The group of statistics called measures of central tendency are designed to provide just such help. The most commonly used statistic from this group is the *mean,* but other familiar indicators are the *median* and the *mode.* (The median is that value which is greater than half the numbers in the list. The mode is the most frequently appearing number in the list.)

In addition to the central tendency of a list of numbers, one needs to know how much dispersion exists among the numbers. Another group of statistics serves that purpose: the *variance,* the *standard deviation,* the *range,* and others. (The variance is determined by computing the difference between the mean and each number in the list, squaring the difference, and then averaging the squared differences. The standard deviation is the square root of the variance. The range is the difference between the largest and smallest numbers on the list.)

Despite their value in describing government programs and activities, measures of central tendency and dispersion do not answer questions about the relationship between two variables. For example, if we want to know how Medicare reimbursements relate to claimants' incomes, we need a different kind of statistic, one which indicates the degree to which variation in one measure corresponds to variation in the other. The most common statistic of this kind is *Pearson's product-moment correlation coefficient,* but there are many other measures of association, including the *covariance* and the *regression coefficient.*

Had Disraeli not spoken about lies and statistics long before the invention of regression analysis, one might suppose that the British statesman had regression coefficients in mind. Too many researchers have implied, either directly or implicitly, that regression coefficients measure the extent to which one variable *causes* another. In this way, one might find a regression coefficient relating Medicare reimbursements and claimants' income introduced as evidence to argue that income at least partially determines reimbursements. With regression analysis as it is usually employed, such an argument is indefensible. Regression analysis, however, is a general purpose tool. In conjunction with particular evaluation designs or with carefully formulated questions,[1] the resulting regression coefficients can be used to draw conclusions about causality. The point is that if statistical tools are applied inappropriately, they produce information worse than damned lies.

Until now, we have assumed that the observations to be summarized represent a continuous variable, i.e., a variable which, in theory, can take on all possible values in a given interval. Although, strictly speaking, dollars paid out in Medicare reimbursements are not a continuous variable, they can be regarded as one. When the observations fall into several categories rather than along a continuous dimension, we need different statistical tools. Suppose, for example, that the observations only tell whether a reimbursement is less or greater than $350. Statistics of interest are then the proportion of reimbursements in the two categories. Such statistics are easily extended to more than two categories.

Evaluative questions often involve comparing two or more groups of observations. Usually, the groups will be compared on measures of central tendency, proportions, or measures of dispersion. Imagine a hypothetical situation where claims for Medicare reimbursement can be processed in two distinctly different ways. To see if reimbursement under one procedure tended to be higher than under the other, one could compare simple statistics like the mean reimbursements under each procedure. For reasons beyond the scope of this article, comparisons between simple descriptive statistics, such as the mean and variance, usually have limited value in evaluations. Comparisons are more likely to be made between "adjusted" means.

Inferential Statistics

So far we have been concerned about statistics that summarize a set of observations where all participants in a group have been observed. Frequently, our goal is more ambitious. Often, our observations are but a sample from a much larger set of possible observations. The thousand Medicare reimbursements might be a sample from among all 100,000 reimbursements (the population) made in a given time period. Under these circumstances, one typically seeks a measure of the central tendency among the 100,000 numbers, using only our sample of 1,000 or some other sample. This measure, called a population estimate, introduces the field of inferential statistics.

The basic idea is to use a sample from a population to draw conclusions about that population. In the Medicare example, we could, in principle, observe each of the 100,000 reimbursements and exactly determine the population mean. But that probably would be expensive and produce an unnecessarily precise answer. Using a sample is better, provided that we (1) draw a sample[2] in a way which will allow us to use established principles of statistical inference, and (2) accept uncertainty about the true value of the population mean. Usually these requirements are a small price to pay in exchange for the dollar savings from making fewer observations.

With appropriately drawn sample observations, one can compute statistics to estimate the central tendency, dispersion, and other information about populations or groups of populations. There are two broad categories of population estimates: point estimates and interval estimates. Point estimates are our "best guess" of the population measure we are interested in. For example, the mean of our Medicare sample might be taken as the best guess of the mean of the population. Almost surely, however, the sample mean will not equal the population mean because of the vagaries of sampling. Consequently, evaluators

[1]See, for example, IPE's Methodology Transfer Paper #1, where regression analysis plays a deliberately stipulated role in the causal analysis of nonexperimental data.

[2]A discussion of sampling, though obviously linked closely to statistical estimates, is outside the scope of this article

want an interval estimate as well. An interval estimate says that the population mean lies somewhere between two numbers, say $323 and $348, with a certain probability. The interval estimate allows us to be precise (the probability) about our uncertainty (the interval within which the mean falls), while the point estimate gives no clue about the degree of uncertainty.

After point and interval estimates, a third kind of tool used in inferential statistics is the test statistic. This group of statistics helps settle various propositions about a population based only on information about a sample from the population. For example, is the sample data compatible with the proposition that the mean of the 100,000 Medicare reimbursements is $340? Or is the sample data compatible with the proposition that, in the population, the correlation between reimbursements and income is zero? Test statistics provide a way to examine these kinds of questions.

Test statistics are also used to examine those questions, so common to evaluation, about differences between groups of observations. The earlier example of making Medicare reimbursements by two different procedures illustrates this point. Suppose that we have appropriate samples of reimbursements using each procedure. Comparing sample means, should we infer that the population mean reimbursements resulting from the two procedures are different? Putting aside the questions of how to design an evaluation to examine this proposition, the statistical task in this case boils down to computing a particular test statistic—the t-statistic. Although the sample means almost always differ, that alone does not mean the procedures yield different results. Nevertheless, knowing the t-statistic helps decide whether a sample difference is due to sampling fluctuations or to real differences between the two reimbursement procedures.

A wide variety of test statistics applies to different evaluation designs and conditions. Among the most common are an F test for the differences between means, a Z test for the possibility that a correlation coefficient is different from zero, and a chi-square test of the relationship between two categorical variables.

Exploratory Data Analysis

Exploratory data analysis refers to both a state of mind and a collection of techniques. Traditionally, statistical analysis has stressed precision and formalisms, emphasizing rigorous statistical tests to confirm or reject propositions about observations. Explortaory data analysis (EDA) assumes that formal statistical analysis can often prevent our understanding the data.

To avoid the constraints of statistical formalisms, proponents of EDA have developed their own techniques for dealing with data. Because these techniques have an investigative or searching flavor to them, EDA may be especially suitable for certain kinds of evaluations.

Many EDA techniques are visual, and almost all are best explained using real data to illustrate the ideas. Due to space limitations, we shall limit our examples to two.

A box-and-whisker plot is a picture of the central tendency and dispersion of observations on a single variable like Medicare reimbursements.

The vertical line within the box represents the location of the median for a set of observations. Half of all observations are within the box; one-fourth between the median and the left side of the box and one-fourth between the median and the right side. The width of the box is called the midspread. The X's mark those observations which are most distant from either end of the box but within one midspread of the ends. The dotted lines connecting the X's to the box are known as whiskers. Any observations beyond the X's are marked as individual circles. Aside from the simple pictorial summary which it provides, analysts like the box-and-whisker plot because the median and the midspread are less affected by extreme-valued observations than are the more traditional measures of mean and standard deviation.

Procedures for dealing with ex-

tremely large or small observations are common in EDA. Such observations are a problem because one or two extreme values in a sample can drastically affect statistical analysis using traditional statistics such as the standard deviation. EDA prefers statistics which are resistant to extreme values. An example of a resistant statistic used in EDA is the "trimmed mean" or the mean of the observations remaining after a fixed percentage of the largest and smallest values are dropped.

John Tukey, a prominent statistician, has characterized exploratory data analysis as numerical and graphical detective work. In that spirit, EDA techniques belong in the evaluator's tool kit.

Calculating Statistics

If the number of observations is not too large, some statistics are easily figured out by hand or with a calculator. Often, however, computers are the best recourse. Several standard statistical packages compute all the traditional statistics. These packages of computer programs include SPSS, SAS, and BMDP. In a much more limited way, EDA techniques are also available in these packages (e.g., box-and-whisker plots and stem-and-leaf displays in SPSS, trimmed mean and Winsorized mean in BMDP).

For More Information

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A most useful map of the statistical territory.

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Exceptionally detailed instructions on how to calculate statistics often used in evaluation.

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A brief introduction to EDA.

Nuclear Deterrence – A Short Primer For the Uninitiated

Robert P. Kissel, Jr.

Mr. Kissel is currently an evaluator in the Cincinnati regional office He joined GAO in 1973 and received his B.S degree from Xavier University. Also, he has done graduate work in international relations at the University of Cincinnati.

"Anyone who enters the world of nuclear weaponry and warfare strategy enters a Hades that is filled with more mystery and horror than any realm of perdition ever envisioned by the poet Dante. In that dark circle of damnation, one can hear the clap of atoms, see the vaporization of the atmosphere and the instant incineration of millions of people. Megatons, kilotons, hard target kill capability, circular errors of probability—this is all the phantasmagoria of men gone mad."

Senator William S. Cohen, 1980

One of the most important and sensitive issues confronting the world today is the continuing buildup and potential use of nuclear weapons. The resulting debate is usually emotional and occurs ever more frequently around the globe. Never before has so much information been available to the public concerning the potential use and destructive power of nuclear weapons. Nevertheless, nuclear warfare remains an increasingly complicated issue.

Whether or not "this is all the phantasmagoria of men gone mad,"

Robert D. Murphy

Mr. Murphy is the auditor-in-charge of the Dayton, Ohio, suboffice. He joined GAO in 1964 after receiving a B.S degree from Eastern Kentucky University and has done graduate work at Xavier University in Cincinnati, Ohio. He is a CPA (Ohio) and a member of the American Institute of Certified Public Accountants. In 1981, he attended the Dartmouth Institute and received the Meritorious Service Award

the strategies and war-gaming are the perceptions of reality of those who plan for and control nuclear weapons. The United States, the Soviet Union, and a growing number of other countries have both nuclear weapons and policies controlling their use. Every year the United States spends a portion of the defense budget on nuclear weapons that it hopes it will never have to use. And each year GAO audits and reports on the ability of these weapons to meet DOD's objectives.

Determining the objectives of U.S. nuclear weapons policy can be tortuous and confusing. Recently, apparent conflicts between the public statements of nuclear policy and operational capability of United States strategic weapons prompted a GAO review of the strategic mission area. Our review explored U.S. objectives and policy as perceived by those who make the decisions. The article presents some insight into the policies and objectives.

Nuclear warfare remains a topic

Elmer Taylor, Jr.

Mr Taylor is an assistant regional manager in the Cincinnati regional office. He joined the General Accounting Office in 1957 after receiving a B S degree in accounting from the University of Kentucky. He is a CPA (Ohio) and a member of the Association of Government Accountants and the Federal Executive Board He has had extensive experience in reviewing Air Force weapon programs and served, on two occasions, with the Surveys and Investigations Staff of the House Appropriations Committee on defense matters In 1980, he received the Division Director's Award from the Procurement and Systems Acquisition Division (now the Mission Analysis and Systems Acquisition Division.

for debate because, so far, there hasn't been a nuclear war. Although many speculate on why nuclear war has not yet occurred, no one knows for sure. Short of war, the wide range of assumptions and conclusions cannot be tested or assailed by contradictory facts. One hopes, therefore, that the debate might continue.

We do not intend to enter the debate or to test any particular set of assumptions or conclusions. We will simply provide a primer on (1) the objective of our nuclear strategy, (2) the factors that become important because of the objective, (3) the evolution of the U.S. approach to meeting this objective, and (4) the implications of recent developments on weapon procurement.

Deterrence—The Rules of the Game

Since World War II, U.S. policy has sought to prevent a nuclear war by convincing potential enemies not to start one. This objective, commonly called deterrence, is actually quite complex. While nuclear weapons are obvious factors, other, more subtle factors may be more important.

While reason, good will, and morality may convince a potential enemy not to attack, the price of failure requires additional assurance. The United States, therefore, deters attack by creating fear of retaliation. Successive administrations have sought to convince potential enemies that, if attacked, we would so retaliate that either the attacker would fail or would suffer so much damage that he would gain nothing from his efforts.

In deterring potential adversaries, perceptions are often more important than actual capabilities. A nuclear missile that will not fire remains a deterrent as long as the adversary thinks it will work. A decision to attack the United States would depend upon the attacker's perception of our intentions and weapons capability, not upon *our* assessment. Our capabilities, and our will to use them, must be obvious lest a potential enemy's miscalculation forces us to demonstrate them.

The strongest deterrent available may be uncertainty. Despite extensive testing, exhaustive analysis, and endless computer modeling, no one knows what would happen if the complex interaction of offensive and defensive weapons were to be set in motion. While the United States and the Soviet Union talk about the general conditions that might cause them to use nuclear weapons, they never precisely define those conditions or specify their actions.

For example, no one knows precisely what deters the Soviet Union. Opinions range from the view that they would never use nuclear weapons to the belief that they will use them as soon as they think they can get away with it. While U.S. deterrence has worked until now, we still do not know how much more—or less—will be needed in the future.

Deterring the Soviets entails inducing the proper blend of under-
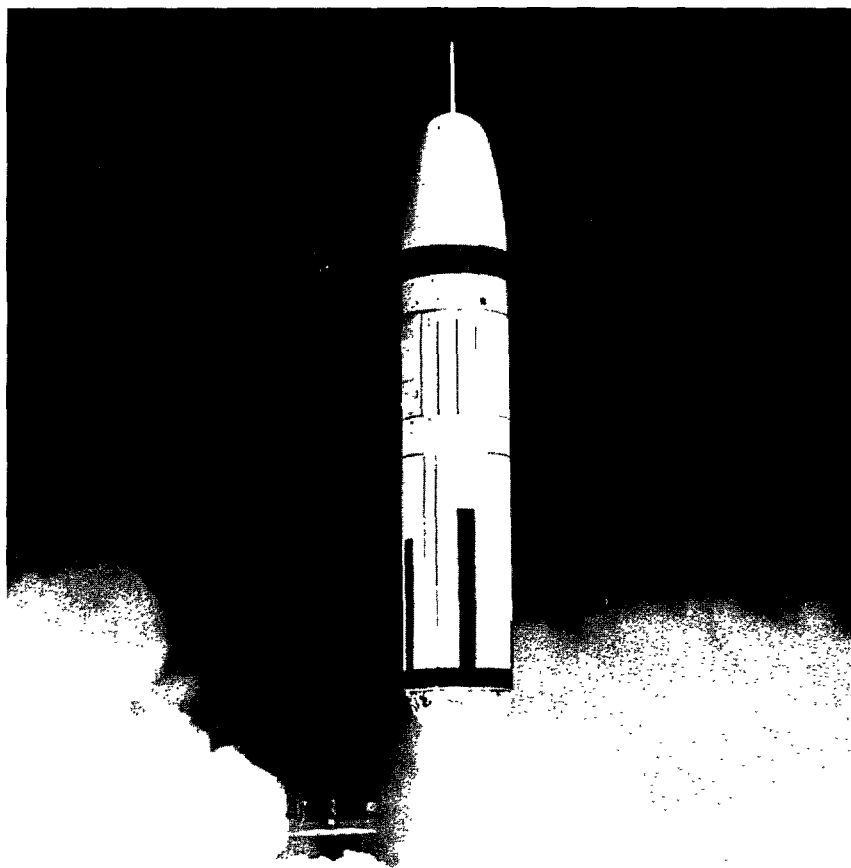
The Trident—a submarine-launched ballistic missile.

standing and uncertainty. Policy statements broadly define the circumstances under which we might use nuclear weapons. Soviet perceptions depend on whether they think our nuclear and conventional weapons can back it up.

Although deterrence focuses on nuclear weapons, one can enter the escalator that leads to nuclear war at any level. Hence, weaknesses in U.S. conventional forces could encourage the Soviets to try to exploit a situation where they feel we cannot or will not prevent it.

Finally, awareness of the potential for nuclear war permeates our relationships with all other nations. The perceived status of the nuclear balance and the perceived outcome of a nuclear war constitute the bottom line whenever U.S. and Soviet interests conflict. Friends and allies who rely on our nuclear capability to

protect them from Soviet attack or coercion are understandably sensitive to apparent changes in our capabilities or intent.

From Hiroshima to the Present

While the basic objective of deterrence has remained the same since World War II, the policy and weapons needed to implement it have evolved to fit the changing international situation. As the international environment has become more complex, our deterrent strategy has become more flexible. Simultaneously, however, Soviet military strength, particularly nuclear capability, has increased much more rapidly than ours. This situation has heightened the debate about our ability, both real and perceived, to deter Soviet aggression.

Reviewing the evolution of our

deterrent strategy gives the impression that changes in policy are more abrupt than they actually are. Changes in the strategic balance have been gradual, and we have routinely altered our secret operational plans for actually using nuclear weapons should deterrence fail. Changes in our public deterrent strategy, however, generally occur only after a new administration's evaluation of the strategic situation. The changes in deterrent strategy, and the catchy names associated with them, such as "massive retaliation" and "mutual assured destruction," are actually landmarks along the same path, not changes in direction.

Massive Retaliation

America emerged from World War II as the only nation with nuclear weapons. After the war, we demobilized most of our conventional forces, but the Soviet Union did not. Consequently, Soviet conventional forces became a major threat to postwar Western Europe. The limited number of atomic weapons available to the United States was not enough to prevent Soviet occupation of Western Europe. To contain Soviet expansion, therefore, we threatened atomic retaliation against the Soviet Union itself.

The Soviet Union exploded its first atomic bomb in 1949, but superior bomber capability and an increasing stockpile of fission bombs gave the United States clear-cut nuclear superiority throughout the Truman Administration.

The Eisenhower Administration introduced the strategy known as "massive retaliation." Henceforth, we would not match the larger Soviet conventional forces which threatened Western Europe. Instead, we would depend on nuclear weapons to prevent uncontrollable conventional aggression. Those weapons might be used not only on or near the field of battle but also against military forces and other installations in the enemy's homeland.

Massive retaliation presupposed our overwhelming nuclear superiority. We could severely damage the Soviet Union while their threat to us was small. Although this strategy deterred armed aggression throughout the Eisenhower Administration, increasing Soviet nuclear capability
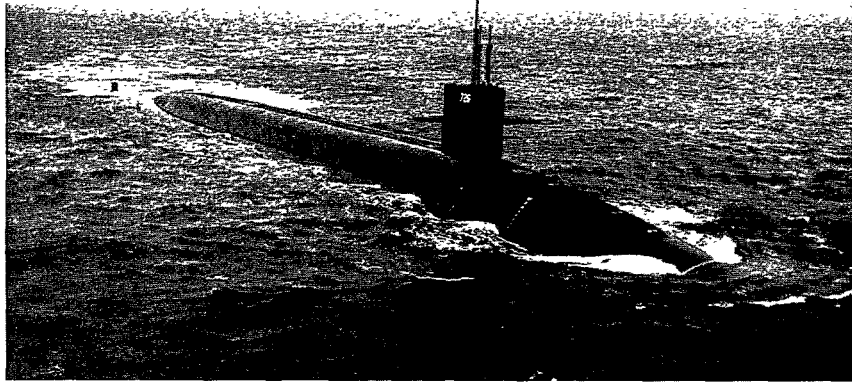
Trident missiles are launched from nuclear-powered submarines like the one pictured here.

The Tomahawk is a low-flying cruise missile capable of seeking its target.

had weakened the strategy's credibility by the late 1950's.

Mutual Assured Destruction

By the advent of the Kennedy Administration, the strategic nuclear balance had changed significantly. While the United States had more nuclear weapons, both countries had large nuclear arsenals, including intercontinental ballistic missiles (ICBMs) placed in protective silos and, eventually, in submarines. These missiles, however, were not accurate enough to destroy the enemy's weapons, and it became clear that neither side could effectively reduce the other's ability to retaliate. A nuclear war, therefore, would devastate both nations.

The changing balance of nuclear capability, therefore, prompted changes in our deterrent strategy.

Without renouncing the first use of nuclear weapons in response to a conventional attack, we put less emphasis on this aspect of strategy. If attacked, the United States said it would retaliate against both Soviet urban industrial and military targets. The basis for our approach to deterrence, therefore, became the assured ability of both countries to destroy each other as national entities. This concept of mutual assured destruction remains the last resort of our nuclear deterrent strategy.

This strategy required that enough U.S. forces survive a nuclear attack to retaliate effectively. Mutual assured destruction, therefore, increased the importance of numbers and size of nuclear weapons available to both countries, since this "balance of terror" also implied a balance of destructive capability. Any significant advantage in nuclear capability might affect, or be perceived as af-

fecting, this balance.

Mutual assured destruction also prompted the development of three distinct elements in our nuclear forces. To preserve our retaliatory capability, we developed land-based ICBMs and sea-based, submarine-launched missiles to complement our strategic bomber force. These forces, known as the Triad, compel the Soviets to attack each element differently and to develop multiple methods of defense against them.

Flexible Response

Although our strategic capabilities improved throughout the 1960's, the Soviets consistently spent more money on nuclear weapons than we. During the Vietnam War, Soviet strategic nuclear capability increased until, by the early 1970's, it equaled ours. The Soviet program emphasized massive ICBMs, which could carry a large number of warheads. These ICBMs were placed in silos vulnerable only to a direct hit by a large nuclear warhead.

The growing Soviet nuclear capability seriously hampered U.S. efforts to deter conventional attack by threatening to use nuclear weapons. Since such retaliation might prove suicidal, our threat now seemed less believable. In Europe, the presence of many U.S. troops, and our reliance on tactical nuclear weapons to defend against numerically superior Warsaw Pact conventional forces, still maintained deterrence. Elsewhere, however, the threat was less persuasive.

While nuclear parity did not significantly alter the reality of the "balance of terror," it did create perceptual problems. The Soviet buildup created a fear that, if faced with a full-scale nuclear war which we might lose, we might be susceptible to nuclear blackmail. For example, the Soviets might launch a limited attack against the United States or our forces abroad and still retain enough weapons to annihilate us, if we responded. Such an attack, or its threat, could leave us with two choices: either a suicidal massive response or submission. The possibility of nuclear escalation might even prevent us from using the tactical nuclear weapons needed to stop a conventional attack.
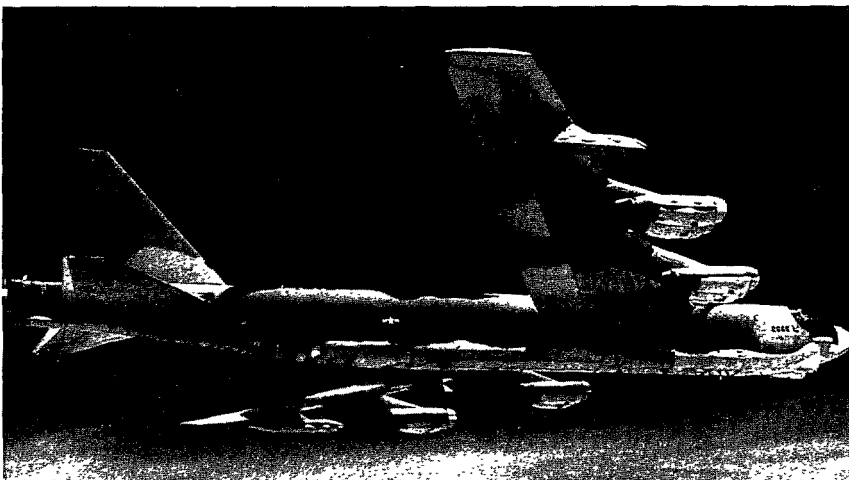
The B-52 bomber, built in the 1950's and 1960's, will be replaced by the B-1B bomber.
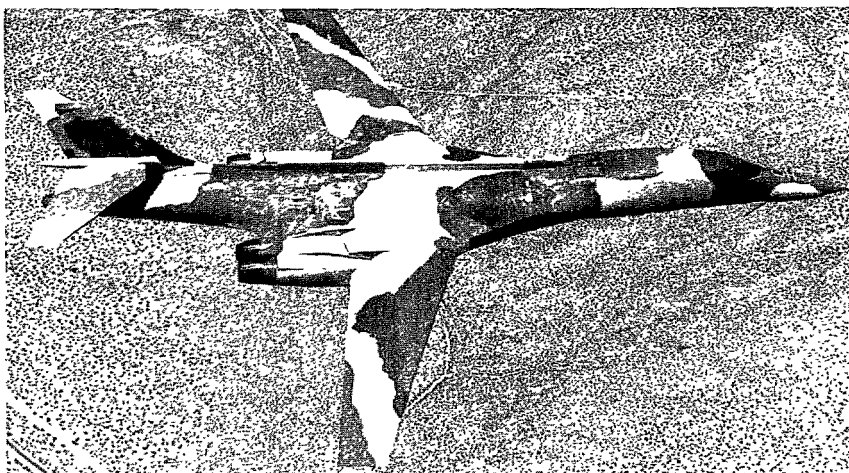
The B-1 bomber will drop both conventional and nuclear weapons. Pictured is the B-1A bomber. The Reagan Administration approved construction of the B-1B.

To reinforce deterrence by removing the Soviet temptation to consider any level of attack, the Nixon Administration introduced the concept of flexible response. The massive retaliatory strike was divided into a series of smaller subsets that could, if necessary, be executed separately. The administration sought to show that we could deter attempted coercion or control escalation if deterrence failed. To increase Soviet uncertainty about our precise capability and response, we did not define the nature and size of these options.

At the same time, the United States introduced "essential equivalance" to enhance perceptions of balance between the two countries. Essential equivalence compares the two nuclear forces in terms of megatonnage as well as such meaures as numbers of warheads and delivery vehicles. The two forces are judged essentially equivalent if Soviet advantages in some areas are offset by U.S. advantages in other areas.

Essential equivalence does not measure deterrent capability, but it does provide a way of judging relative force size and capabilities. Because no one knows precisely what will deter the Soviet Union, essential equivalence, or its lack, cannot guarantee deterrence. But since we use essential equivalence to measure the strategic balance, it has acquired substantial political and perceptual significance.

Countervailing Strategy

The Soviet nuclear buildup continued throughout the 1970's and included some disturbing new elements. Soviet ICBMs, always the mainstay of their nuclear forces, began to feature multiple warheads whose improved accuracy might destroy our missiles in their silos. A single large Soviet ICBM with several warheads could destroy several of our missiles. As a result, for the first time in 20 years, one side might be able to limit the damage it would suffer in a retaliatory strike. An effective Soviet attack on our nuclear forces could again force a choice between capitulation or suicide.

Although the ability to launch such an attack does not imply a willingness to do so, dangerous perceptual problems could result from this change in the nuclear balance. If the Soviet Union's improved offensive and defensive capabilities have changed their perceptions of the outcome of a nuclear war, they may be less reluctant to risk it. If the United States seems intimidated by Soviet capabilities in a large-scale nuclear exchange, it will be increasingly difficult to deal with Soviet superiority in conventional forces. And if our allies see us as less able or willing to effectively forestall or stop such actions, their support may diminish, particularly when they are not directly threatened.

Responding to these perceptions, the Carter Administration further refined U.S. strategy to emphasize our willingness and ability to more flexibly employ nuclear forces to deter or respond to limited contingencies. While employment flexibility and responsiveness has been part of U.S. deterrent strategy since the Nixon Administration, it was more clearly defined with the emergence of "countervailing strategy" in 1979.

Countervailing strategy requires that, in any contingency, the U.S. must be able to

• absorb a limited attack and still respond in a controlled and deliberate manner,

• analyze quickly and correctly the nature of the attack and plan retaliation to eliminate any enemy advantage,

• retaliate so that the enemy will clearly see that it is a limited response,

• retain the ability to hold vital and valuable targets hostage, while threatening their ultimate destruction, to provide an incentive for escalation control, and

• maintain forces at a high level of readiness, while trying to limit escalation and reduce tensions.

According to countervailing strategy, we will deter coercion or attack at any level by being able to respond deliberately and selectively, thereby denying any enemy advantage.

Unlike earlier approaches to flexibility, countervailing strategy does not rely solely on preplanned options. This approach to deterrence implies the ability to rapidly modify existing plans to precisely fit the existing situation. At the same time, we must be able to threaten valuable targets as we press for escalation control. To demonstrate this approach, the United States must have the planning ability and the weapons to provide an unbroken chain of military options from conventional war through full-scale nuclear war.

The prospect of limited attacks, flexible responses, and attempts to control escalation have raised the spectre of limited nuclear war in the nuclear debate. Such a war has been discussed, particularly in Soviet military writing, for several years. Although the U.S. considered the concept of flexible nuclear response during the Kennedy Administration, only recent improvement in weapon capability, particularly missile accuracy, has made it credible. Since the Soviets apparently accept this notion, we can only try to deter it.

Besides tailoring appropriate retaliation, countervailing strategy also implies the ability to fight a protracted but limited nuclear war, should deterrence fail. This war could involve one, or possibly several, limited nuclear exchanges preceded and followed by weeks or months of high readiness, while we try to control escalation. Unless our forces prove they can wage such a war, an enemy may not be deterred from starting one.

Although the Reagan Administration does not refer to countervailing strategy, this approach has become part of its nuclear deterrent policy.

Weapons Must Change To Match New Strategy

Making our deterrent strategy believable will require translating our intentions into appropriate hardware. While the current administration has been willing to pay the price of modernizing our forces, fiscal restraints have made the Congress increasingly skeptical about whether we can afford new weapons systems. In this environment it is essential that the weapons we do buy contribute as much as possible to our deterrent capability.

Existing nuclear delivery systems were generally designed to meet the requirements of massive retaliation or mutual assured destruction. Employment plans and system design presumed a massive exchange, using most available weapons against a broad range of targets. In general, such retaliation was preplanned and available for execution based on a single precoded command. This type of "spasm" retaliation was the basis for planning, system characteristics, and the command and control system needed to operate these systems.

From this perspective, the origin of a nuclear exchange hardly influenced its execution. And it was relatively easy to determine what kind of weapons you would need to fight it. Once started, the carefully preplanned sequence of events would move to its irrational conclusion. The best guess of experts about what would happen was put into computers and translated into sterile, computerized exchange models. By juggling the capabilities and numbers of various combinations of weapons, one could decide what, and how much of it, was necessary to win the war. If the Soviets were using the same computer program, they would theoretically be deterred from starting a war that our computer had already won.

In August 1981, GAO published a report, "Countervailing Strategy Demands Revision of Strategic Force Acquisition Plans" (MASAD-81-35, Aug. 5, 1981), which explored the implications of current deterrent

Governmental Budget Reform: An Agenda for the Eighties
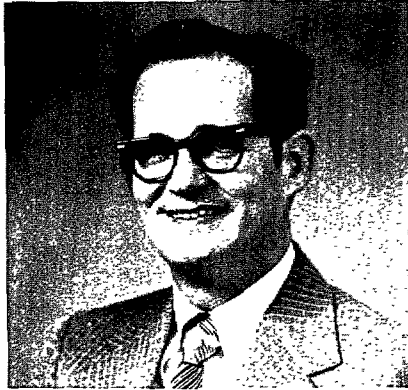
Harry S. Havens
Assistant Comptroller
General for Program
Evaluation

The following article is adapted from Mr. Havens' address to the Association of Government Accountants during its 1982 Professional Development Conference in Denver on June 15, 1982.

Sixty years of evolution produced today's Federal budget process. While the Budget and Accounting Act of 1921 established the notion of a coherent budget, submitted in unified form by the executive branch, a series of discrete events altered the course of that evolution. In my view, the most important of these were

• the adoption of the Brownlow Commission recommendations, which made the Budget Bureau, and thus the budget, a key instrument for presidential management;

• the Employment Act of 1946, which established the legitimacy of using aggregate fiscal policy, and thus the budget, to promote economic stability and growth;

• the adoption of the recommendations of the President's Commission on Budget Concepts, in 1967, which regularized what had previously been an informal body of budgetary conventions and practices; and

• the Congressional Budget and Impoundment Control Act of 1974, which added institutions and procedures to help the Congress act on budgetary aggregates and set funding levels for broad categories of Government activity.

The body of law and practice which has developed since the 1921 act looks superficially impressive and sounds coherent, integrated, and comprehensive. One might even argue that no major national government possesses a better developed budget system. And taking into account the inherent complexities resulting from a Federal system and the separation of powers, it seems even more impressive.

Given this perception, one naturally asks why, today, should we discuss "Governmental Budget Reform: An Agenda for the Eighties." I offer several answers that are not mutually exclusive.

Why Do We Have a Problem?

First, many people are displeased with what the system is producing right now. And different people are unhappy with different parts of the result for many different reasons. The conflict among the President, the Senate, and the House this year, a conflict centered on the budget, has almost paralyzed policymaking. And this near paralysis has occurred when the conflict between an expansive fiscal policy—embodied in the budget—and a restrictive monetary policy—embodied in the actions of an independent Federal Reserve System—was yielding a recession apparently worse than any since the Great Depression of the 1930's. Given our history, this type of situation leads to reform of the system perceived as being part of the problem.

Second, the Government and the Nation have changed dramatically since the basic elements of our current budget process were designed. Larger and more complex than in the 1920's, the Government requires a great many more decisions. Yet the number of formal decisionmakers (1 President, 435 members of the House, and 100 Senators) has not changed materially, and the level of detail at which they attempt to operate has changed little, if at all. In addition, the breakdown of party and committee discipline now involves individuals who previously would not have made decisions. Rather than spreading the workload, their involvement only further complicates the process. The result is a system where decisionmakers are so inundated with details that they can scarcely focus on policy-level issues.

Third, the political pressures on the budget process seem to have intensified in recent years. Despite growing dissatisfaction with the totals, the pressure to increase each of the parts has not declined. One

principal function of budgeting is to reconcile these conflicting pressures. But present congressional process requires a series of votes where the elected legislator must repeatedly, publicly, and explicitly choose between two unattractive alternatives. Voting to preserve a program means simultaneously voting to increase the deficit. The resulting frustration casts some doubt over the ability to preserve the process.

Fourth, the economy—and our perceptions of how it functions—have changed in recent years. Events of the past decade, and particularly of the past year or so, have shown that an active fiscal policy (at least as it has been pursued) cannot yield generally satisfactory economic stability and growth. Today's active and successful economic policy clearly requires effectively integrating several different instruments of economic policy.

Finally, the systems which support the budget process—systems for accounting, evaluation, and management information, particularly—no longer meet its needs. Obsolete designs have delayed their basic development, and insufficient integration has kept these systems from being mutually supportive. Some weaknesses concern only those who toil within the process itself. The hypothetical average citizen, if asked what was wrong with the Federal budget process, would probably say that the budget (or the deficit) was out of control and that something is wrong with a system where this can happen (or, at least, with the leaders who permit it).

This "average citizen's" concern about budget system results is probably all we should expect. We, the presumed experts, ought to be able to figure out why it yields undesirable results and how we can fix it.

Suggestions abound, and we will be hearing much more about them in the coming years. By the end of this decade, the budget process will probably be considerably different.

What Should We Expect of a Budget Process?

Before considering differences, let us think about what the budget proc-

ess is and what it should accomplish.

Governmental budgeting is both a management and a political process. This "political" process involves more than partisan politics. Governmental budgeting is our cardinal process for reconciling an enormous number of divergent and often conflicting policy objectives which we, as individual citizens, seek to achieve through the instruments of government.

Budgeting as a political process is (or should be) how we decide how much of the Nation's resources will be used for which public purposes during a particular period. Such decisions have feedback effects. The present use of resources can affect (sometimes quite profoundly) the resources available for use, either now or later, by changing the aggregate level of economic activity.

Besides fiscal policy, other factors affect the level of economic activity. Monetary policy clearly has comparable power, at least in its ability to constrain the economy. And other components enter into an overall economic policy. Thus, with respect to economic stabilization and growth, the budget is (or should be) part of a much larger policy process.

In addition to being a framework for policy formulation, the budget is (or should be) a management plan for the Federal Government. Here the budget should establish and rank the necessary tasks and the resources available for accomplishing them. The system which develops this management plan should also incorporate (or connect with) mechanisms to (1) determine whether the tasks were carried out, and how well; (2) guide and control managers (when appropriate) to preclude excessive deviations from the plan or other important policy objectives; and (3) hold managers broadly accountable for efficiently and effectively accomplishing these assigned tasks.

Simplification

Some problems in the budget process result from these multiple roles and the difficulty of constructing decision points and information flows appropriate to each role. For example, the level of detail in the budget *Appendix* may suit the man-

agement control function within the executive branch. But it fails as the framework for setting resource allocation priorities between the public and private sectors or within the public sector.

No decisionmaker can grapple with the thousands of separate decisions represented by the appropriation account, activity, and object class structure in the *Appendix.* In trying to do so, even the most conscientious decisionmaker would miss the forest for the trees.

While decisions at this level of detail are important, those made at the top of the governmental structure must convert into more detailed decisions as one moves down the hierarchy and simultaneously moves from planning broad priorities to implementing specific programs and activities. This downward movement quickly yields decisions at a much greater level of detail than is represented in the *Appendix.* But recognizing that the process *leads* to highly detailed "managerial" decisions is quite different from assuming that those at the top need *make* those decisions.

Public administration literature repeats the notion that top policy officials (the President and the Congress) should focus on board policy, including the basic direction and general content of programs. According to this thesis, once these decisions are made, program managers should receive the authority needed to implement those policy directions and should be held responsible and accountable for the results. Although often endorsed but rarely implemented, this issue is taken more seriously today, partly because top policy officials simply have too many decisions to make.

Thus, one necessary reform is simplification of the budget structure. This reform would reduce the number of individual issues presented to the President and the Congress, while simultaneously elevating each decision's importance.

This simplification will not be easy. The first problem comes in deciding which decisions should be made at the top. Our constitutional system means the judgment must be reached by consensus, not by fiat. And controversies abound.

The second problem comes in pro-

viding managerial discretion and building effective accountability systems at lower levels of the hierarchy, once the priorities have been set at the top. Government lacks the equivalent of business's bottom-line profits, which limits discretion and measures accountability.

Good people have been struggling with these difficult problems for years. And while we may never actually solve them, policy officials at the top of the pyramid are now pondering them. This level of attention should produce significant progress in the years ahead.

Farsightedness

Focusing on which policy issues are elevated to the top of the pyramid necessitates determining the context for their decision. The level of detail of the present budget process and the short-term emphasis of that process are mutually reinforcing pressures. Dealing with details means only worrying about the short run; concentrating on the short run means only affecting the details.

Our present economic problems come from undue preoccupation with short-term consequences and inadequate attention to the longer term, where public policy decisions can have a much more substantial effect. The same is also true for other social policy objectives. For example, no policy instruments can *cure* centuries-old problems of discrimination and poverty in a year or two. We should not expect them to do so, and we should not be so quick to assert failure when it takes longer than we thought.

Let me clarify this crucial point. We cannot ignore the short run, such as the fact of a very large budget deficit, the problem of 10 million people out of work, and the enormous cost to society (and the human tragedy) involved in poverty and discrimination. But we should design our policy process so that our policymakers can distinguish between what they *can* do in the short run (largely the *amelioration* of problems) and what requires longer term action.

Admittedly, the dividing line between the short run and the long run depends on the particular issue. Nonetheless, for those policy issues deserving congressional and presidential attention, the 1-year planning

horizon of the traditional budget process is grossly inadequate. Economic policy, for example, requires a planning horizon of 5 years or more. Our more pervasive social problems will probably require a generation to produce progress toward solutions.

Appropriate planning horizons already attract attention. Outyear budget projections have been a feature of the budget process for several years, and people have been looking at them with growing interest. Some of the most acrimonious debate on the budget this year has involved the deficit projections for 1984 and beyond and what can (and should) be done to lower them.

Proposals are being examined to shift the Federal Government to a biennial budget. This shift would require overcoming great resistance and solving many technical, procedural, and policy problems. Some are obvious; others may not even appear unless we make the shift. But if we do not make the switch consciously, we may find in a few years that we have largely accomplished it incrementally. This could happen through a steady expansion and acceptance of such practices as multiyear contracting, multiyear funding, advance appropriations, etc.

A growing desire to anticipate future conditions accompanies increasing concern for the consequences of our policies. Originating partly in our failure to anticipate the energy crisis of the 1970's, this interest has spread to other areas as well.

A declining birthrate, an aging population, and an increasing percentage of working women will have profound effects in decades to come. These factors, plus ongoing structural changes throughout our economy and society, will create problems and opportunities. No one can predict that future with confidence, but some evidence suggests that we are trying to anticipate conditions while time remains to rememdy them.

Encouraged by this trend toward greater farsightedness, I attribute it to an increasingly realistic understanding of our government, economy, and society. I believe that our political system is sufficiently flexible and resilient to institutionalize the trend.

Integration of Policies

Some are beginning to understand that policies indeed interact and that we need to respond intelligently. Our economy is contracting in a severe recession despite the most expansive peacetime fiscal policy in history. Many economists attribute this situation to the collision of that fiscal policy with a restrictive monetary policy designed to squeeze out the recent inflationary trends.

Economists disagree about where the fault lies and thus about which policies should be changed. Indeed, some even hold that the problem is self-correcting and preach patience. But I suspect they are a declining minority.

Senior officials increasingly recognize that both fiscal and monetary policy affect economic conditions. From the obvious collision between those two basic macroeconomic instruments, officials will sense our need for an integrated policy.

One cannot say how such integration might occur because it has not yet received sufficient attention. One obvious choice would be to explicitly subordinate monetary authorities to the political process. But that probably will not happen, given a strong tradition of an independent Federal Reserve Board and the useful insulation that formal independence provides.

During the next years, people will debate about how to maintain an independent Federal reserve system while still assuring that its monetary policies are "tolerable" to the political system. As usual, we will find some pragmatic way of reconciling these apparently conflicting objectives. But further reform will mean considering the budget process as the mechanism for achieving necessary and desirable integration.

The budget process will also integrate other elements of economic and social policy. Through the years, but particularly in recent times, people have suggested regulatory, Federal credit, capital, and tax expenditures budgets, to name a few. Creating a true "budget" in any of these areas would require dealing with some very difficult (but not insurmountable) conceptual and technical issues. The results may or may not be worth the effort. But each pro-

posal evidences concern for the need to discipline a particular policy instrument and to assure its effective integration with other policies. In the past, the "gold budget" incorporated into the budget process our concern over the balance of payments. These items illustrate the range of policies which may, in the future, be integrated through the budget process.

Integration of Supporting Systems

Integration involves not merely policies but, more important, the systems which support their formulation. Officials do not (or should not) make policy in a vacuum.

How people acquire this needed information constitutes part of the problem. The vast number of information systems and sources frequently work at cross-purposes. These include evaluation networks as well as systems for accounting, budgeting, management information, economic forecasting, program monitoring and reporting, auditing, and numerous other tasks.

No policy official can make sense of it all because the design of each information source bespeaks isolation rather than integration. Each source has its own language, structure, set of data elements, reporting frequency, and lag times. Thus, the decisionmaker must reconcile inconsistencies and somehow understand everything. No wonder intelligent, conscientious officials simply despair. Inundated by data, they receive little real information.

Reliance on one congenial information source only worsens the problem. By ignoring other potential sources of information, the decisionmaker loses crucial parts of the picture. And those who supply information are also at risk because budget austerity lulls people into cutting off seemingly irrelevant information sources.

Although people have long complained about information overload, only now will we start to remedy it. As our ability to handle large volumes of data grows geometrically (in a technical sense), we can expect increasing integration of this data from multiple sources. This increased integration will entail common terminologies, common structures of data, and common reporting intervals as a starting point. The eventual development of fully integrated data bases will enable us to pull various facets of information about a program, for example, confident that the data has both commonality and integrity.

If simplification occurs along these lines, the budget will probably provide both the pressure and the framework for this integration. Information systems which cannot be incorporated within this unifying decision framework will become increasingly isolated and irrelevant in the real world.

Balanced Budget Amendment

Returning to budget policy matters, I think the issue of a constitutional amendment requiring a balanced budget fits into a different category of "reforms."

My ideas for reform have focused on helping policy officials decide what policy objectives to pursue and how to pursue them. These reforms presume that, given good data, good analysis, and an appropriate decision framework, policy officials will choose appropriate policy objectives and pursue them effectively. Hence, these "reforms" concentrate on the policy formulation system rather than the policies themselves.

The balanced budget amendment starts from a different premise. According to this position, our political system is inherently biased and, thus, we cannot trust it to yield a specific outcome. Consequently, only a constitutional mandate can force it to work the way we want it.

Without presuming to urge acceptance or rejection of this proposal, I will examine some difficult technical issues in making the approach work. Definition provides a problem. Those who struggle with the budget dispute how to draw a line around the government, that is, what should be in the budget and what should not. Like the concept of the "entity" in accounting, the issue is conceptually very simple but operationally very complex. Faced with many gray areas, we have produced a series of conventions to define government for budg-eting purposes. And these conventions have changed from time to time.

The proposed amendment nowhere reflects these conventions or their mutability. While some might welcome flexibility in a potentially unduly rigid constraint, the citizens may balk if they ratify a constitutional constraint, only to see it easily defined away.

Suppose, for example, that the Congress and the President were to enact a law stating that, for budgetary purposes, the Social Security trust funds are no longer part of the Federal Government. Such proposal has recently been revived, and there is precedent for it, since the funds were outside the budget before 1967. If not rejected by the Supreme Court, that step, and others like it, could effectively nullify the amendment.

A second set of problems concerns feasibility. We all recognize our Government's problems in reducing the 1983 deficit to $100 billion. Every proposal to do so combines spending cuts and revenue increases (or "enhancements," to use the current euphemism). Imagine the difficulty of bringing the deficit to zero, and *doing so without any increase in taxes.* Admittedly, the amendment calls for reaching this goal over a period of several years. But given the structure of tax cuts already enacted, that may make the objective even more difficult. Indexation of tax brackets neutralizes the effect of inflation on revenues without relieving the pressure of inflation on expenditures.

From another perspective, one wonders how we would handle the inherent imprecision of the economic statistics which would define the constitutional constraint. Nor can we foresee how the implementing rules (particularly those dealing with enforcement of the mandate) would affect the historic balance among the branches of government.

These questions alone—and there are others—convince me that we would be in for some troublesome times if the amendment were passed and ratified.

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The Security and Safety of GAO

Security (n.):	Measures taken to guard against espionage or sabotage, crime, attack, or escape
Safety (n.):	The condition of being safe from undergoing or causing hurt, injury, or loss

Mary Jo Worcester

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Many of you who have been in GAO during the past 18 months have seen and been a part of the many changes in GAO's security program. This program, which has expanded greatly in scope and quality, is helping to improve almost every phase of work life at GAO. In this article, we'd like to review GAO's security history and show how our agency has become safer and more secure.

History

GAO's expanded emphasis on safety and security began in 1979, when former Comptroller General Elmer Staats was advised that GAO had the second highest crime rate of any government building in the Washington, D.C., area. To compound the problem, Mr. Staats was also informed that hostile intelligence operatives may have been trying to use GAO as an information-gathering source.[1]

In June 1979, Mr. Staats met with William Webster, Director of the FBI, to discuss GAO's crime and security problems. At Mr. Staats' request, a team of FBI agents surveyed GAO. The FBI's findings, issued as a classified report in September 1979, showed an overall need for improvement in GAO's security measures.

After reading the FBI's report, Mr. Staats organized the GAO Security Task Force to examine a broader range of GAO activities. The task force reviewed technical, personnel, and document security practices and procedures throughout GAO and its regional offices. The task force recommended that an Office of Security be established to incorporate the Safety and Security Branch from the Office of Administrative Services and assume responsibility for per-

sonnel security, a matter then handled by the Personnel Office.

On November 5, 1980, Arthur Klekner was appointed as the first director of the new Office of Security, which was charged with

• establishing policy, standards, and procedures to ensure a safe working environment for GAO employees;

• protecting property and material entrusted to GAO;

• safeguarding sensitive information from unauthorized disclosure, espionage, or sabotage;

• administering the personnel security program with regard to granting security clearances and employment suitability; and

• conducting investigations and inspections to ensure GAO-wide compliance with security and safety policy.

In December 1981, the office was renamed the Office of Security and Safety (OSS) to more closely reflect its mission. OSS' actions to expand GAO's security program have been based largely on task force recommendations, recommendations of its new director, and guidance from the Comptroller General's office.

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[1] After this article was written, the Senate Special Committe on Intelligence reported that investigations had found no information to support allegations that foreign agents were able to obtain classified documents from GAO because of lax security procedures Between 1979 and 1982, the Federal Bureau of Investigation and the committee staff reviewed security and document control at GAO. A summary report appeared in the September 24, 1982, *Congressional Record*, pp S12286-87 and the October 5, 1982, issue of the GAO *Management News*

Limiting Access Is a Priority

After reviewing the task force's recommendations, OSS set its priorities and began to take action.

OSS first explored the problem of unauthorized entry into the GAO Building. Until this time, the building was considered "open," and members of the public had relatively free access to it. OSS' priority was to revamp the procedures which allowed an individual to enter the GAO Building. To tighten security, the General Services Administration, at the request of OSS, declared the GAO Building "closed," and access by the public and other visitors is now more tightly controlled. Turnstiles have been installed at the G and H Street entrances and can be operated only with magnetically encoded identification cards. All other visitors must be identified and checked in by the contract guard force, which is under Federal Protective Service jurisdiction, or by the GAO receptionists (OSS employees) who are located at the G Street entrance. Sensitive locations within the building, such as the Procurement, Logistics and Readiness Division, the Mission Analysis and Systems Acquisition Division, and the GAO Mailroom, are equipped with their own access control readers to prevent access by unauthorized personnel.

In conjunction with the building access control system, barriers have been installed between the first floor and basement stairwells to thwart property theft. (The barriers open during emergencies.) Also, closed-circuit cameras have been installed to monitor activity in selected interior and exterior locations.

GAO's Office of Administrative and Publishing Services (OAPS) and the General Services Administration (GSA) spent many hours overseeing the installation of turnstiles, stairwell barriers, and the reception desks at GAO entrances. Without their dedicated efforts, none of this equipment could have been installed.

Along with magnetic identification cards, new credentials were issued to GAO's audit, evaluation, and investigative staff and to high-level GAO officials. The credential, used primarily to identify GAO employees to other government or private-sector agencies, delegates the authority of the Comptroller General to inspect the records of another organization. GAO's nonaudit employees do not need a credential to perform their work and use the new magnetic card as GAO identification.

GAO's reports present another security problem. The public must have access to the Document Distribution Center on the first floor to pick up copies of reports. A new distribution area, located just inside the H Street entrance, allows individuals to obtain reports without going through check-in procedures, but they are not allowed further access into the building. Restricted or classified reports are not distributed to the public.
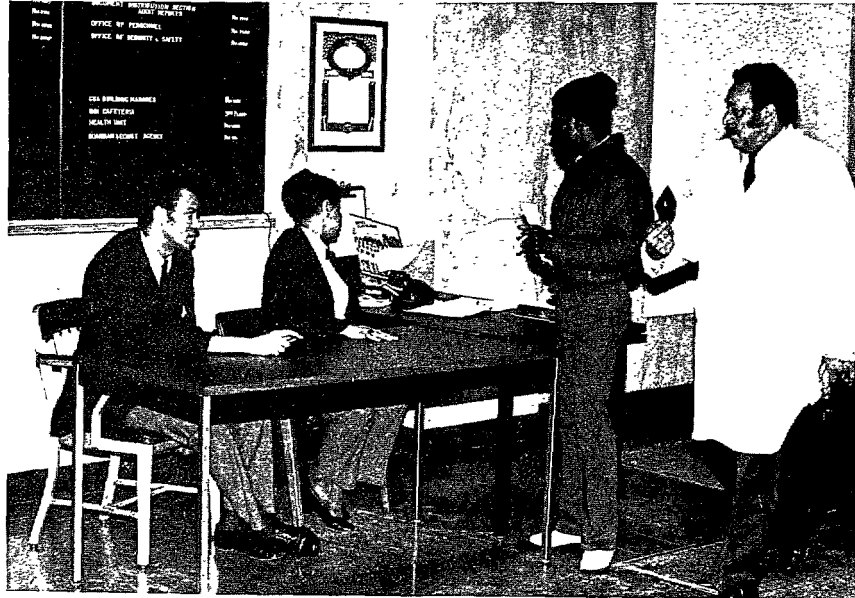
The Federal Protective Service, which provides the guard force for GAO, used a manual check-in procedure for visitors before the turnstiles were installed.

GAO receptionists Linda Ciancio (l.) and Beth Raffensperger greet visitors at the G Street entrance and quickly validate approval for entry via computers.
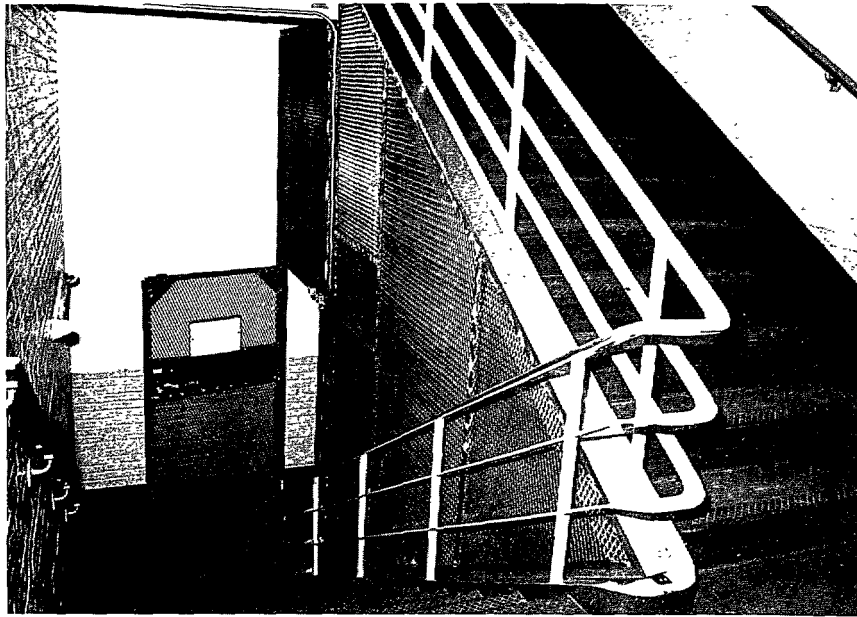
Stairwells between the first floor and basement are equipped with barriers.

Safeguarding from Espionage

GAO is responsible for the safekeeping and security of sensitive and classified material obtained in the course of an audit. During the past several months, all GAO activities have been undergoing a complete inventory of their classified documents.

To strengthen GAO's safeguarding ability, the agency is negotiating with the Department of Defense to participate in their Industrial Security Program. This program assures the safe handling of classified information when it is being used by U.S. industrial organizations, educational institutions, and any subcontractors or facilities used by contractors. When a contractor takes classified material off Government premises, the contractor's personnel, storage facilities, and handling procedures must be adequate to protect the material. (In GAO's case, this program will particularly apply to our consultants.) Defense's Industrial Security Program has employees nationwide who investigate, grant clearances to, and monitor the security procedures of contractors and consultants when these steps are requested by the user agency.

Also, to reinforce the idea that security can be compromised at any

time or at any place, OSS scheduled security briefings and seminars to advise GAO employees of the potential threat by hostile intelligence efforts. In the past year, the Federal Bureau of Investigation has provided secret-level briefings to GAO management. The briefings concentrated on the counterintelligence threat by using case histories and illustrating methods of operation, telecommunication interception, and means of recruitment. These briefings gave guidance on reporting such activities so that the FBI can monitor suspicious personnel. The FBI will also be

briefing GAO's regional offices in the near future.

The FBI was also requested to take a second look at GAO's security program. During the fall of 1982, an FBI inspection team will be reviewing the accomplishments to date to reduce the threat of potential hostile elements.

In the personnel security area, GAO Order 0920.1, "The Personnel Security Program of the General Accounting Office," is being revised to better identify all GAO positions and categorize them according to sensitivity. This will allow OSS to better determine what type of background investigation is needed for each position. The revised order will also establish policy and procedures to process and adjudicate matters regarding security clearances and suitability for employment. The processing time for GAO security clearances, formerly 75-120 days, has lessened considerably; it now takes an average of 30 days to obtain an interim clearance. Indications are that the time may decrease further.

GAO is also stepping up action against electronic surveillance. The agency now possesses equipment that can locate "bugs" in offices and in telephones. OSS has also distributed telephone stickers reminding employees that GAO telephones should not be used for classified conversations. Sometime during the early fall of 1982, a secure telephone will be installed in the office area of the Mission Analysis and Systems Acquisition Division.

New and Revised GAO Orders on Security and Safety

0843.3	"Smoking and Non-Smoking in GAO-Occupied Space"
0910.1	"Physical Security Procedures for All GAO Activities"
0910.2	"Identification Media"
0920.1	"The Personnel Security Program of the General Accounting Office"
0930.1	"Information Security Program"
0930.3	"NATO Information Security"
0930.4 (A-81)	"Safeguarding Unclassified Sensitive Proprietary Information"
1010.1	"Occupant Emergency Plan"
1010.2	"Fire Prevention and Protection Practices"
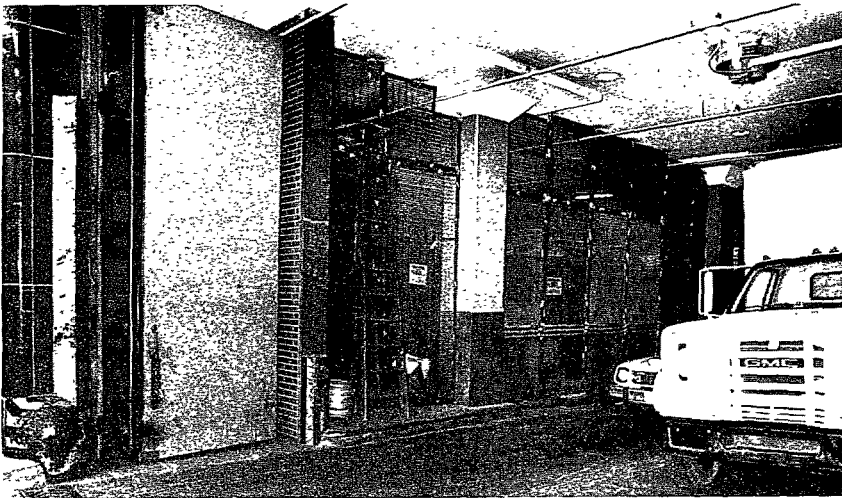
A security barrier has been installed in the loading dock area.

General Services and Controller director Richard Brown (center) discusses the new turnstiles with (from left) Mallory Andrews, deputy director, OAPS; Carolyn May, Facilities Branch manager, OAPS; Arthur Klekner, director, OSS; and Carmelo Ciancio, Space Management section chief, OAPS. GSA was also instrumental in getting security equipment installed.

leaves the G Street building entrance every 15 minutes between 6:00 - 10:00 p.m. and takes employees to neighboring parking lots and the Judiciary Square subway station.

OSS, having the responsibility for GAO's parking program, was recently able to acquire 100 additional building parking spaces from GSA. As a result, nearly all GAO employ-

Assistant Comptroller General John Heller is approved to enter the parking area under the GAO Building.

ees who had requested a parking space in the building were able to receive one. (Carpools still receive priority for available spaces.) By obtaining more indoor parking, OSS hopes to provide a safer environment for employees who drive to work.

OSS is also conducting after-hours security and safety inspections. These inspections will reveal any weaknesses in storing and handling classified material and will identify those offices that have the potential for theft (personal and Government property left unsecured).

A safety and security program is only as good as the participants make it. Because the GAO Building is occupied by several agencies, OSS saw the need for coordinating the safety and security functions among the agencies. The GAO Building Physical Security Board, comprised of representatives from each tenant agency, meets periodically to consider internal safety and security matters. To ensure that each new

Employee Safety

Ensuring the safety of employees is one of OSS' biggest concerns. Access to the GAO Building has been limited, but this does not eliminate all the problems. Should a medical or safety emergency occur, OSS has implemented a building-wide HELP-line to bring immediate assistance. The number, 275-HELP, rings simultaneously in OSS and at the guard

desk, but it should be used only in cases of medical emergencies, suspected fires, or when an employee needs emergency help. Non-emergency, routine calls and reports should be directed to OSS' main number, 275-4700.

Alarmed over a recent rash of muggings of GAO employees leaving the building later than normal working hours, OSS has organized an after-hours shuttle service. The shuttle

employee is aware of security and safety matters, a new employee receives a security briefing when joining GAO, and periodic update briefings will soon be implemented. A termination briefing is given when an employee leaves the agency. In addition, employees traveling overseas, whether for personal or business reasons, will receive a special briefing package before leaving the country, if such travel is made known to OSS.

Future Steps

In the 2 years following approval of the GAO Security Task Force's recommendations, GAO has developed an excellent security organization staffed by competent, enthusiastic security professionals. The increased emphasis on safety and security has already shown results. In the first 6 months of 1979, reported incidents of criminal activity in the GAO Building numbered 222. In 1982, the 6-month figure had dropped to 32. Even though much has been accomplished by the new Office of Security and Safety, much remains to be done.

In the future, OSS is considering changing the elevator schedule so that only one G Street elevator will operate to the basement during security hours. Individuals in the building would have to change elevators at the G Street pedestrian area where the night guard is located. This will help restrict thefts of Government and personal property. Also, OSS will install access control readers in the basement and subbasement elevator lobbies. This will eliminate the need for guards to check individual identification cards for those entering the building by vehicle and will reduce the traffic backups that result. Still, only authorized employees using a magnetic identification card would be able to enter the building from these areas.

The Investigations and Compliance Branch, OSS' most recent addition, is presently developing a GAO-wide security and safety compliance program which will help ensure that GAO employees have a safe and healthful work environment. As part of this program, OSS will develop the Security and Safety Compliance In-

Comptroller General Bowsher (l.) and Arthur Klekner, director of OSS (2nd from l.), discuss GAO's new turnstile system with John Jester (2nd from r.) and Randy Lash, representatives of the Federal Protective Service.

specton Guide, which will include an introduction to five security and safety areas and a series of easy-to-use inspection checklists. This guide will provide managers with a single ready reference by which they may review their operations, with emphasis on information security, physical security, personnel security, occupational safety and health, and crime prevention. The guide may also be used to review the security and safety procedures of the regional offices and to orient new employees in safety and security procedures. The branch is also responsible for establishing an internal investigation program within GAO. This program will address the prevention or detection and certain investigations of alleged criminal violations in which agency employees may be either victims or perpetrators.

OSS is also developing an Industrial Hygiene Compliance Program. This program, incorporating a new OSS Safety Laboratory, will oversee samples and tests for airborne asbestos, chemical hazards in the printing plant, abnormal sound and radiation levels, and other conditions which might endanger employee health.

* * * * *

In a recent letter to the Senate Committee on Governmental Affairs on GAO's security system, Comp-

Comptroller General Bowsher cuts the ribbon to open GAO's security turnstiles at the G Street entrance.

troller General Bowsher stated, "... GAO will have a security program which is thoroughly up-to-date and among the very best in the Washington area." With the cooperation of each GAO employee, we can achieve this goal.

Everyday Bureaucratic Realities and Program Evaluation

Robert B. Garey

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Editor's Note: From time to time the GAO Review publishes articles which, while not directly related to GAO evaluation activities, provide insight and suggest approaches useful in our work. This article provides insight into the problems faced by internal evaluators and offers solutions they have found useful. Of course, not all these solutions are available to GAO evaluators, but many, with appropriate modifications, can be of interest to our staff. GAO has compiled the results of agencies' internal evaluation work in a sourcebook entitled Federal Evaluations: A Directory Compiled by the Comptroller General, 1981 Congressional Sourcebook Series, (PAD-82-9). Copies can be obtained in Room 1518 of the GAO Building; call (202) 275-6241.

Government agencies, to a much greater extent than in the past, are conducting many of their own evaluations. Part of the reason for the growth of internal evaluations results from mandates in enabling legislation; part results from the demand of policymakers and managers to have better information on program performance. Questions covered in the internal evaluations range widely, including the speed at which programs are implemented and completed, the degree to which programs reach targeted populations, the gains realized by the people served, and the appropriateness of activities selected. This article focuses on internal evaluations and the practical problems associated with conducting these evaluations.

One of the most critical features of conducting internal evaluations is being able to deal with the day-to-day realities of bureaucracy. Failure to do so means that evaluations will not get off the drawing board, they will falter along the way, or they will end up sitting on the shelf. Unfortunately, most of the literature on doing evaluations focuses on the technology and rational methodology of evaluation. While these are important, they rarely help the analyst in moving through the human and social complex of organizations. This means that, in addition to knowing what technology is best to deal with such problems as regression artifacts, halo effects, or autocorrelation, the analyst inside a bureaucracy needs to know how to handle other constraints, including decision deadlines, hidden data bases, distant and busy policymakers, and organizational sabotage. This article shows how knowledge of bureaucratic agencies, combined with formal evaluation techniques, can help in dealing with these organizational constraints and, further, shows how this combination can produce better and more timely evaluations.

Bureaucratic Realities

There are four major bureaucratic realities that confront evaluators:

• Organizations have deadlines and short time horizons for meeting these deadlines; evaluation research takes time.
• Policy issues are often clouded and vague; evaluation needs clear direction.
• Organizations either have their data hidden or buried, or do not have it at all; evaluators need data and ready access to it.
• Organizational members do not always practice openness and cooperation; evaluators need both to conduct investigations.

Deadlines

The deadline is probably the most pervasive yet least addressed problem of conducting evaluation in bureaucratic organizations. To be useful to policymakers, evaluations must produce information and results by a designated time. Delivered late, the results are of little or no

value. Congressional committees do not wait for a study to be refined when budgets are being decided; State legislators do not pause for the elegance of a multiple regression when they are being pressed to pass a piece of legislation; city councils do not delay decisions on such matters as service delivery until a citizen survey has been completed. As Williams[1] emphasizes, "(t)o the extent that the use of outcome data, particularly the results of major program evaluations, are accepted by major decision makers, they *want* the data 'as of yesterday'."

Staying Abreast Of and Clarifying Policy Issues

If the deadline were the sole impediment facing the evaluation process, the task of evaluation would still be reasonable. Such is not the case, however. Coupled with deadlines is *the problem of determining the nature of the issue.* Often, evaluators do not know enough about the policy issues, or they are unable to gain an understanding of the issue in enough time to act swiftly.

For a variety of reasons, issues rarely reach the evaluator quickly or clearly. Part of the difficulty is the organizational distance between the evaluator and the people in charge of operating programs. In many instances, evaluators are isolated organizationally from the program office. Because of this separation, the analysts do not receive firsthand information on the issue. Either the analyst must wait until a formal request is made or rely upon informal contacts for information.

This filter-through process, poor as it is, represents only a part of the communication problems facing the evaluator. Frequently, the evaluator is either left unaware that a problem exists, or worse, is sent off in the wrong direction by policymakers or program managers. Simply put, information is not easily or readily shared in bureaucracies. Either through accident or intent, the sharing process falters. Program managers are not necessarily willing to let others—especially evaluators—in on the trials of the program because they fear what the findings of "no effect" could mean for continued funding and support.[2] Messages transferred

between evaluators and persons located elsewhere in the organizational structure become garbled, even when the senders have good intentions. This occurs because individuals in a bureaucracy pursue different goals, face different decisions, have different interests to protect, and sometimes think and talk in different languages.[3]

Evaluators, too, do not help matters in getting issues clarified. Analysts are inclined to pose issues in terms of the relationships between variables. Characteristically, the evaluator frames questions in a measurable way: Is age related to success in training? Is concentrated housing rehabilitation related to neighborhood revitalization? Policymakers, in contrast, want to know generalities, such as how to get young people into jobs and how to save neighborhoods. Obviously, the two parties, while focusing on the same area, are using different languages. The result, all too often, is frustration for both parties.

A related source of friction is that policymakers, who are the most interested in the content and decision-relevance of evaluation studies, view evaluators as preoccupied with "issues of validity."[4] To policymakers who must make time-critical programmatic decisions based on several sources of incomplete information (of which evaluation results are one), validity issues are considered weak ones. Evaluators, on the other hand, are concerned that their substantive findings will be challenged because of a poor research design[5] or that unwarranted conclusions will lead to inappropriate program decisions.

Hidden Data

Next in the line of barriers facing evaluation is the data problem. Rarely can evaluators sit at a computer terminal, gain quick access to selected data, and print out the needed information. Data files are much more difficult to obtain, organize, and gain access to in bureaucracies. To begin with, the data or their locations are often in the heads of the bureaucrats rather than listed in tidy codebooks. Without knowing who these key people are, the evaluator is at a loss.

It is not uncommon, for example, for one person to be in charge of large paper files which are organized for accounting rather than policy purposes. In these cases, retrieving and searching these records depends on the willingness of that person to cooperate with a request that deviates from the routine of the day and is probably considered of questionable value.

Even in those cases where the data are automated, quick access is not guaranteed. The data may need to wait in queue before being run, the software necessary to manipulate the data may not be written, or the cost of extracting the data may be very high. All this consumes time, *and time is what the evaluator does not have.*

Bureaucratic Resistance

Most of the deterrents noted thus far are caused by the size and complexity of organizations; however, the frustration of evaluation goes beyond circumstances resulting from those factors. In some instances, the obstructions are the product of conscious interference. Such roadblocks can come at any and all points in the evaluation process. They may enter at the outset of the process in the form of harboring data, or they may appear at the end as vetoes over reports. Wherever they occur, these are problems the evaluator must successfully overcome.

[1]Walter Williams, *Social Policy Research and Analysis* (New York American Elsevier Publishing Co , 1971)

[2]Rheka Agarwala-Rogers, "Why Is Evaluation Research Not Utilized?", in *Evaluation Studies Review Annual,* Vol 2, ed M Guttentag (Beverly Hills, CA Sage Publications, 1977)

[3]Martin Rein and Sheldon White, "Can Policy Research Help Policy?", in *Evaluation Studies Review Annual,* Vol. 3, ed T. Cook (Beverly Hills, CA Sage Publications, 1978).

[4]Gary B Cox, "Managerial Style Implications for Utilization of Program Evaluation," *Evaluation Quarterly,* 1, pp 499-508

[5]Carol Weiss, "The Politization of Evaluation Research," in *Cases in Public Policy-Making,* ed J E Anderson (New York: Praeger Publishers, 1976)

Strategies for Dealing with Bureaucratic Realities

The strategy for dealing with these bureaucratic realities relies on combining the techniques of rational, data-based evaluation methods with an understanding of the host organization and a knowledge of how to use the organization's resources. At the core of this strategy is the realization that neither methodology nor organizational knowledge is sufficient for in-house evaluation. While the technical components of evaluation are important to the veracity of analysis, they provide only half of the input. To apply these techniques effectively, the evaluator must learn the organizational system and cultivate the skills for gaining cooperation or assistance from the organization. In short, the evaluator needs two educations: one directed at techniques, which includes sampling, research design, measurement, statistical analysis, etc., and the other directed at the host bureaucracy, which includes knowing who has program information, who collects data on the programs, who can identify critical policy issues, who is interested in analysis, and who has leverage in getting policymakers to consider evaluation results. When these tools are used together, quick and usable evaluation can be produced.

Dealing With Deadlines

The combination of evaluation technology and organizational knowledge is clearly essential in addressing the first bureaucratic constraint, the time deadline. With a knowledge of the inner workings of the agency, the evaluator has a sense of which data and information can be easily and readily obtained. With such an array at hand, the evaluator can save valuable time by not attempting to secure information that may be theoretically worthwhile but not readily accessible. For example, in evaluating a job training program, completion rates may be available, but there may be little or no information on the extent to which completers gained marketable skills. While information on skills learned is

preferable to knowing only whether a person completed the program, efforts to secure such data might be out of the question given the deadline.

In the cases where there is a serious question about pursuing only the more accessible data, knowing the organization can again help the evaluator decide if the effort and risk required to collect the less readily available data are advisable. In particular, knowing the type of decision for which the data are needed can help determine what type of data to pursue. If the results are to be used in making a modest program decision, then the data requirements might be less stringent than if the decision were a major one.

While knowledge of the organization can help identify which information is available, sound research techniques may be needed to collect the data. Certain research techniques provide ways of locating useful data within the time allotted. One technique is judgmentally selecting a few large locations and using random sampling at these sites. This technique permits the evaluator to obtain a representative picture of the program at those locations while not consuming exorbitant resources in collecting the data. For example, the units selected might be entire training centers or whole housing complexes instead of individuals more widely dispersed. With such a sample design, several respondents can be interviewed at one time and place, thus speeding up data collection.

Another way of employing research techniques is through the careful use of surrogate measures. For instance, if a readily available measure of a problem appears to correlate highly with less available measures, then the most accessible measure among them can be used without additional data collection. Examples of useful surrogates are turnover rates for employment dissatisfaction and completion rates for skill development. These are crude measures, but they can capture or explain behavior or outcomes in selected situations.

Quasi-experimental and experimental designs can also aid in meeting deadlines. In these designs, the evaluator has some control over program introduction and variation.

For example, the evaluator might be able to take a program and randomly initiate it over time, first placing it in a few areas, then in more areas. In this way, the evaluator ensures quick feedback and a good design for assessing effect. (This, of course, is a luxury that internal evaluators may enjoy that outside evaluators may not.)

Dealing With Issues

Organizational knowledge and research technology can also be used to clarify policy issues. These range from using organizational skills in locating individuals with important policy insights to using research skills for such traditional tasks as conducting background literature searches.

Students of organizations suggest that one route to understanding the issues is through face-to-face meetings with policymakers and program managers. These are the people who make the decisions and are most likely to have a sense of the origin or reason for the issues. Also, for these people, the face-to-face approach is appropriate since they are comfortable with personal communication. It is their forte, and it fits with their tight schedules.

However, ready access to top policy or program people is not always possible, and they, too, may have a limited or biased understanding of issues. As a result, evaluators must be aware of others in the organization who have a sense of the issues, who have more time to examine and discuss them, and who can provide other perspectives.

Knowing who these people are and how to locate them is crucial. In many cases, they are heads of small divisions within the operating program. Because of their position, they have a multidirectional view of the organization. In any given day, it is not uncommon for them to meet with top policymakers and with people who are carrying out the program. From this dual contact, they have a picture of the issue from both the policymakers' standpoint and the field standpoint. Frequently, these people are the ones who can shed the broadest and best light on an issue.

While personal exchange, whether

it be with formal leaders or informal contacts, is vital to discerning issues, written agency documents also play an important role in deciphering issues. For legal reasons and reasons of accountability, administrators must spell out ongoing and proposed policy. More and more, agencies must put their intentions into writing before taking action. These written records can hold the key to understanding the policy issue. For example, at the Federal and State levels, memos to the field, draft regulations, and public hearings commonly outline policy issues. At the local level, written decisions of legal counsel, minutes of council meetings, and labor contracts all can be useful in understanding the issues.

Knowledge of general research sources can also be useful in issue definition. Familiarity with pertinent literature and sources of publicly gathered information can place specific policy issues in a more general policy perspective or suggest new and innovative ways of dealing with the issue. Energy conservation policy, for example, has borrowed from the pricing arguments of microeconomic theory as well as from the outreach features of agricultural extension services.

Dealing With Data

Vital to uncovering existing data is knowing who the keepers of the data are, what information they have, and where these people are located—all aspects of knowing the system. The keepers of the data, like the data, are found in many places. At times, the keepers are people in official sounding places, such as "Records" or "Data Processing." At other times, depending on the nature of the data needed, the keepers are individuals who monitor programs, or program operators themselves.

Ordinarily, the data at the monitoring and program level are the richest and most current but are in a raw rather than automated form. Additionally, at this level the data are often scattered about in many program locations. In these situations, the technical aspects of evaluation are critical. For example, if the most relevant data for a study are at the field level, carefully designed sampling can be used to collect data quickly and in representative form. Moreover, these samples do not necessarily have to be large. When the data cover a relatively new program or new regulatory or deregulatory action, even a small sample can be useful. The small sample will help ensure that a rapid feedback is obtained and will suggest whether more intensive sampling is warranted.

Effective use of sampling technology can be enhanced with a sound grasp of how new and ongoing programs work in the field. With such a grasp, the evaluator has a much better idea of where to look for program change in the maze of interactions. Without this insight, valuable time is consumed while poorly informed searches take place.

In addition to using organizational knowledge and evaluation technology to secure existing data, an evaluator who has a thorough understanding of the agency's agenda can predict many future evaluation requests, especially those that occur periodically. In essence, this knowledge will allow the evaluator to plan for future data needs and to begin building a regular, incoming data stream in anticipation of those needs.

These new informational flows need not always be constructed *de novo* but can be "piggy-backed" onto surveys or other reporting devices which are used in the field on a regular basis. A few extra questions, if chosen wisely, can enhance evaluation efforts without greatly increasing costs or resistance from the field.

For both existing and new data, there are a number of shortcuts that can be used to deal with delays and other problems connected with collecting data in a bureaucratic environment. One of these is a carefully built personal file of information relevant to one's program area. The value of such a file is rapid access, since it is under the evaluator's own control. The key is to find, retain, record, and update information on various types of program statistics, relevant legislation, important memos, and general literature. Photocopying tabular information collected in a case study, retaining computer printouts, and getting on regular agency routing lists all are extremely helpful in circumventing the data problems of an agency.

Another valuable technique for data gathering is the telephone interview. With only a few people calling the interviewees, a relatively large number of people can be contacted in a short time. The value of the phone is particularly evident when the needed information is spread in a wide geographical distribution and when it consists of personal assessments (e.g., characterizing management style, moral participation, etc.). In this case, the direct give-and-take of a phone interview can be essential in clarifying an issue and establishing rapport for later inquiries.

Admittedly, some of these suggestions for dealing with data problems involve duplicating the responsibilities of other parts of the organization, but the duplication is necessary. The division of labor in the bureaucracy, so beautifully designed to provide specialists to assist each other, does not always work smoothly. As a result, the evaluator must sometimes replicate parts of the system to ensure rapid turnaround.

Dealing With Bureaucratic Resistances

Among the several bureaucratic realities confronting program evaluation, bureaucratic resistance is perhaps the most difficult to deal with and overcome. In contrast to the other obstacles, which can sometimes be handled through persistence and technological know-how, bureaucratic resistance calls for knotty ethical decisions, considerations of power bases, and the ability to handle considerable personal pressure. Notwithstanding these ethical and personal demands, the dictum of organizational knowledge and technological sophistication can still yield benefits.

Bureaucratic resistance is a continuing problem for the evaluator and can occur at several junctures in the evaluation process, including initiating a study, keeping it afloat, and having it used. One of the problems

The European Branch: GAO in the Center of the Old World

Mack Edmondson, former assistant Branch director, ID/EB, coordinated input for this article from all EB staff He noted that everyone contributed ideas, paragraphs, or pictures and that the entire group enjoyed working together to develop the draft. Mack also told the *Review* that the American Consulate in Frankfurt was making copies of the article for its staff and for the consulate library

This article complements the Summer issue's article by Brian Conniff, entitled "Working in the European Branch Adapting to a Changing Work Environment," as well as the *Review's* recently completed series on GAO's regional offices

Frankfurt am Main, one of Europe's most important economic and banking centers, is also the home of GAO's European Branch (EB) Office. EB staffers claim they've got the best of the Old World and the New because an EB tour offers everything one could want in work experiences, travel, professional challenge, and living conditions. This article explains why the staff has such high regard for and continued attachment to the European Branch, while telling you about EB's people and what they do.

GAO's Presence In Europe

Following a 1952 GAO survey and mounting congressional interest, the European Branch headquarters was established in Paris that August. A field station opened in London at about the same time. Soon after, three additional European field stations opened in Rome, Frankfurt, and Madrid. The Branch, together with its components, was responsible for all GAO work in Europe, North Africa, and the Near East.

Most assigned personnel were attached to the Paris office, which did virtually all the work in Africa and the Near East. The heads of these four field offices answered to the Paris-based director, who oversaw the overall administration and technical functions of the Branch. In 1952, GAO had no International Division, so the director reported directly to the Comptroller General through the Assistant Comptroller General.

EB had plenty to do. After World War II, thousands of American troops were stationed in France and Germany. The U.S. European Command had its headquarters at Camp des Loges, near Paris, with many Army agencies situated throughout north-central and central France. EB's work plans also included the French ports, which received thousands of tons of Army and general reconstruction supplies; the U.S. Navy bases in Spain and England; and Air Force installations in France, Germany, and England. At the same time, U.S. embassies in Europe and the Middle East had contingents of the Military Assistance Program, the International Cooperation Administration (predecessor of the Agency for International Development), and usually the U.S. Information Service. With congressional interest in all these programs and activities, EB personnel had their hands full.

Paris in the Post-War Era

Despite the workload, EB staffers—especially those living in Paris—were lucky folk. France continued to celebrate the end of its occupation, and the atmosphere was almost euphoric during those first years. America's Marshall Plan (begun in 1948 with headquarters in Paris) was helping Europe rebuild, and Paris soon displayed the dramatic results. Paradoxically, bread was rationed for years, but consumer goods and entertainment abounded. Thus, there were new plays, musicals, operas, books, art shows, and lots of "new look" Parisian fashions. Staffers readily shared this excitement.

Prices were not exorbitant, and lucky Americans usually received a 15 to 20 percent discount on all purchases in department stores and specialty boutiques, if they paid with American Express checks. Staffers were housed on the French economy, usually in spacious and attractive quarters, and thus came into contact with French citizens every day. Our having to learn French made everything easier and helped us appreciate the joys of living in France.

Sumptuous Quarters

Our embassy assigned us offices in an 18th-century building that now houses the U.S. ambassador. According to EB's Edith Williams (who joined GAO in Paris in 1957), working in such surroundings was an inspiration—the rooms had beautiful paneling, 20-foot ceilings, parquet floors, and huge crystal chandeliers. An Italian marble staircase mounted to GAO's offices, where floor-to-ceiling windows overlooked one of the most famous private gardens in Paris. What a pleasure for those lucky enough to work there in those days! Just down the street was the Palais d'Elysees where the President of France lives. The British Embassy was next door, and all the deluxe shops were nearby.

The Move to Frankfurt

In 1963, our embassy announced it would not have space for GAO's offices in the future, and we should make other arrangements. Thus, EB moved its headquarters to Frankfurt in June 1964 and occupied the home of its former suboffice. The move was well timed because only 2 years later, President Charles de Gaulle decreed that NATO and all American troops must leave France. The Branch was therefore in place and functioning smoothly when the bulk of U.S. defense agencies, troops, and related operations relocated to Germany.

By the mid-1960's, the European field stations in London, Rome, and Madrid closed, and the Frankfurt

staff handled GAO's work throughout Europe, Africa, and the Near East. Thus, Frankfurt became the home of EB and remains so to this day.

Frankfurt: Our Home Away From Home

Frankfurt am Main is the largest city in the German state of Hesse, with a population of about 700,000. Germany's commercial and financial center serves as the "Gateway to Europe." Its airport leads Europe in commercial handling and is second in passenger travel, while its five railroad stations put one in touch with the entire continent. The first autobahn (still no speed limits) originated in Frankfurt.

This inland city is an important port located where the Main River is easiest to cross. Documents first mention the city in 794, when Charlemagne held a Franconian imperial synod in his "villa franconofurd," named for the Franks who forded the river at this point.

A City of History and Tradition

Frankfurt has a long and distinguished history of which it is justifiably proud. Its Trade Fair has been in existence for 800 years. A city of books and finance for centuries, Frankfurt is known in many technical fields as the world's leading industrial exhibition center. In the 16th century, she received the right of coinage. In the 18th and 19th centuries, her banking houses held a leading position in economic affairs and achieved world recognition through the banker Rothschild, whose five sons founded branches in Paris, London, Vienna, and Naples. Today Frankfurt is Germany's financial capital and the seat of the Bundesbank, the equivalent of our Federal Reserve. As the center of German book trade and publishing business, Frankfurt annually sponsors an international book fair.

Traditionally, Frankfurt has been a city of emperors and politics. For 300 years it was the coronation city of the Emperors of the Holy Roman Empire, a privilege it retained until 1806. Frankfurt remained a free city until

Downtown Frankfurt with a view of the Main River. (Photo courtesy German Tourist Office, Frankfurt.)

1866 when Prussia took it over. Virtually destroyed during World War II, the city was for 5 years afterward the seat of the American military government and of numerous allied offices. West Germany was then governed from Frankfurt, a role which passed to Bonn in 1949.

Until the war, much of the original city kept its beautiful, dignified, and partrician character. Now almost nothing remains of the old buildings and crooked medieval alleys. Postwar reconstruction in the original style was confined to a few historical buildings, among them Goethe's birthplace and the city hall, where emperors were once crowned. Its skyline, now bristling with tall glass buildings, marks the city as a child of the second half of this century.

Links Between the Old World and New

Frankfurt has had enduring and illustrious ties with the New World. The first German settlers in North America, Protestants from Hesse

and Alsace, reached Port Royal, in present day South Carolina, around 1562. Peter Minuit, the shrewd tradesman who in 1626 bought Manhattan from the Indians for about $27 in beads, cloth, and peace pipes, came from a nearby region. New York's first governor, Jacob Leisler, was another Frankfurt resident.

Early visitors to Frankfurt included William Penn, Benjamin Franklin, and Thomas Jefferson. In 1788, Jefferson visited Frankfurt during his tenure as Minister to France and reported his amusement at learning "the origin of whatever is not English among us. I have fancied myself often in the upper parts of Maryland and Pennsylvania." Eighteen American cities, spread from Maine to Kansas and from Alabama to South Dakota, are named Frankfurt or Frankford.

Famous Frankfurters who have made international contributions include Johann Wolfgang von Goethe, poet laureate of the German-speaking world; Philipp Reis, inventor of the telephone (contrary to American folklore, he beat Bell by 17 years);

Otto Hahn, Nobel laureate in physics; and Dr. Kurt Debus, director, John F. Kennedy Space Center (1963-1974). Other notables include composers Engelbert Humperdinck and Paul Hindemith, conductor Georg Solti (currently of the Chicago Symphony), and painter Max Beckman.

The Cultural Scene

Our museums alone provide sufficient incentive for a visit to Frankfurt. They include the following museums with their particular specialties:
• The Museum of History on the Romerberg, sculpture from the Middle Ages to the present day.
• The Museum of Ethnology, Third World art and artifacts.
• The Postal Museum, development of communications from antiquity to the present.
• The "Stadel," fine art from every period.
• The Goethehaus and Museum, a comprehensive picture of an upper class intellectual's life in the 18th century.
• The Museum of Natural History, a million years of human, animal, and mineral history.

If an enjoyable evening's entertainment in a foreign city means the theater or a concert, Frankfurt will suit your taste. There are theaters large and small with a wide range of repertoires, some presented in English. The city's ultra-modern "Stadtische Buhnen" houses an opera house, theater, and a small concert hall. In August 1981, the Old Opera House reopened. Destroyed in the war, the structure was faithfully rebuilt in period design but garnished with surprising touches of modern paintings, electronic/lucite sculptures, and sizzling colors.

If you're a jazz fan, you've come to the right place: Frankfurt leads the German jazz scene. Concerts take place every Sunday morning in the Museum of History's courtyard; during summer months, every Thursday evening in the Palmengarten; and at unannounced times beneath the Hauptwache in the city's major underground shopping mall. On Sunday mornings, one can enjoy brunch at the Hotel International, which features traditional New Orleans-style music.

Typical apartments housing EB staff in Germany. (Photo by Dave Jakab.)

A nearby community playhouse in the military housing complex attracts many talented members of the U.S. forces and agencies, including some EBers. And Frankfurt's professional Cafe Theater presents the works of English-speaking writers.

Living and Working in Frankfurt

Frankfurt sits on a wide, fertile plain, almost completely surrounded by high hills and low mountain ranges, which are occasionally visible. We have four seasons, much like those of the northeastern United States, with quite a bit more rain. But when the sun does shine, the people stroll, bike, sun, and swim at the pools and lakes (where one may bathe either suited or unsuited).

We live in a housing area operated by the State Department for employees of the consulate, attached agencies, and some higher ranking military officials. This area, officially known as the "Carl Schurz Siedlung," lies on the northwest outskirts of Frankfurt. The Siedlung includes 383 apartments, 3 tennis courts, a basketball and volleyball court,

The German Bundesbank and Park, next to the EB housing area. (Photo by Dave Jakab.)

gardens, a field house, and a nursery school. Green lawns, picnic tables, and shade trees provide comfortable spots for barbecuing and relaxing with family and friends. Our apartments are large and quite nice, and we feel the Siedlung is an interesting and pleasant place to live.

The EB office is in the consulate annex, which is actually two apartment buildings converted into office space. We occupy one-and-a-half floors of one building, with round-the-clock Marine Guard security.

Best of all, the office is a 2- to 10-minute walk from our apartments. Because the Siedlung is only one block away from a major traffic artery feeding into a complex of super-highways, we can get on the road—for the day's work or the weekend's pleasure—within minutes and never see a stoplight. Frankfurt's excellent mass transit system is also near. The underground (U-Bahn) takes us all over Frankfurt. We can also transfer to the suburban railway (S-Bahn) and visit nearby towns, or transfer to the main train station, which connects with major European cities. The German trains are immaculate and always on schedule.

Driving is convenient and swift on Germany's superhighways. There are no speed limits, although signs frequently recommend that drivers go no faster than 80 m.p.h. Hence, we can easily reach Austria, France, Switzerland, Holland, Belgium, or Luxembourg within 4 to 6 hours.

The consulate helps us in many ways. In addition to providing telephone switchboard, cable and tele-communications. and check-cashing services for the office, it also registers our cars, gets them inspected, and obtains German drivers licenses and internal passports for all our personnel. Moreover, it expedites our moves of household goods to and from the Frankfurt post and sees that our apartments are meticulously maintained. The consulate also assists with obtaining military ID cards (required for shopping at PXs), issues gas-purchase ration cards, and occasionally arranges introductions to or meetings with German businessmen or government officials.

One Woman's Perspective

Nancy Adair, wife of EB staffer Perry Adair and mother of two boys, has been here for 2 years. She offered the following comments on the EB living experience.

Women have many unique opportunities in Frankfurt. Career women often wonder what they will do in a new country, but those who want to work, can. Hospital, school, and office personnel are easily placed. Others may look a little longer to find their career specialties or may try a new field. Several women have sold travel articles to magazines, started their own businesses, or taught classes in crafts and sports. Other women make traveling a full-time career. While many enjoy traveling to job sites with their husbands, others get together in groups and plan their own trips.

Mothers are not apartment-bound, either. Day-care centers, nursery schools, and neighborhood babysitters allow them free time to take short trips, shop, or enjoy some of the local cultural opportunities. Some women like to exchange baby-sitting to enable each other to take longer trips with their husbands. But they don't always leave the kids behind. Between the museums, zoos, castles, and parks, families can truly enjoy Germany together.

Middle Eastern countries. We collectively logged over three-quarters of a million air miles.

Our staffers get a pretty fair balance of at-home and on-the-road time. During 1981, travel averaged approximately 22 percent of staff's total working hours, with our GS-12s and 13s traveling the most.

Most of our assignments in Germany are within a 3-hour drive of Frankfurt, allowing a quick return home on weekends. Thus, privately owned vehicles usually get a good workout when staffers are working and dining on the "Schnitzel Circuit." Traveling in Germany is invariably easy.

Traveling throughout Europe and the United Kingdom usually involves rail and/or air service. Many staffers
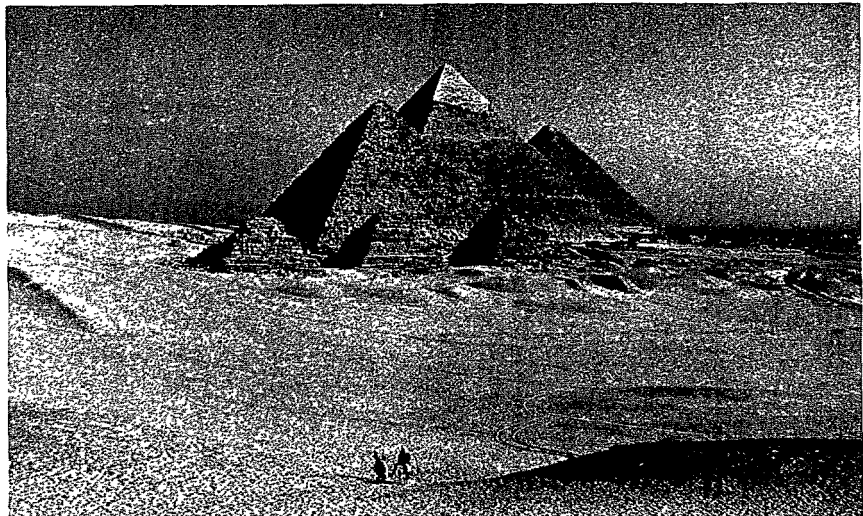
Pyramids at Giza, Egypt. (Photo by Dave Jakab.)

The European Branch Today

The European Branch—now part of the International Division—has a vast territorial responsibility. In fact, it would be almost impossible to visit all the countries in EB's territory during a normal 4-year stay in the Branch. We cover Europe, Greenland, Africa, and the Middle East to the eastern border of Pakistan.

Getting There Is Half the Fun

During calendar year 1981, EB staffers worked in 17 European, 3 eastern European, 16 African, and 4

prefer reliable European trains to conventional air travel, but either is comfortable. While some EBers have been caught in the midst of Italian train strikes, French border searches, Iranian civil war, and British air controllers' slowdowns, they claim that, in retrospect, such "happenings" only make their trips more memorable.

Staffers who've traveled to Africa, Asia, and the Middle East usually have much to recall. They claim that while one can learn to cope with *anything,* stamina and determination are a must. And what they can learn to cope with frequently includes a smorgasbord of shots and pills prior to departure, 2 days in transit to their destinations, lost luggage upon arri-

·al, either running water or air condi-ioning at hotels (but rarely both ·im·iltaneously), and omnivorous in-sects. Moreover, they may be away 6 .·eeks at a time. But EBers rarely complain, and a fair number have en-joyed returning to Africa and the Mid-dle East time and again.

⸂ne Focus of Our Work

Our work usually relates to the Defense and State Departments, the Agency for International Develop-ment, and allied agency activities within our assigned territory. Al-though we have spent almost equal amounts of time in defense and for-eign affairs activities, we also do work for CEDD, FPCD, HRD, and oth-er Washington GAO divisions. And

and puts us in touch with dozens of U.S. embassies, consulates, and mis-sions. We enjoy good working rela-tionships with the military head-quarters and the embassies. And we depend on their helping our work and supporting our review teams so that we can serve GAO's interests.

The following sketches of recent and ongoing work reflect the range of issue areas and sheer diversity of assignments handled by EB.

Military Preparedness and Logistics Reviews in a NATO Environment

Should the Warsaw Pact forces launch a surprise attack on Western Europe, American and Allied Forces permanently stationed in West Ger-

European Branch staff reviewed the Emergency Deployment Readiness Exercise to assess how quickly U.S. troops can mobilize. (Photo by OCPA Photo Team, HQ USAREUR & 7A.)

we sometimes perform studies of foreign governments' programs. In many respects, we're like a regional office in the United States.

Most of our defense-related work occurs in Germany, where there are three major U.S. military head-quarters: the United States European Command, in Stuttgart; Headquar-ters U.S. Army, Europe, in Heidel-berg; and U.S. Air Forces in Europe, at Ramstein Air Base. We also do various military work in the United Kingdom, which has the Headquar-ters U.S. Naval Forces, Europe, lo-cated in London. Our foreign affairs, trade, and development assistance work takes us all over EB's territory

many would bear the brunt of the in-itial assaults. Military preparedness in Europe, therefore, means readi-ness for both immediate and sus-tained combat. The U.S. European Command and NATO are working hard in both areas, and the Branch reviews the associated programs.

In recent years the Branch has par-ticipated in several highly controver-sial reviews of DOD/NATO anti-armor weapon capabilities and anti-aircraft programs, U.S. combat interoper-ability in NATO, and U.S. participa-tion in the NATO Infrastructure Pro-gram.

Procurement

The complex procurement process in Europe consists of central, re-gional, and ordering offices. The mil-itary handles the largest part of pro-curement activities in Europe. During fiscal year 1981, the military in Europe procured about $1.8 billion in goods and services. Construction ac-counted for about 25 percent of this total. The remainder included mis-siles and rockets, fuel storage and handling, operation of Government-owned plants, and general supplies and equipment.

Procurement reviews offer staff members a wide variety of assign-ments with professional and per-sonal opportunities. We regularly ad-dress procurement issues affecting the United States and our NATO al-lies. For example, the Branch par-ticipates with auditors from Belgium, Denmark, the Netherlands, and Nor-way in resolving procurement issues on the multibillion-dollar F-16 fighter program.

Communications

In recent years, the Department of Defense has emphasized the com-mand, control, and communications (C3) aspect of military operations. Numerous C3 improvement pro-grams costing billions of dollars are in the planning stages or underway in the European theater. Accordingly, EB has worked steadily in the area during the last several years, with lead responsibility in several instances. Our work has included several satellite communications programs, electronic counter coun-termeasures (ECCM), the Defense Communications System in the Euro-pean theater, and theater nuclear forces C3.

Although most U.S. forces in-theater are in Germany, we have re-cently visited U.S. Navy offices in London and Naples, U.S. Air Force offices in Berlin and Turkey, as well as the U.S. Mission to NATO in Brussels.

Support Services for the Military Community

While much of our military-related work is in logistics and readiness, we

also oversee the many essential services and functions that support a peacetime force in Europe. For example, we found that operating costs could be reduced and services improved by streamlining the commissary support system.

Our children attend DOD Dependents Schools which educate about 90,000 children in Europe in some 200 schools. As one would expect, managing a school system spread from the Azores to the Philippines presents unique logistics problems. Yet we concluded that the education in those schools compares favorably with that in stateside schools.

Personnel Management

The American military presence in Europe has necessitated various reviews for GAO's Federal Personnel and Compensation Division.

The United States currently has over 300,000 service members permanently stationed in Europe. Readiness is a must because mobilizing and deploying additional forces may not be possible with little warning. Thus, the Congress needs to know whether these high priority units are properly manned, trained, and equipped to readily perform their missions.

With over 300,000 service family members also stationed in Europe, the Congress is also interested in the civilian population abroad. Living and working in Europe can be a considerable adjustment for service members and their families. The differing languages, currencies, customs, and, above all, the constant emphasis on military readiness, can really challenge a service family.

Within the past year, we have addressed such topics as measuring soldier skills, the effectiveness of single and in-service parents, duty time devoted to family and personal problems, cost-of-living allowances, and soldier education.

AID and Development Assistance

One of the most interesting experiences EB offers is an ID-programmed development assistance assignment to Africa or the Middle East. These assignments usually involve the U.S. Agency for

International Development (AID) and cover such topics as population control, agriculture development, health care, refugee relief, and international disaster assistance.

Although AID continues to be a minor donor in most African countries, the United States provides more economic assistance to Egypt than to any other country in the world (over $800 million in 1981). This help has fostered recent progress in Egypt and the African continent. We expect this development assistance work will continue, given U.S. commitment to humanitarian and national security interests.

This work often takes EB staffers to exotic locations. Some of our staff

Rich Stana (l.), EB staffer, discusses U.S. refugee assistance with a Chadian refugee through an interpreter (r.).

have visited Peace Corps volunteers in remote jungles, refugee camps in southern Sudan, and water projects in the Sahel. But there are compensations: field trips and weekend travel provide such experiences as wildlife safaris, visits to the temple at Luxor, a glimpse of Victoria Falls, and camping within sight of Mount Kilimanjaro.

U.S. Trade and Financial Interests

Through its parent organization, the International Division, EB receives assignments that help the

Congress to consider changes relating to international trade and discover ways to improve the nation's exports and financial position.

EB also studies European countries' policies and strategies for dealing with their export/import and financial interests. Recent assignments included U.S. and European bank lending to developing countries, U.S. trade with NATO allies, the value-added tax mechanism in Europe, taxation of Americans living abroad, and U.S. efforts to promote exports by small-to-medium business firms.

The Branch stays abreast of significant international trade issues by monitoring trade-related publications and policy statements emanating from the European Economic Community's headquarters in Brussels and similar documents from the Geneva headquarters for the General Agreement on Tariffs and Trade (GATT). This monitoring assesses the implications for U.S. interests and whether a GAO survey or study might help the Congress.

International Relations

Reviewing programs in security and U.S. international relations brings us assignments with unique travel opportunities. One recent review entailed visiting overseas offices of the U.S. International Communication Agency (USICA) to (1) evaluate their management, (2) ask about headquarters support for their activities, and (3) check how well program goals were articulated and achieved. We worked with ambassadors, USICA officials, and other embassy personnel in the United Kingdom, the Netherlands, Greece, France, Yugoslavia, Poland, Kuwait, South Africa, Nigeria, and Tanzania. USICA subsequently established a special committee to respond to the problems of focus, management, and support found during GAO's review.

In another review, we helped to evaluate the State Department's overseas security measures to protect U.S. citizens and property in "high threat" posts. We assessed a multi-million-dollar security enhancement program mandated by Congress. Attacks on U.S. personnel and facilities

ꞁ Iran and Pakistan sparked this pro-ram.

ꞁnergy and Related ꞁechnologies

World events and subsequent congressional legislation have focused attention on the international energy ꞁ꞉rket. Part of our work in Europe ᴜ꞉꞉ails evaluating U.S. participation in international energy organizations ꞁhat coordinate policy about the ꞁvailability, use, and distribution of worldwide energy supplies. Two such organizations are the International Atomic Energy Agency (IAEA) in Vienna and the International Energy Agency (IEA) in Paris. At the IAEA, for example, we evaluated the effectiveness of the U.S. efforts to improve the agency's international nuclear safeguard system. This formed part of GAO's overall assessment of the Nuclear Non-Proliferation Act of 1978. At the IEA we reviewed the impact on U.S. oil reserves when the agency must respond to short-term oil supply disruptions like those which occurred during the past decade.

International Organizations

EB's territory contains some of the world's foremost international organizations. These include the Organization for Economic Cooperation and Development (Paris), the U.N. Food and Agriculture Organization (Rome), and the U.N. Industrial Development Organization (Vienna).

EB teams usually work at several of these organizations each year, arranging the visits, conferences, and interviews through the official U.S. mission attached to each entity. Frequently we review U.S. interests and extent of participation in these organizations. On occasion we visit them for technical studies and expert opinions on specific U.S. programs and initiatives.

Branch Organization and Personnel

The Branch's work is ably guided by its director, Fred Layton, and two assistant Branch directors, Jerry Huffman and Dick Price. Traditional-ly, one assistant manages International Division work, while the other covers defense-related work. Thus, they handle an average of 20 jobs at any one time.

Remembering developmental needs and stated subject area preferences, EB strives to give staff a diversity of work experiences and travel opportunities. After their second or third year in EB, people who plan to return to a particular division or region concentrate to the extent possible in such specific subject areas as military readiness, communications, or foreign aid programs.

Staff representatives help guide the Branch's operations. EB's most active group is the Career Level Council, currently chaired by Jack Belz. The CLC recently surveyed GS-12 perceptions concerning Branch management practices, EB operations, and work trends. The Mid-Management Council, chaired by Dan Spengler, also contributes ideas and opinions to EB's management staff.

Meet the Branch Staff

In addition to the Branch directorate, 36 evaluators and 5 support staff work in Frankfurt. EBers make up a good cross-section of GAO employees; 9 of the Washington divisions are represented and 11 of the 15 regional offices. There's about a 50-50 split between headquarters and field alma maters, with ID, HRD, MASAD, and PLRD providing the strongest representation from Washington. Denver. Seattle, Los Angeles, Boston, and Washington regional offices carry the FOD banner.

The living environment and challenging work must agree with the staff, since almost everyone signs on for a second 2-year tour.

Our administrative support staff provides stability and continuity. The director's secretary, Edith Williams, and our travel specialist, Louise Markray, have 27 years of EB experience between them. Edith has worked for 10 Branch directors. Ann Wylie, Margie Walter, and Susan Roiger form the rest of our "backbone."

Outside Activities

An important work-related outside activity for the Branch is the Central Germany Chapter of the Association of Government Accountants (AGA). Five EBers have been nominated for AGA's Board of Directors this year.

Living and working in foreign countries naturally creates some interesting language challenges for EBers. In its "language bank," EB currently boasts German, French, Italian, Spanish, Arabic, and Hebrew.

Recreational opportunities abound. Superb ski slopes are only hours away by car or bus. The Frankfurt International Tennis Club—located right in our housing area—remains a focal point during our all-too-brief spring and summer months. GAO staffers put in a full winter season with the American Consulate Bowling League. It couldn't be more convenient: the lanes are only a block away! Come spring, GAO teams up with the Marine Detachment and other consulate employees for a slow-pitch softball league. And some play basketball with a German sports club—an excellent way to get to know our German neighbors and sharpen our language skills.

German Sights and Scenery

Both U.S. airlines and Germany's Lufthansa have daily flights from major U.S. cities to Frankfurt, with connecting flights available to European cities. Here one can buy a Euro-Rail Pass for economy and first-class comfort. The excellent train service takes you to most German towns. You can visit 16th century framework houses in Bernkastel's market place, the walled medieval town of Rothenburg, the cathedral in Cologne, or the Black Forest of Bavaria.

The scenic little Bavarian towns of Garmisch and Berchtesgaden, surrounded by majestic mountains, are within easy reach. Through the Army's recreation centers, one may ski or hike in the immediate area or tour King Ludwig's famous castles, Neuschwanstein (the inspiration for Disneyland) and Linderhof.

Closer to Frankfurt, a Rhine River cruise on Sunday afternoon can be enjoyed by the whole family. Between Bingen and Koblenz, the river winds through a narrow valley with vine-covered hills dotted with castles.

No trip to Germany is complete

without a visit to Berlin, whose modern buildings, world-famous symphony orchestra, and cabarets and nightlife leave indelible impressions. Here you can cross the Berlin Wall to see life in the East Sector. Nothing can prepare you for the drama of passing back through Checkpoint Charley into the freedom and beauty of life in West Berlin.

Only an hour's drive from Frankfurt lies Heidelberg, authentic scene of the operetta "The Student Prince," and home of Germany's oldest uni-

The "Apple Wine Express" trolley in downtown Frankfurt. (Photo courtesy German Tourist Office, Frankfurt).

versity (since 1386). From the mountains above the city, one can see the old castle and the town spread below along the banks of the Neckar River.

Heidelberg gives you Germany's marvelous diversity in a nutshell. Here you can find prehistoric, Celtic, and Roman remains. Within the old city, you'll find the 15th-century Holy Ghost Church, renaissance-period student taverns, discos, and jazz clubs.

Holidays and Festivities

We in EB love to participate in the traditional celebrations, both religious and secular, which the Germans have cherished over the

centuries. The world-famous Oktoberfest is certainly the biggest festival paying tribute to German brewing skills, with the best beer of all available in Munich. In addition, one may find hundreds of small and large wine festivals throughout Germany, where one quickly learns the meaning of the term "Gemuetlichkeit"— the German word for cordiality and comradeship.

Christmas is a very special time of year in the land which gave us the custom of decorating a pine tree, or "Tannenbaum," for the holidays. Nothing imparts more of a festive atmosphere than a visit to the Christkindlmarkt in Nurnberg, where vendors offer beautiful handmade ornaments, tasty Lebkuchen, and hot, spiced Gluehwein to ward off the chilly weather.

We no sooner wind down our Christmas and New Year's celebrations than the German "Fasching" season begins. Like Mardi Gras, this 6-week season culminates with spectacular parades and gigantic costume parties. During Fasching even the most staid Germans cast aside their inhibitions and don bizarre and outlandish costumes.

Food and Drink

For many of us, eating our w? across the European continent is ? continuing highlight of our EB tour. ? German meal represents the epitome of fine food at a reasonable price. Although German restaurants are ofte? relatively small, family-run enterprises, most offer a good selection and provide generous portions. As you travel, expect to find sever?' dozen varieties of excellent wur?' and countless variations in the basic (veal) schnitzel. These two entrees usually form the nucleus of a hearty dinner. Regional favorites are well worth a try, particularly Bavarian schweinehaxen (pigs' knuckles) and smoked Black Forest ham. Good food naturally requires the company of good drink, and Germany produces beer and wine in tremendous quantity and quality.

While comprehending the menu may be the major obstacle facing most Americans, an awareness of certain dining customs is also important. The waiters bring each individual's plate as it is ready, so if you are served before anyone else, it is perfectly acceptable to begin eating. Probably the most appreciated custom is the inclusion of both tax and tip in German menu prices.
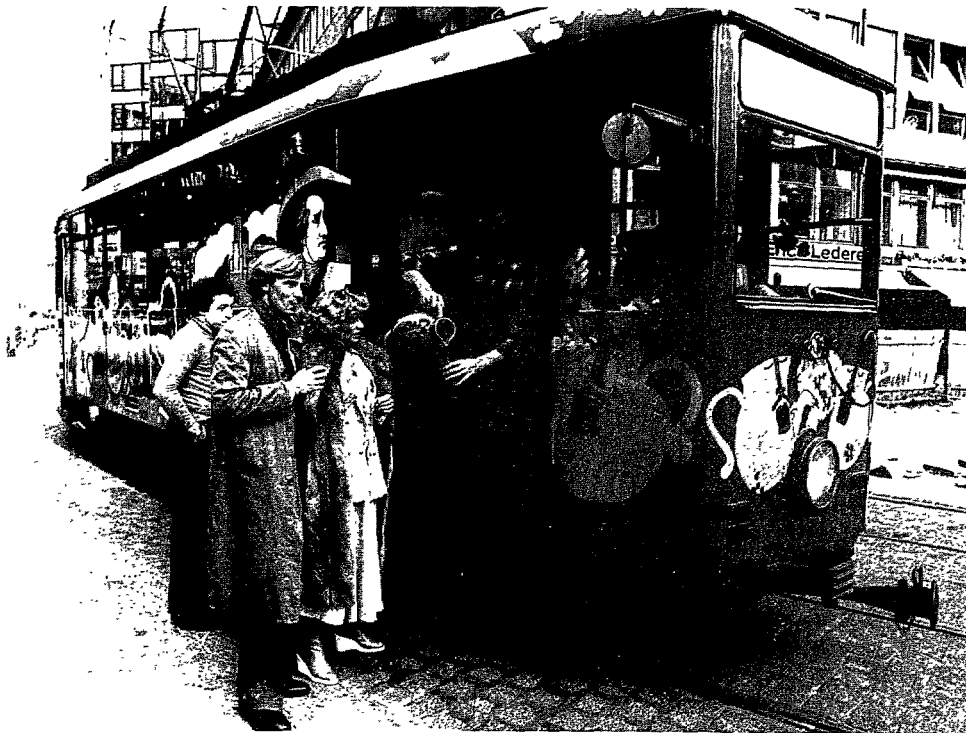
A Word From the Director

Fred Layton became the director of the European Branch in the summer of 1980, after serving for 4 years as manager of the Boston regional office. Now, after 2 years in Frankfurt, Mr. Layton offers the following comments on the Branch and staff.

"We seek to (1) improve our products and relationships with our headquarters customers, (2) maintain good relations with the European military commands and U.S. embassies throughout our territory, and (3) help our staff develop. We are especially proud of our rigorously selected EB staff. In 1982, more than 50 applicants competed for 4 vacancies.

While part of the International Division, our operations resemble those of other GAO field offices. Our work-

The Nature, Definition, and Measurement of Quality in Program Evaluation

Eleanor Chelimsky

Mrs Chelimsky is the director of GAO's Institute for Program Evaluation Prior to joining GAO in 1980, she held positions with the U.S Mission to NATO and the MITRE Corporation. Mrs. Chelimsky received a B.A degree in economics from the University of Maryland and did graduate study there in political science She was a Fulbright Scholar in Paris and received the Diplome Superieur from the University of Paris

What do we mean by quality in program evaluation? How can we define and measure it so that we can see if *we are improving it? These are basic* questions of evaluation management, questions which are raised almost continually by managers and staff at GAO and elsewhere. But these questions have tended to receive somewhat unsatisfactory answers largely because there exists neither a clear consensus on the subject nor an adequate operational definition of what may constitute evaluation quality. Yet managing evaluations requires *some* sort of system for measuring, improving, and accounting for their quality. Definition is at the heart of any such system.

Defining evaluation quality, then, may well be basic to the task of improving it. But such definition is not easy because quality is relative to an observer (i.e., quality in one place or to one person may not be quality in another place or to another person), and because quality is relative also to the conditions imposed on the work.

Nonetheless, sooner or later all evaluation managers must develop a way of defining and measuring the quality of their products, both to maintain their excellence and usefulness and to ensure their continuing improvement. But somehow, evaluation staff members tend to resist managerial edicts that a piece of work "took too long," "cost too much," or was "lacking in quality." They point out that such criticisms are unhelpful either in clearly identifying what went wrong or in explaining just what it is that should be done differently next time. Put another way, these kinds of criticisms do not generate objective measures capable either of describing current performance or of accounting for future progress.

In effect, if it is said that a job "took too long," then the question must be answered: How much time should it have taken? Yet such a question cannot be answered in and of itself. The time a job would take depends, among other things, on the job's difficulty, on the importance of the subject, on the staff's expertise, and on whether the user needed the job at a certain date. Thus there is no simple way of determining how long a job should take without also considering other factors. Again, if a manager judges that a job "lacked quality," what then is the "right" way to do the job? That again depends upon such things as the costliness, feasibility, and applicability of different designs, the time it would take to execute them versus the time available, and, of course, the difficulty of the question posed relative to staff capabilities. The problem with assessing quality by itself is that the "right" way to do a job can only be determined in terms of the question posed and in terms of cost, time, and feasibility constraints.

Another difficulty in looking only at particular aspects of job quality is that, taken separately, the aspects cannot inform us on the whole job, on whether we are moving forward or backward, or on whether our evaluations are improving. Reducing time on a job might be at the expense of augmenting cost and diminishing quality. Reducing cost might preclude using the only design allowing a relevant answer to a sponsor's question. Reducing rigor of design might not increase rapidity or decrease cost. Therefore, looking at in-

dividual factors, such as time, cost, or quality, can paint a misleading picture both of current performance and of likely or possible future progress.

What seems most important in arriving at a definition of quality, then, is to understand and account for the dynamic relation among the quality, the time spent, and the costs of a job. It is the nature of this relationship that allows (1) an overview of the evaluation process, which can inform managers and staff on what is strong, what is weak, and what needs improvement in their performance; and (2) the development of measures which can track changes in that performance over time. In GAO's Institute for Program Evaluation (IPE), we have been structuring a management system based on such a definition. This article documents our efforts in that area.

Defining Evaluation Quality

The definition of evaluation quality, then, needs to involve a set of relationships. Like all such definitions, it requires the simultaneous processing of several elements of information. For example, the technical soundness of a report defined in this way would be determined as a function of the time allocated to is performance, the costs required to produce it, and the adequacy of the approach, methodology, or procedure employed.

This is not, of course, to assert that evaluation quality in a report is exclusively a matter of technical soundness. On the contrary, to fulfill the purposes of doing any evaluation in the first place, that evaluation needs not only to be technically sound but also to be useful, if it is to have impact. Therefore, the definition of evaluation quality being proposed here necessarily includes two components. Let us call them *technical adequacy* and *usefulness*.

Technical Adequacy as a Component of Evaluation Quality

The notion of technical adequacy, reflecting that of evaluation quality, is relative because it depends upon the requirements or constraints put upon the work whose technical adequacy is to be assessed. These constraints must always include the type of information to be produced (i.e., the kind of question posed) the funds available to produce the information, and the time given for producing it. As with quality, there is no such thing as "absolute" technical adequacy; that is, conclusions about technical adequacy, to be properly drawn, must take account of the constraints. For example, all questions are not necessarily "evaluable." Some are so broad that they cannot be answered. Some involve assumptions that are difficult to test in the field. Some presume expertise that is beyond the state of the evaluative art. Yet it goes without saying that even the most rigorously planned and executed evaluation would have to be considered inadequate if it were designed to address the wrong question (that is, a question different from the question posed). Again, a technically sound evaluation that came in 2 years too late and cost more than its topic justified would indicate that the design chosen was overly ambitious, with respect to the resources available.

The point here is that the relative nature of technical adequacy, like that of evaluation quality, again imposes a definition requiring a balance among various elements. The first factor to be considered in the technical adequacy component, then, is that of design, since it is the design process which refines and establishes the evaluation question and which resolves, at the start of an evaluation, the problem of meeting an information need reasonably, within time and cost constraints. Therefore, managers should first measure technical adequacy at the end of the design phase, examining issues such as the following: Was the evaluation question well defined? Was it "evaluable," or did it need modification? Was it renegotiated with the sponsor? Is the design, as it now stands, powerful enough to answer the evaluation question posed? Is it too powerful, perhaps? Does it call for the collection of massive amounts of data that aren't really needed for answering the question? Does it involve unnecessarily elaborate procedures—given the question—which may be eleg??? but which will increase the cost and take too long? Is it feasible to perform?

An important factor in technical adequacy is, therefore, *the appropriateness of the evaluation's design for answering the question posed, within the time and cost parameters assigned.* Managers and staff can gain two advantages by reviewing these and other issues at the end of the design phase. The first is building in considerations of quality, time, cost, and feasibility very early in a job; the second is setting up a baseline of expectations against which the finished evaluation can be compared.

Let us say, then, that we have a question that can be evaluated and that an appropriate design has been developed: a design which is technically sound and which considers time, cost, and feasibility constraints. Next, managers and staff are faced with the challenges of implementing or executing that design, so a second technical adequacy factor comes into play, which also influences evaluation quality. That factor has to do with the way the work was carried out, and once again, it is a matter of appropriateness; it is relative. In assessing technical adequacy at the end of a job, then, the manager can address issues such as the following: Did the site or case selection process make sense in terms of the evaluation question asked and in terms of the resources available? How well did the design work? Did staff have problems applying it in the field? If so, how were these problems resolved? How conclusive is the evidence obtained relative to what was expected (based on the design) and what was needed (based on the question)? Was a carefully developed data collection instrument used to ensure that the data collected were those required by the design? Were interviews conducted in a manner allowing quantitative and/or qualitative analysis (that is, was the interview instrument formatted with forethought regarding the mode of analysis to be performed)? Were the statistical tests applied appropriate? Do the conclusions and recommendations flow from the design and from the work performed?

In reviewing technical adequacy, it , important to remember the number)f viable options and correct ap-)roaches which may be employed vith respect to both design and ex- :cution. There is no perfect strategy; ~?ny strategies are possible for al- nost every question. However, it is also true that every option usually mplies some trade-off with another)ption. "Getting something" typ- cally means giving up something Jlse. This is the main reason for con- sidering the advantages and disad- /antages of various design and execution strategies at a job's initia- tion phase and for returning to them during the course of execution, if ,,ced be.

Defining the component of tech- nical adequacy, then, does not stop at consideration of the evaluation de- sign. It also involves a second factor: *the appropriateness of the eval- uation's execution in terms of the de- sign selected and the resources in- volved.*

Even though both of these first two factors are defined as relative, managers and staff can nonetheless use them to arrive at fairly precise judgments about technical adequa- cy. In the case of the first factor, design appropriateness, one possi- ble design option, is compared with another in terms of time to comple- tion (given, for example, a cus- tomer's need for speed), in terms of cost (when two designs do about equally well in answering a question rapidly), in terms of likely feasibility (data availability, for example), and in the traditional terms of information conclusiveness (i.e., the relative pow- er of each design). In the case of the second factor, execution appropri- ateness, performance is compared, first, to what was expected at the end of the design phase with respect to time, cost, and evidence obtained; and second, to other evaluations in- volving similar problems of execu- tion.

A final factor, however, can add to the general precision by including one nonrelative concept of technical adequacy. This has to do with the le- gitimacy of the technical approach and procedures employed. Although there are many correct approaches to evaluation design and execution, as already noted, there also exist some patently incorrect approaches,

the use of which would necessarily degrade evaluation quality. There- fore, in addition to monitoring the ap- propriateness of the evaluation's de- sign and execution, managers need to be alert to the following kinds of general problems which can crop up during the design, conduct, or report- ing of an evaluation: Did staff gener- alize from a case study? Use inap- propriate statistical procedures? Fail to note the importance of a sizable number of nonrespondents to a questionnaire? Unintentionally dup- licate another study or miss an im- portant issue through lack of an ade- quate literature review? Attribute observed changes to a program with- out ruling out other possible causes for the changes? Make conclusions and recommendations not warranted by the power of the design or the work performed? Omit returning to modify the evaluation design (or if necessary, the evaluation question) when serious problems have arisen during the course of execution? Any of these problems—and there are many others—would sharply erode technical adequacy and influence evaluation quality.

Defining technical adequacy thus involves a third factor: *the absence of major conceptual errors, inappro- priate technical procedures, and im- proper conclusions or inferences.*

In summary, the three factors of technical adequacy given above as- sume that (1) if an evaluation fea- tures a design appropriate for an- swering the question posed within the time period and funding allo- cated, (2) if that design is executed rationally and defensibly, obtaining the evidence needed or expected, and (3) if no major errors are made in design, performance, or reporting, then it can reasonably be argued that the basic requirements of technical adequacy have been fulfilled.

Usefulness as a Component of Evaluation Quality

Usefulness is the second compo- nent of evaluation quality proposed in our definition. Once again, we are dealing with a relative concept, since usefulness can only exist with respect to a user and a use. Four fac- tors of usefulness to the congres-

sional customer have been dis- tinguished by the GAO.[1] These are *relevance, timeliness, presentation,* and *impact.* (While other aspects of usefulness certainly exist, some of these—such as lucky circumstances which unexpectedly may make a re- port timely—are not controllable by managers or staff and hence are out- side the scope of this discussion.)

The *relevance* of an evaluation's findings to an information need is a critical factor of usefulness. Find- ings that are used are generally those that address questions which policymakers themselves want an- swered for some specific purpose. Relevance, then, is defined here as the close logical relationship with, and importance to, a matter under consideration.

The *timeliness* of an evaluation's findings, with respect to a user's need and a projected use, is an equally critical factor of usefulness. A relevant report may not serve at all if it is delivered too late; results must be obtained and reported before, not after, the issue in question has to be decided. Timeliness is defined here as delivery of pertinent findings at an appropriate date: a date on which de- livery is most likely to be of help or service to the user.

The *presentation* of a report is as critical a factor of usefulness as are relevance and timeliness. Results must be communicated in a form that the user finds comprehensible and congenial, otherwise even rele- vant, timely reports may not find their audience. Presentation quality is defined here as that organization of a report—according to the con- ventions of logic, clarity, balance, and good writing—which is most ap- propriate to a user's needs.

These three factors of usefulness are controllable by staff but are assessable only by the user. There- fore, it is important for managers to assure that staff build in, during the negotiation phase of an evaluation, a clear agreement with the evalua- tion's sponsor not only about (1) the precise nature of the question posed and the level of confidence required

[1]See, for example, Elmer B Staats, *Remarks to the Evaluation Research Soci- ety's Annual Convention,* in Austin, Texas, Oct 3, 1981

in the answer, (2) the relevance of that question to the user's need, (3) the date on which the information must be available, and (4) the presentation aspects of the information delivery, but also (5) the manner in which the information is to be used. *Post hoc* tracking of actual use typically yields only limited information if expectations for use have not been discussed so that relevant measures can be planned and developed. This is especially true when the kind of use involved has been intangible (e.g., the sponsor's use of a report to develop a concept, to persuade others, or to negotiate a policy), that is, when the use is not clearly reflected in the end result.

As already noted, all three of these usefulness factors are relative concepts, defined by their appropriateness to the user need. All three enhance the likelihood that an evaluation's findings will be used. Therefore, the manager needs to ensure, at the design stage, that all three are built into the evaluation's performance, and, at the end of the execution stage, that the user has reviewed and assessed the evaluation's usefulness in terms of timeliness, relevance, and presentation.

The *impact* of a report is the fourth factor of usefulness (and the seventh of evaluation quality) to be examined here. Impact is complementary to the other three factors in that it refers to actual, validated use, as opposed to usefulness. At GAO, impact is defined in terms of accomplishments: the demonstrable use (or influence) of a report's findings and recommendations in (or on) legislation, agency decisionmaking, administration, or management (for example, savings achieved as a result of the report). Impact, then, is evidence of actual use. It strengthens the definition of the usefulness component in that it provides at least one indicator, independent of the user's opinion, that an evaluation's findings have in fact been used.

The third factor of the technical adequacy definition discussed earlier in this section—that is, "the absence of major conceptual errors, inappropriate technical procedures, and improper conclusions or inferences"—has the same function for that component of evaluation quality as does impact for usefulness: it

serves as a nonrelative indicator of technical adequacy. Such indicators are needed in our overall definition to ensure the discovery of the "smoking gun," that is, either the existence of a serious technical failure despite appropriate design and execution or the existence of nonuse despite glowing customer satisfaction.

Measuring Evaluation Quality

Evaluation quality has now been defined as composed of two components: technical adequacy and usefulness. Each of these components has been structured to include several defined factors, seven for the two components. We must now look for some possible ways by which managers can proceed to measure those factors. A first effort at measurement—still under development at IPE—is shown in table I.

Some of the measures for technical adequacy in the design phase (I,1) must, of necessity, be approximate, since they are planning estimates. For example, the cost of implementing an evaluation design can only be roughly projected; therefore, the measure invoked here is one of relative cost, as between one design and another (e.g., a short case study versus an outcome evaluation or a survey). Feasibility and time-to-completion, again, can usually be on-

ly crudely guessed at. However, th adequacy of the design for answ.. ing the question posed can typic: be ascertained, as can the agree ment on user needs.

With regard to the technical ade quacy of execution (I,2), the first mea sure—adequacy in terms of de sign—seeks to establish the degr.. of match between the front-end plan ning phase and conditions in the field. Managers and staff determine this by comparing what the desig. anticipated and what was, in fact achieved. The second measu.. speaks to the way in which any mismatch problems were resolved. Here, feedback from field staff to the evaluation manager is the information which needs to be obtained. Adequacy in terms of costs and milestones, the third measure, involves two comparisons: (a) final cost and time-to-completion versus projected cost and milestones; and (b) costs and time-to-completion versus those achieved in other evaluations using a similar design. This allows managers to pinpoint, for each evaluation, the reasons for delay, the locus (or loci) of delay, and the elements of unexpectedly increased cost. The great advantage here is that, once these problems have been precisely identified across a number of evaluations, progress in each of these areas can then be tracked over time. The fourth and fifth measures address goals of early warning. When

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Table I

Definition of Evaluation Quality: Seven Factors and Their Measurement

I. Technical Adequacy		II. Usefulness	
Factors	**Measures**	**Factors**	**Measures**
(1) Appropriateness of Design to Evaluation Question/Cost/Time	(1) (a) Adequacy of selected design for answering the question posed (b) Feasibility of implementing the design in required timeframe (c) Minimization of costs with respect to the question posed (d) Specification of agreement with user on what the question is, how the report will be used, when it is needed, and how use will be measured	(4) Relevance to user information need	(1) (a) Prior agreement of user with regard to question(s) report will address (b) Prior awareness by user of report limitations (conclusiveness, etc) (c) User satisfaction after report delivery
(2) Appropriateness of Execution to Question/Design/Cost/Time	(2) (a) Adequacy of execution in terms of the design requirements (b) Appropriateness of design revisions to conditions in the field (c) Adequacy of execution in terms of projected costs and milestones (d) Adequacy of monitoring and reporting on design/time/cost problems (e) Adequacy of tracking of customer satisfaction and impact	(5) Timeliness	(2) (a) Prior agreement with user (b) Information delivery by due date (c) User satisfaction after report delivery
		(6) Presentation	(3) (a) Adequacy of logic, organization, and writing (b) User satisfaction after report delivery
(3) Absence of Major Technical Errors in Design, Execution, and Reporting	(3) (a) Adequacy with respect to technical/methodological soundness (b) Adequacy with respect to the accuracy of what is reported	(7) Impact	(4) (a) Prior agreement with user on how the report will be measured (b) Evidence of policy use (c) Increased productivity (d) Improved management (e) Savings achieved

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problems arise, either with evaluation performance or with customer satisfaction, the sooner the problems are discovered, the more likely they are to be resolved. Thus, these measures compare the dates at which problems have appeared with the dates when they have been identified, either through performance monitoring or tracking of use.

Measures for the third factor of technical adequacy (I,3), such as specifying conceptual errors, inappropriate procedures, and improper conclusions or inferences, are not fleshed out here since knowledge in this area is widespread, nothing innovative is intended, and the list would be extremely long. For example, using correlational analysis to make conclusions about cause-and-effect relationships or overlooking the importance of a defined universe would reduce the technical credibility of any report. But, in addition, such errors should draw the attention of the evaluation managers to needed training for staff.

The measures of usefulness factors given in table I (II, 1, 2, 3, 4) all seek to reinforce the performance of specific upfront negotiations with the customer and the formal tracking of customer satisfaction and use. Here, feedback from the user to the evaluation manager is the critical information needing to be obtained.

Discussion

The above effort to define and measure evaluation quality is, of course, an initial attack on a difficult management problem. As they undergo testing and development in IPE, the various concepts will need to be amended, revised, refined, and improved. But the overall approach affords several advantages.

First, it moves managers out of the realm of static, *ad hoc* criteria, informally applied. The appraoch taken here instead is both formal and dynamic; it tries to ensure that all elements directly affecting the development and measurement of evaluation quality can be included, documented, and accounted for in terms of their relation to each other. Additional elements can, of course, be inserted in this framework, and the evaluation manager can accommodate his or her views of what is most

important by differential weighting of the elements or components to be reviewed.

Second, this approach allows the manager to find multiple measures of progress in evaluation quality over time. This is done with regard to technical adequacy by incorporating into the assessment not only the soundness of the design from a strictly methodological viewpoint, but also the consideration of the question posed, that of design feasibility, and of the time and funds available. With regard to usefulness, this is done by incorporating into the assessment the consideration of the use itself, of the user need, and of user satisfaction.

Third, this approach can help to achieve needed control of resources and improvements in productivity by showing the need for technical design review by managers early enough in the job to ensure the effectiveness of the design strategies adopted with regard both to cost and to the likely timeframe required for performance. Evaluation quality can never, under any definition, be equated with length of time and high costs. Rather, quality is achieved when a design is the best possible one, given the time and funding available. This, of course, is a matter of common sense: it is no more true, for example, that high costs and length of time necessarily generate high quality than it is true that low-cost, rapid efforts must necessarily result in poor quality. Thus, the approach promotes attention to resource expenditures by making them a function of evaluation quality.

Finally, by separating technical adequacy from usefulness, the approach avoids confounding the two, and this is important because confusing them can impede the effort to improve either one. The reason for this is that technical adequacy alone does not ensure usefulness: many excellent studies have gathered dust on policymakers' shelves. In the same way, usefulness cannot speak to the question of technical adequacy: many well-used evaluations have been technically mediocre. Said another way, this means that customer satisfaction is an excellent way of measuring usefulness but not technical adequacy, and methodological review is an excellent way of

measuring technical adequacy but not usefulness. Therefore, care was taken in developing this approach to (1) assure a measure of separation between technical adequacy and usefulness so that each can be individually assessed, (2) link the two components, nonetheless, since both are essential in determining evaluation quality, and (3) lay the foundation for developing a better understanding of the critical relationships between the two components (by including, for example, the specification of measures of use in the managerial review of technical adequacy—see table I, I, 1, d).

In brief, the above discussion of evaluation quality argues that (1) it is reasonable to define evaluation quality as composed of two components, technical adequacy and usefulness; (2) that there are three factors which figure critically in the managerial review of technical adequacy: (a) the appropriateness of the evaluation *design* as a function of the question to be answered, the time required, and the costs allocated for answering it, (b) the appropriateness of the evaluation's *execution* with respect to the design selected and the costs and time required, and (c) *the absence of conceptual errors,* inappropriate technical procedures and improper conclusions or inferences in the design, execution, and reporting of the evaluation; (3) there are four factors which figure critically in the managerial review of usefulness: (a) relevance, (b) timeliness, and (c) presentation (all three with respect to user need), and (d) impact, or evidence of actual use; and (4) progress in improving evaluation quality can be monitored by using this definition, these factors, and the measures which flow from them in the management of evaluations.

This definition considers design not only as a dominant factor in improving evaluation quality, but also as a similarly dominant factor in controlling costs, in minimizing the time required for performance, and in tracking the use made of reports. Such use of design could naturally be expected to expand the repertoire of methodologies typically employed for answering the evaluative questions posed. In the same way, the manner in which the component of usefulness considers relevance,

timeliness, and presentation could lead to major changes over time in the way findings are organized or presented, for example.

Improving Evaluation Quality Over Time

Evaluation staff need to know whether efforts they have made to improve their performance have resulted in something measurably better than before. Evaluation managers must also be able to track results to account for the productive use of evaluation resources. Therefore, one major purpose for laying out the definitions and measures discussed above is to enable evaluators and managers to look back, some years hence, and trace the progress they have made. At the Institute for Program Evaluation, our development of such a system uses indicators derived from the definition, factors, and measures given here.

Some of the indicators for tracking change are, by now, obvious. Review measures for individual evaluations have been presented above. With regard to measuring collective changes across a set of evaluations, there are many ways in which we expect to measure improvement. Five of these are illustrated here, using the example of a hypothetical 10-year comparison period in most cases:

1. Changes in the diversity of product types and methodologies (comparison 1975-1985).

2. Changes in the average costs and time periods for performing jobs (1975-1985).

3. Changes in efficiency as measured by product rejections (1983-1985).

4. Changes in response capacity as measured by the diversity of reporting formats and improvements in timeliness (1975-1985).

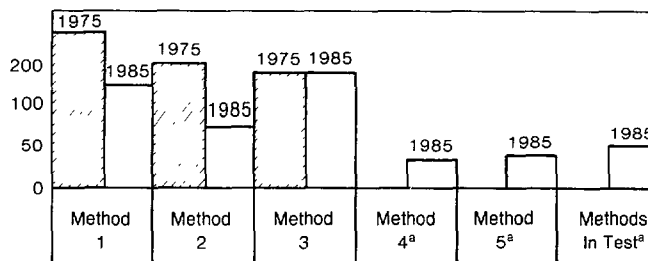5. Changes in the impact of products as measured by support to primary users (1975-1985).

The expectation of improvement in evaluation quality is, of course, the basis for the positive changes de-

Illustration 1

Diversity of Product Types
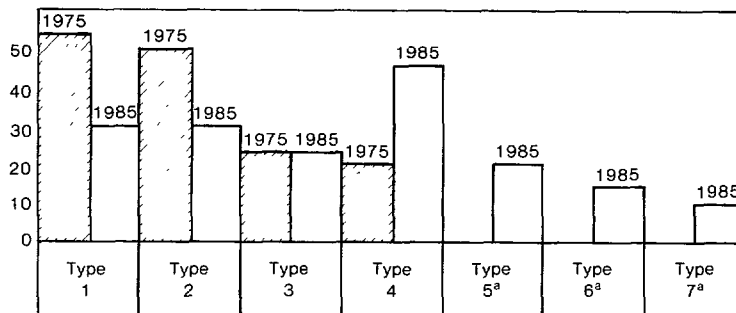
[a]New product types developed and implemented in the 1980's

Diversity of Methodologies Employed

[a]Methods developed and implemented in the 1980's

scribed in these charts. With regard to illustration 1, product diversity, it would be logical for a new emphasis on design appropriateness (relative to the question posed and to time and cost constraints) to result in an increase in product types and methods. In the evaluation area, jobs could be expected to make use of perhaps six methodologies where only one or two were used in the 1970's.

Illustration 2 shows increased effectiveness in terms of time and cost; this is reasonable to expect because cost and time reductions should accompany a diversified array of methods. In many past evaluations, a long, slow, and very costly approach has often dominated. Increased diversity is likely to pick up quicker, less labor-intensive methods. Any increase in design efficiency, should, on the average, reduce costs.

Illustration 3's assumption of decreased product rejection derives from the belief that new product types, methods, and greater relevance to user needs would generate more customer satisfaction and hence result in fewer product re-
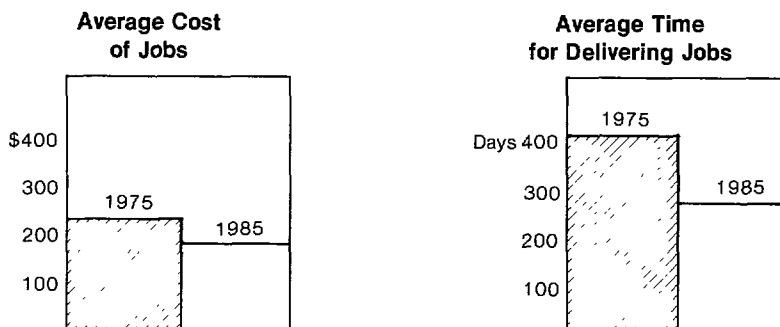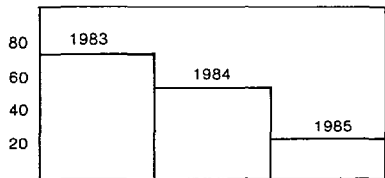
Illustration 2

Average Cost of Jobs

Average Time for Delivering Jobs

Illustration 3

**Improvements in Efficiency as Measured
by Product Rejections**

jections.

With respect to illustration 4, the expectation is that increased sensitivity to presentation possibilities and to timeliness would again increase user satisfaction.

Finally, illustration 5 supposes that attention to all of these factors should result both in greater credibility and greater impact.

Illustration 5

**Impact of Evaluation Products as
Measured by Support to Primary Users**
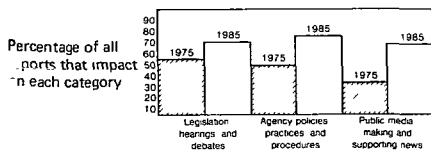
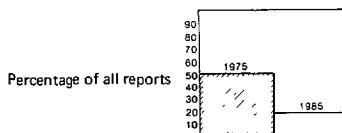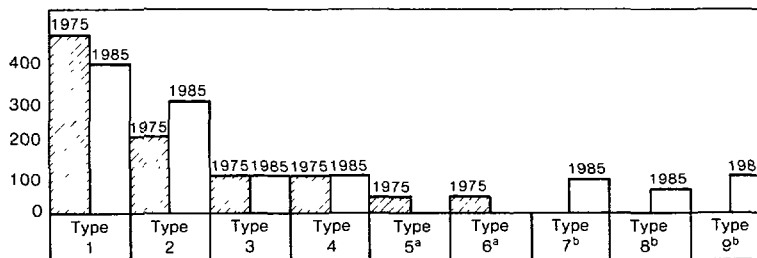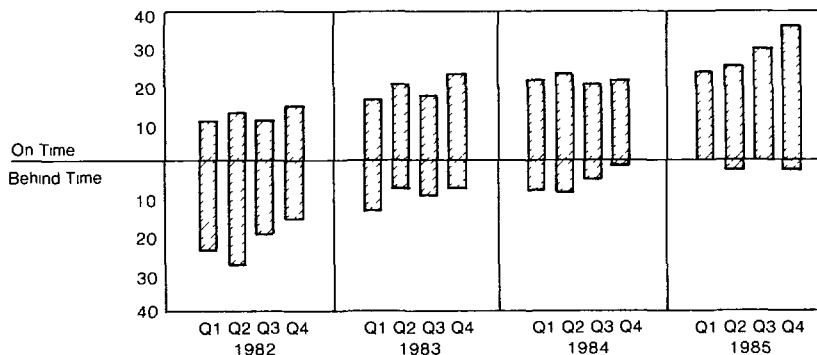**Reports Failing to Impact
on Measured Areas**

Illustration 4

**Response Capacity as Measured by Different Types
of Reporting Formats**

ªDiscontinued formats
ᵇFormats developed and implemented in 1980

**Timeliness as Measured by the Frequency
of On-Time/Behind-Time Deliveries**

Summary

This article has developed a definition of evaluation quality involving 2 components, 7 factors, 24 measures, and various tracking indicators to help evaluation managers account for their performance. The definition incorporates methodological soundness and attention to time lags, costs, use, and user needs. The measures assume a managerial review process at the design phase and at the end of a job focusing on methodological soundness, cost, and time; feedback from field staff with respect to design implementation; review of customer satisfaction *vis-a-vis* report relevance, timeliness, and

presentation; and documentation and review of the use(s) made of the evaluation.

Hypothetical tracking indicators were elaborated based on the formal inclusion of such elements as

• information need (i.e., the question),
• design,
• time to completion,
• cost,
• feasibility,
• absence of major errors,
• relevance,
• date needed (timeliness),
• presentation, and

• impact.

The presumption is that careful managerial attention over time to these elements should result in better evaluation quality, lower costs, greater timeliness, increased diversity of methods, more customer satisfaction, and wider impact.

IPE will begin testing such a system in fiscal year 1983. We expect that it will allow us both to track the soundness, efficiency, and usefulness of the evaluations we perform and to measure changes in our effectiveness over time.

GAO's Executive Candidate Development Program Is 1 Year Old

Linda Weeks

Ms Weeks joined the Training Branch in GAO's Office of Organization and Human Development in 1981 She has worked with both the technical and managerial training programs Before joining GAO, Ms Weeks taught in Frederick County (MD) public schools and was a social services caseworker in the District of Columbia She received her B A from the University of Maryland and is completing an M P A program at George Mason University

Fall 1982 marks the first anniversary of GAO's Executive Candidate Development Program (ECDP). Mr. Socolar, the Acting Comptroller General at that time, selected the first class of six candidates on September 10, 1981. A second group of seven candidates was selected by Comptroller General Bowsher in April 1982. During the past several months, the candidates, guided and directed by the Executive Resources Board (ERB), have participated in various courses, seminars, workshops, and developmental assignments.

An Overview of the Program

The Executive Candidate Development Program is part of GAO's management development approach. Encompassing training and developmental activities for supervisors, managers, and executives, this approach arises from a commitment to meet both organizational and personal needs. The ECDP focuses on developing a group of highly qualified professionals to meet GAO's present and future needs for executive-level managers. Figure 1 is a schematic of the ECDP's major phases and processes.

Applicants for the ECDP, managers from the GS-15 level, must pass a rigorous screening and reviewing process to become candidates. Division directors and members of the Qualifications and Performance Review Board evaluate and rank these applications. The board then sends the names of the top 50 percent to the ERB for consideration. After study, the ERB makes an initial cut, interviews the remaining applicants, selects the finalists, and sends their names to the Comptroller General for approval.

Preliminary Activities

Upon entering the program, candidates plunge into activities that will help them develop strategies to address the competencies which are the core of the ECDP. The nine competency areas—leadership, conceptualization, decisionmaking, interpersonal skills, oral communication, written communication, organization and planning, adaptability, and decisiveness—help define how well an executive performs. One of their first

FIGURE 1
SES CANDIDATE SYSTEM
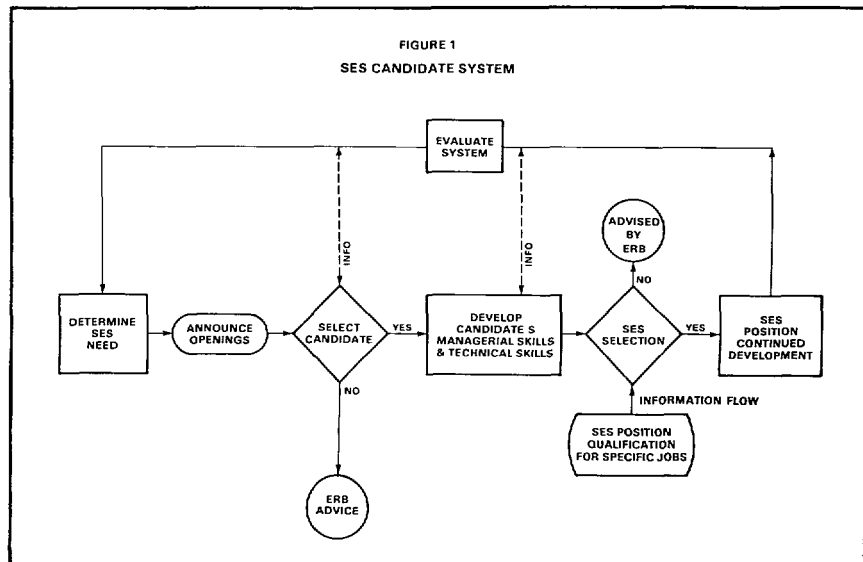
activities involves the Developmental Diagnostic Center (DDC), which rates their performance in each of these nine competencies. After the DDC, candidates receive counseling and a written evaluation report which aid their design of Individual Development Plans (IDPs).

Within 3 weeks of entering the program, they also choose a Senior Executive Service (SES) staff member to serve as their mentor. The ERB reviews and approves these choices. Candidates should select mentors with extensive GAO experience who will help them focus career goals in the context of organizational needs. The senior adviser counsels the candidate in designing the IDP and assists in locating and arranging appropriate developmental assignments. The mentor also monitors the candidate's performance in the program, provides feedback, and attends the quarterly ERB review sessions with the candidate.

As the framework for the candidate's experiences in the ECDP, the IDP clarifies and provides a context for the individual's goals and objectives. To develop an IDP, the candidate and mentor consider the candidate's experience and career objectives as well as information about strengths and weaknesses obtained from past supervisors and the DDC profile. Once the ERB approves their IDPs, candidates begin training and developmental assignments.

The candidates participate in various internal and external activities, choosing rotational assignments to complement previous experiences. Most of the developmental assignments last from 1 to 6 months and have specific objectives. Another type of developmental assignment involves accompanying an SES staff member through routine job activities. These assignments may last from 1 week to several months. Candidates may also be scheduled to attend appropriate external training courses in the public or private sectors or at a university. Attendance varies from a 1-week seminar to an extended period.

Besides these activities based on the IDP, each candidate also participates in required program components. Upon selection, candidates attend seminars given by the Office of Organization and Human Develop-

ment (OOHD) on mentoring and developing an IDP. SES mentors attend a similar seminar on roles and responsibilities. Candidates attend workshops on current operations issues and seminars designed to improve their performance in the nine competency areas. When appropriate, candidates are also invited to attend lectures, seminars, or workshops planned for the SES staff members.

During their 18 months in the ECDP, candidates are administratively assigned to OOHD. Those activities identified in their IDPs eventually become the candidates' full-time "jobs." Although ECDP candidates may apply for SES positions, they must still complete the program.

A Look at the Candidates

The 13 candidates selected during fiscal year 1982 come from diverse backgrounds and bring a wealth of experiences into the program. There were two announcements for applicants released in 1982. Although the announcement for the first class was issued Government-wide, all those selected have been GAO employees. Some have extensive field experience, several have had assignments in staff as well as line units, a few have had overseas experiences or Capitol Hill assignments, and two have had extensive experience outside GAO.

John Adair was named as a candidate in the first group selected in September 1981. He was then the deputy associate director in the Accounting and Financial Management Division's Governmental Internal Audit/Fraud Prevention Group. William Anderson, director of the General Government Division (GGD), became his mentor. Since John was already in the 10-month program at the Industrial College of the Armed Forces (ICAF), his initial involvement in the ECDP was limited to the required seminars and workshops. Since his completion of the ICAF program, he has worked with the Reports Task Force. Future assignments will take him to both civil and defense divisions.

Johnny Finch and Dan White were the first two candidates in the ECDP program selected to fill SES vacancies. Johnny remained with GGD and became associate director of the Internal Revenue Operations Group. Dan, then with the Community and Economic Development Division (CEDD), became the associate director for the Energy and Minerals Division's (EMD's) Nuclear Energy, Electric Power, and the Department of Energy's Management Administration Group at the Germantown site. Given their current responsibilities, the ERB extended the time period allotted for them to complete their IDP activities. J. Dexter Peach, director of EMD, and Ralph Carlone, Philadelphia regional manager, have been working as mentors with Johnny and

Milton Socolar (standing) was the Acting Comptroller General when the first group of ECDP participants was nominated. Left to right: Johnny Finch, Daniel White, John Adair, Larry Peters, Paul Math, and Joan McCabe.

Dan, respectively, to help locate activities to fulfill the needs identified in their IDPs. Johnny attended Dartmouth's Executive Institute this past summer. Dan will work with the Philadelphia regional office and the Office of Policy (OP).

Paul Math, entering the ECDP as the senior group director of a Procurement, Logistics and Readiness Division (PLRD) subdivision, has had an unusual rotational assignment. For 6 months he worked directly for the Comptroller General. In targeting this assignment, Paul and his mentor, Dick Fogel, director of the Office of Program Planning (OPP), had thought of finding a senior-level staff position, possibly under one of the Assistant Comptrollers General. Instead, Paul was invited to work directly with Mr. Bowsher. For 6 months, Paul combined a silent observer role as Mr. Bowsher met with GAO staff, testified before the Congress, and spoke with people from public and private organizations with various administrative duties. Paul is also working in the Philadelphia regional office, will work in a headquarters division, and will then attend a 7-week FEI program.

Two assistant regional managers (ARMs)—Joan McCabe and Larry Peters—were in the first class. Joan, one of Boston's ARMs, has had field experience with the New York regional office and the International Division's (ID's) European Branch. Larry had been on the staff in both the Seattle and Denver regional of-

fices before his job in San Francisco. Both have worked in the Office of Program Planning. With her mentor, PLRD director Donald Horan, Joan arranged a wide variety of assignments. She had a long-term assignment working with Ron Lauve in GGD's Law Enforcement and Justice Group. For a shorter time, she shadowed Mr. Horan, and for approximately 4 weeks she concentrated on the Office of Congressional Relations. She joined Paul Math in helping OOHD's training staff design two courses for senior GAO staff. Through the ECDP, Joan is now a full-time graduate student in Harvard's Mid-Career Masters of Public Administration Program. On the west coast, Larry and his mentor, Tim McCormick, San Francisco regional manager, have arranged internal and external developmental assignments. In February 1982, Larry enrolled in the Program for Senior Executives at the John F. Kennedy School of Government at Harvard. In May he began working in Sacramento with Larry Margolis, Executive Secretary for the California Debt Advisory Commission.

The Second Group

The second class of candidates had selected their mentors, participated in one operations workshop, and submitted their IDPs by late May. Their IDPs have been reviewed by the ERB, and they are now beginning their assignments. A re-

view of the IDPs reveals the variety of education and developmental assignments being requested. Some seek to broaden their understanding of regional operations by joining Field Operations Division (FOD) projects, while others hope to expand their perspectives by working in other Federal agencies, local government, or one of the "big eight" firms.

Dave Baine, the Human Resources Division's deputy associate director for the Social Services and Health Research, Resources, and Services Group, had already been accepted into Harvard University's Program for Senior Executive Fellows and is presently fulfilling this assignment after completing an FOD project.

Steve Virbick joined Dave Baine on the FOD project in June 1982 and is presently working on an assignment with the International Division. Steve had been a group director with GGD's Financial Institution Regulatory Group.

PLRD's Marty Ferber, like John Adair, was already enrolled in ICAF when he was chosen. After completing his studies, he was assigned as an assistant in the Comptroller General's office.

Mike Gryszkowiec, who has worked in CEDD, GGD, EMD, and OPP, was a member of the Personnel Systems Development Project task force before his acceptance. Mike expects to work with FOD and OP and is arranging an assignment with the Office of Management and Budget.

The second group of candidates posed with Messrs. Bowsher and Socolar. Left to right: John Vialet, Rich Davis, Martin F: '- Michael Gryszkowiec, John Luke, Steven Virbick, and David Baine.

Rich Davis, assistant to the direc-
.or of OPP, had previously attended
the National Defense University and
the Harvard Program for Senior Exec-
"tive Fellows. Among his IDP activ-
ities, Rich is arranging an assign-
ment at a State or county govern-
ment and an executive agency. Addi-
tionally, he will attend the Office of
Personnel Management's LEGIS Fel-
lows Program.

John Luke, from the Program
Analysis Division, and CEDD's John
Vialet bring to the candidate pro-
gram expertise as GAO evaluators as
well as consulting experience. John
Vialet has served on the Reports
Task Force and is arranging other as-
signments with line and FOD units.
John Luke is completing an assign-
ment in FOD and plans additional
jobs in headquarters divisions and
offices as well as in regional offices.
Additionally, he will be seeking ex-
perience outside GAO—perhaps with
a White House task force or an ex-
ecutive agency inspector general
group.

Highlights from the First Year

Most candidates praise the ECDP
for being a full-time program which
lets them participate in a broad
range of activities. According to
Johnny Finch, most developmental
assignments become so task ori-
ented that their developmental pur-
pose is obscured. In contrast, the
ECDP allows participants to pursue
product-centered assignments while
meeting their developmental needs.
One new candidate, Mike Gryszko-
wiec, expects the ECDP will help par-
ticipants break with past roles and
give them the experiences necessary
to develop a broader agency per-
spective. In completing his IDP, Paul
Math observed that the ECDP pro-
vided opportunities to work in areas
or on assignments previously un-
available because of ongoing job re-
sponsibilities.

The candidates also agree that the
mentor/candidate relationship was
important to their first-year ex-
periences. Mentors helped them as-
sess the gaps in their experiences.
Through contacts within and outside
GAO, mentors could identify assign-
ments to round out the candidates'

Dr. Harry Levinson was the instructor for two ECDP workshops. He is the President of the Levinson Institute and a professor at Harvard University.

development. Candidates generally
believed that the mentors were cru-
cial in helping them focus assign-
ments into activities which bene-
fitted both the individual and GAO.

For many candidates, the high
point of the required workshops were
the presentations by and discus-
sions with Dr. Harry Levinson. This
noted author, Harvard lecturer, and
President of the Levinson Institute
met with the candidates at two work-
shops. The first workshop, designed
to examine human resource manage-
ment within GAO, analyzed the roles
and responsibilities of managers and
executives in human resource man-
agement. In the second workshop,
Dr. Levinson considered the psy-
chological impact of organizational
change upon individuals. He then ex-
plored what managers and exec-
utives can do to prevent or relieve

some of its side effects.

The Executive Candidate Develop-
ment Program requires a serious in-
vestment of time and energy by par-
ticipants. They must be committed to
developing their professional and
personal skills to the fullest. The
ECDP also requires cooperation and
support from senior managers
throughout the agency. First-year
participants have enjoyed a variety
of training and developmental ex-
periences provided by divisions, re-
gions, and offices. They have met
regularly with the Executive Re-
sources Board to ensure that their
development plans are on target. At
the end of its first year, the ECDP is
running smoothly and moving steadi-
ly toward its goal of providing a sys-
tem that satisfies the needs of both
organization and staff.

Bookmark
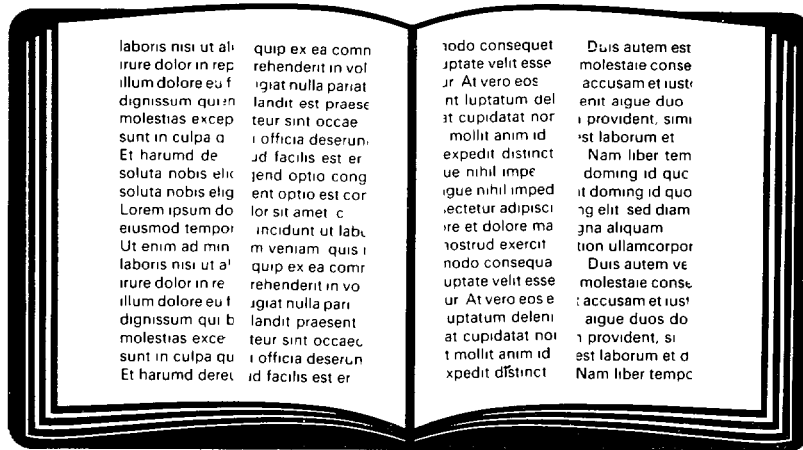
Understanding Intergovernmental Relations

By Deil S. Wright, second edition, Brooks/Cole Publishing Co., Monterey, California, 1982. 532 pp.

Trying to explain intergovernmental relations and how it works is much like the proverbial description of an elephant by a group of blind men. Too often, observers of intergovernmental relations (IGR) describe only the viewpoint of one blind man without explaining that other perceptions exist. As a result, anyone trying to understand IGR quickly becomes confused after reading several disparate descriptions.

IGR is inherently a sprawling and unsystematic topic, and for many, inpenetrable. This confusion occurs because IGR cuts across such disciplines as law, economics, political science, and public administration, and few authors provide a balanced view of these divergent approaches. Professor Wright understands this Rubik's Cube and has all colors facing the right direction in his second edition of Understanding Intergovernmental Relations.

Dr. Wright gives IGR a broader scope than the concept of federalism. Federalism, he says, historically emphasizes national-State relationships, implying a hierarchy of power relationships. IGR, however, contains no hierarchical distinctions and is based on a wide range of informal actions and perceptions by officials at all levels. From this premise, he develops several theoretical models of how IGR might be perceived by intergovernmental participants and illustrates these models with clear examples. In illustrating his overlapping authority model, he quotes a mayor who observed, in dealing with Federal agencies, "I feel like I'm the United Fund chairman calling on potential givers." Such observations readily define relationships better than any academic prose.

This spectrum of definitions of IGR, supported by real-life examples, helps the reader understand that different people mean different things when talking about the same subject. No single perspective is necessarily the "correct" answer since each has some validity.

After briefly reviewing both IGR's historical evolution and trends in State and local finances, the book then describes IGR's practical operation. Most of the book untangles the informal bargaining processes of IGR between national, State, and local actors. By synthesizing hundreds of examples and dozens of recent studies, Dr. Wright masterfully portrays the constraints and capacities of various intergovernmental actors from several viewpoints without passing judgment. For instance, in discussing congressional actors, he comments on GAO's capacities. Based on other recent analyses, he concludes, "The GAO tends to support greater national and congressional control when it specifically addresses IGR issues." He does not, however, imply whether this is good or bad.

The strength of this book rests in its being descriptive, not prescriptive. The book describes the dynamics of what motivates policy actions, not the administrative process (which continually changes). Synthesizing major research studies by various government and public interest organizations, he offers potential options but does not predict IGR's future.

Its weakness lies in its inability to keep up with this rapidly changing field. The book's detailed elaborations of Federal policies, such as the general revenue sharing program, were instantly eclipsed in importance by President Ronald Reagan's New Federalism proposals announced in January 1982. These proposals were of such importance that even if none are acted upon, IGR's political framework has altered significantly. And one cannot fully understand IGR without analyzing them. Given that caveat, the second edition of Understanding Intergovernmental Relations remains relevant because it centers on the constant bargaining process of officials at all levels of government. And that process, according to Dr. Wright, is the heart of intergovernmental relations.

Readers of the first edition (published in 1978) will note substantial changes. The role of national actors is greatly expanded. There is less emphasis on finances, and three new chapters have been included. One is on political parties, interest groups,

Legislative
Developments

O25050

Judith Hatter

Federal Courts Improvement Act of 1982

The Federal Courts Improvement Act of 1982 (Public Law 97-164, April 2, 1982, 96 Stat. 25) amends two sections of title 28 of the United States Code pertaining to GAO.

The language of 28 U.S.C. 2510 is revised with respect to Comptroller General referral to the United States Claims Court for trial and adjudication of any claim or matter on which the Claims Court might take jurisdiction on the voluntary action of the claimant.

The law also amends 28 U.S.C. 2516(b), pertaining to interest on claims and judgments. Interest on judgments against the United States affirmed by the Supreme Court, after review on petition of the United States, is to be paid from the date of filing the judgment transcript in the General Accounting Office to the date of the mandate of the affirmance, at a rate of interest equal to the coupon issue yield equivalent to the average accepted auction price for the last auction of 52-week U.S. Treasury bills settled immediately prior to the date of judgment.

Olympic Coins

Controversy arose in this session of Congress over coins to commemorate the 1984 Olympic Games in Los Angeles.

On April 27, congressman Frank Annunzio of Illinois discussed the situation while describing the provisions of H.R. 6158, which he had introduced the previous day:

***The Olympic Commemorative Coin Act goes to great lengths to protect the taxpayer from any costs in this program. My bill is the only bill that meets the General Accounting

/20969

Office criteria for sales of these coins. The Senate Olympic coin bill (S. 1230) would cost the taxpayer up to $360 million in indirect Federal financing. Mr. St. Germain's bill (H.R. 6058), according to the General Accounting Office, would cost the Government up to $210 million in foregone revenues. The supporters of these other proposals can call these numbers what they will, but they cannot change the fact that under those bills the taxpayer is indirectly financing the Olympics.

Not only does my bill meet the General Accounting Office objections, but my bill specifically directs the Secretary of the Treasury to take all actions necessary to assure that the coin program will not cost the taxpayer one penny.* * *[1]

On May 20, the House passed a modified Annunzio substitute for S. 1230 which includes a provision for GAO audit of records of the U.S. Olympic Committee and the Los Angeles Olympic Organizing Committee relating to expenditures of amounts paid from proceeds of the sale of the coins. Earlier, on December 9, 1981, the Senate passed a different version of S.1230.

DOD Authorization for Fiscal Year 1983

On May 13, the Senate passed S. 2248, the Department of Defense Authorization Act, 1983. The bill was amended to provide for the establishment of an Office of Inspector General for the Department of Defense. Among other duties, the Inspector General is to develop policy, evaluate program performance, and monitor actions taken by all components of the Department in response to contract audits, internal audits, internal review reports, and audits conducted by the Comptroller General.

The measure requires the Comptroller General to review and analyze reports or certifications on unit costs of major defense systems by the Secretary concerned and report to the Committees on Armed Services of the Senate and House of Representatives. The act delineates the contents of the analysis to be made.

Waste and Abuse Information Collection Act

H.R. 6266, Waste and Abuse Information Collection Act, introduced by Congressman Thomas E. Petri of Wisconsin, provides for the operation of facilities for the collection of information concerning fraud, waste, or abuse in the expenditure of Federal funds.

The bill provides that the head of a Federal agency may pay a cash award to any individual whose disclosure of fraud, waste, or abuse to the agency has resulted in cost savings.

Documentation substantiating any award is to be submitted to the Comptroller General. From time to time, the Comptroller General is to review awards made and procedures used to verify the cost savings.

Competition in Contracting Act

On May 4, in a discussion of S. 2127, Competition in Contracting Act, Senator William S. Cohen of Maine referred to the GAO report, "Less Sole-Source, More Competition Needed on Federal Civil Agencies' Contracting" (PLRD-82-40, Apr. 7, 1982), summarized its recommendations for improving competition in Government contracting, and pointed out that these recommendations are included in the provisions of the bill.

Food Stamp Act Amendments of 1982

On April 1, the Food Stamp Amendments of 1982, S. 2352, was introduced by Senator Jesse Helms of North Carolina. Title XIII—State Block Grant Option—provides for certain design flexibility with respect to the operation of a low-income nutritional assistance block grant program to finance expenditures for food assistance for needy persons within the State.

The Comptroller General is to evaluate expenditures by block grant States to assure that expenditures are consistent with the law and to determine the effectiveness of the

block grant State in accomplishing the purpose of the law.

The Comptroller General may also conduct investigations of the use of the funds.

The Secretary of Health and Human Services, in consultation with the Comptroller General, is to evaluate possible formulas for allotment of funds which could be used as alternates to those described.

Civil Process Fees

On May 27, Senator Max Baucus of Montana introduced S. 2588, to provide for the setting of fees in the service of civil process.

While introducing the measure, Senator Baucus referred to a recent GAO report entitled, "U.S. Marshals Can Serve Civil Process and Transport Prisoners More Efficiently" (GGD-82-8, Apr. 22, 1982), which recommended the legislation.

Senator Baucus noted:

***GAO found that the fees charged by the U.S. marshals for serving civil process for private litigants have not changed significantly in over 180 years.* * *[2]

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[1]*Cong Rec,* Vol 128 (April 27, 1982), p. H1622-23
[2]*Cong. Rec.,* Vol 128 (May 27, 1982), p S6375.

Diane E. Grant

Reflections _____

Ten years ago, in the Fall 1972 is-
sue of the *GAO Review* and fall edi-
tions of the *Watchdog,* you will find
that

• The first edition of the "Stan-
dards for the Audit of Governmental
Organizations, Programs, Activities,
and Functions" was formally issued
by Comptroller General Elmer B.
Staats on August 1, 1972. The Gen-
eral Accounting Office completed
the project with the assistance of
representatives of Federal agencies,
State and local governments, leading
professional organizations, public in-
terest groups, and the academic
community. On August 1, 1972, a
public briefing on the new standards
was conducted in the GAO Building
by the Comptroller General and Don-
ald L. Scantlebury, director, Fi-
nancial and General Management
Studies Division. The briefing was at-
tended by about 100 representatives
of Federal agencies, professional as-
sociations, State and local govern-
mental organizations, and the press.
(NOTE: During the late spring of
1981, GAO released a second revi-
sion of the original audit standards

issued in 1972. The standards have
since been translated into Spanish,
and France is currently finalizing a
French version.)
• The Manila office of the Far
East Branch, International Division,
closed June 30, 1972, and the func-
tions, duties, and several staff mem-
bers were transferred to Bangkok,
Thailand, effective July 1. Fred E.
Lyons was designated manager.
• Martin J. Fitzgerald, director, Of-
fice of Congressional Relations, was
designated attorney-adviser for leg-
islation in the Office of Legislative
Liaison, Office of the Comptroller
General, effective July 9, 1972.
• Robert M. Gilroy, senior asso-
ciate director, Procurement, Log-
istics and Readiness Division, was
designated assistant director in the
Office of Internal Review, effective
July 9, 1972.
• Daniel P. Leary, director, Office
of Internal Review, was designated
assistant manager in the Washing-
ton regional office, effective July 10,
1972.
• Alexander A. Silva, director,
Civil Rights Office, was appointed
deputy director for Equal Employ-

ment Opportunity of the General Accounting Office. This newly estab lished full-time position was an nounced by Comptroller General Elmer B. Staats in October 1972.

• Marvin Colbs was appointed manager of the Atlanta regional office, effective August 28, 1972.

• Clifford I. Gould, director, Federal Personnel and Compensation Division, was designated an associate

director in that division with responsibility for Government-wide reviews of Federal compensation and the acquisition, utilization, and retention of Federal personnel, effective July 23, 1972.

• Frank Borkovic, assistant manager, Dallas, was designated manager of the International Division's Saigon office, Far East Branch, effective August 20, 1972.

• Donald E. Day, senior associate director, Mission Analysis and Systems Acquisition Division, was designated assistant director in the Procurement and Systems Acquisition Division, effective July 9, 1972.

Twenty years ago, in a fall issue of the *Watchdog,* the following picture was published of the Second GS-7 Training Program for 1962.
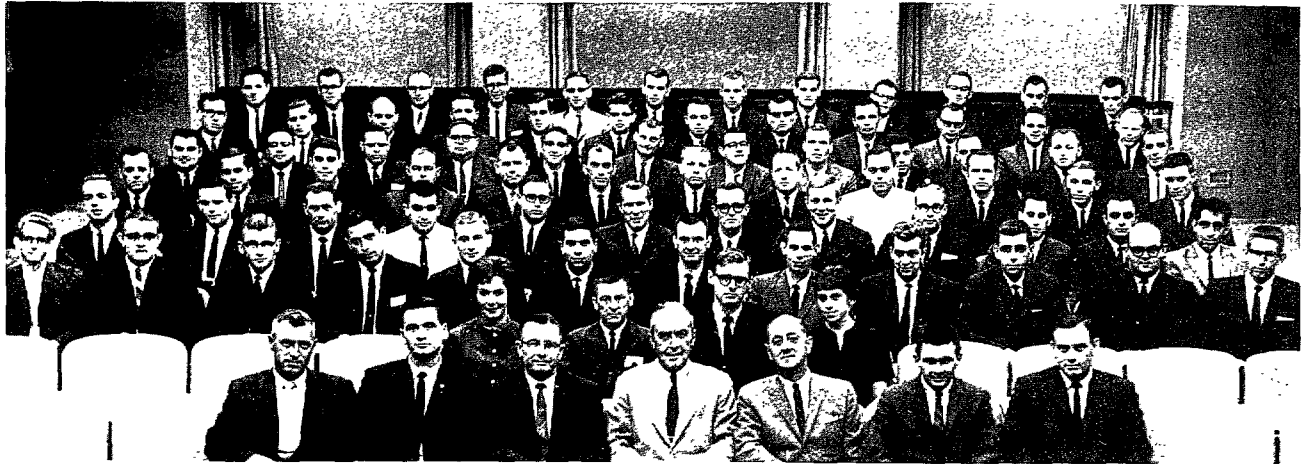
THE SECOND GS-7 TRAINING PROGRAM FOR THE YEAR 1962 GIVEN BY THE OFFICE OF STAFF MANAGEMENT was conducted in Washington, D C , July 9 through 20 Reading from left, ROW 1 John F. Elliott, Philadelphia Regional Office, Counselor, David Rettiger, Kansas City Regional Office, Counselor, Leo Herbert, Director, Office of Staff Management, Joseph Campbell, Comptroller General of the United States, Edward Breen, Assistant Director, Office of Staff Management, Cornelius Tierney, Boston Regional Office, Counselor, James Kelly, Civil Accounting and Auditing Division, Counselor ROW 2 Joann H Olson, Speight W Burrus, Jack H Vital, Judith A Howe ROW 3: Davis S Shupe, L Thomas Snyder, Richard L Maynard, Archie Granda, William Hill, Robert Procaccini, Robert W Jones, James S Whitt, Jr , Joseph T Valonis, Fred C Conant, Robert R Lindemuth, Charles H Wehring ROW 4: Ken Earnest, Jerry Lininger, John Navarre, Jerry Brenner, Larry Kortick, William C Lynch, Charles V Carroll,

William B Diepenbrock, Donald C Hahn, Joel R Berman, Robert E Pavlik, Robert A Indresano ROW 5 James M Mathews, Francis K Boland, Larry J Simon, Victor L Wells, Jr , Arthur L Hale, Ramon A Looney, John A Remke, Ben F Gardner, Robert Clark, Vern F Amick, Matthew R Solomon, Joe E Totten ROW 6· J F Sparks, J L Magnes, L R Drewett, F E Harzer, J K Seidlinger, R D. Robertson, S Krywucki, J P Kelly, S Correira, Jr , G R Demers, R D Gerring, J R Tipton ROW 7. Robert Farabaugh, Leonard Burns, Earl Ellison, Brian Crowley, Orian A Archambault, Donald H Leppla, Larry C Hanna, Gene W Mindling, A Herman Meyer, Jr , Billy R Gilliland, Joseph S Azzarano, Walter Smith ROW 8 Ralph E Anderson, James B Perkins. Michael D Pecovish, Harold D Edwards, Kermit S Mohn. Leo Ganster, Thomas J Kingfield, David E Overman, Jr , Donald E Whitteaker, Gerald H Springborn. Emil C Cracker, Cecil B Carter

tute. President Reagan dropped the U.S. Circuit Judge Nominating Commission and the Statistical Policy Coordination Committee but created the Cabinet Council on Human Resources, the Task Force on Legal Equality on Women, and the National Commission on Social Security Reform. The full list contains over 50 groups; auditors may find some useful information sources therein. For a complete listing of both the created and abolished offices, call the *Federal Register* on (202) 523-5240.

"Auditing by Mail" Gets Good Response

Editor's Note The *Review* article, "Auditing by Wire: Shocking Results" (Winter 1982), aroused the interest of two GAO evaluators in the Kansas City regional office. Their recent audit experience indicated that a good response rate to questionnaire surveys can also be obtained using the regular mails if the respondent has a special interest in the information being obtained Dulcy Sellon and John Schaefer agreed with the *Review* authors that mailgrams are effective attention-getters and may improve response rates in many situations. They wrote:

"During a recent assignment we confirmed the inventory of Commodity Credit Corporation-owned commodities held by commercial warehouses located in 27 states. We asked warehousemen to verify a list of warehouse receipts identified by quantity and quality factors. For some of the warehouses the list of inventory receipts extended to over 100 pages of computer printouts.

"We included a return envelope and asked the warehousemen to verify the inventory and return the entire computer listing to us. Within 14 work days, we had received 147 responses, for a response rate of 92 percent. We sent second-request letters after 3 weeks. In the end, after 28 working days from the mailing of the original requrest, we received responses from 158 of the 160 warehouses sampled, a 98.7 percent response rate.

"We believe this rapid and extensive response rate resulted from the warehousemen's interest in assuring that their inventory records agreed with those held by Commodity Credit Corporation. The warehousemen have an obvious interest in assuring correctness because they receive fees for the storage of government commodities.

"The results of our survey work suggest that a specific population with an interest in the survey will be prompted to respond rapidly. Thus we suggest that auditors consider the interest, financial or other, the surveyed population has in the questionnaire before deciding on the type of survey techniques to use."

Block Grant Reports Available

The Summer 1982 "Briefcase" article entitled "GAO and Block Grants" described two major products. One was the GGD-led study addressing early implementation of block grants in 13 States and the other was an IPE-led synthesis of evaluations of the five original block grants passed in the previous decade. These reports are now available from GAO Documents Distribution, room 1518, (202) 275-6241. Ask for "Early Observations on Block Grant Implementation," GAO/GGD-82-79, Aug. 24, 1982, and "Lessons Learned from Past Block Grants: Implications for Congressional Oversight," GAO/IPE-82-8, Sept. 23, 1982.

Huff, D. *How to Lie with Statistics.* New York: W.W. Norton, 1954.

Despite the irreverent title, a good guide to avoiding some misuses of statistics.

Nie, N.H., et al. *SPSS, Second Edition.* New York: McGraw-Hill, 1975.

Good descriptions of statistical techniques plus instructions on how to use the SPSS programs. Also see *SPSS, Update 7-9* published in 1981.

Ostle, B. and Mensing, R. *Statistics in Research: Third Edition.* Ames, Iowa: Iowa State University Press, 1975.

One of many books on traditional statistical techniques.

SOME STATISTICAL TOOLS FOR EVALUATION

Kind of Information \ Data Analysis Mode	Descriptive Statistics	Inferential Statistics		Exploratory Data Analysis Techniques
		Point and Interval Estimates	Test Statistics	
Central Tendency	Mean Median Mode	Sample Mean	t-statistic	Median Trimmed-mean Winsorized mean
Dispersion	Standard deviation Variance Range	Sample standard deviation	Chi square statistic	Midspread Box-and whisker plot Stem and leaf display
Frequencies	Proportions	Sample proportions	Chi square statistic	Stem and-leaf display
Association between two variables	Correlation coefficient Regression coefficient Two-way contingency table	Sample correlation coefficient Sample regression coefficient Two way table of sample data	Fisher s Z t statistic Chi square statistic	Scatter plot Tukey line
Comparison between groups	Difference between means standard deviations adjusted means rank ordered cases frequency distribution of categorical variables	Difference between adjusted sample means rank ordered sample cases sample frequency distribution	F statistic Mann Whitney U-statistic Chi square statistic	Stem and-leaf display Box and-whisker plot Re-expression Analysis of residuals

Porter, A.L., et al. "Misleading Indicators: The Limitations of Multiple Linear Regression in Formulations of Policy Recommendations." *Policy Sciences,* **13, (1981), 397-418.**

A close examination of the use of regression analysis in a variety of situations.

Tukey, J.W. *Exploratory Data Analysis.* **Reading, Massachusetts: Addison-Wesley, 1977.**

A large collection of techniques from one of the chief advocates for EDA.

Journal of Applied Psychology, 67, No. 2 (April 1982), 181-188.

Lippitt, Gordon and Ronald Lippitt. " 'Downsizing'—How To Manage More With Less." *Management Review,* 61, No. 3 (March 3, 1982), 9-14.

Magid, Renee Y. "Parents and Employees: New Partners in Child Care." *Management Review,* 71, No. 3 (March 1982), 38-44.

Mahoney, Francis X. "Team Development Part 5: Procedure Meetings." *Personnel,* 59, No. 3 (May-June 1982), 30-41.

McGarrah, Robert E. "Productivity: Illusions and Realities." *Management World,* 11, No. 5 (May 1982), 8-11.

Meyer, John H. and Teresa C. Meyer. "The Supervisor as Counselor—How To Help the Distressed Employee." *Management Review,* 71, No. 4 (April 1982), 42-46.

Ohmae, Kenichi. "See the Options Before Planning Strategy." *Management Review,* 71, No. 5 (May 1982), 46-55.

Prevatt, Lena B. "The Emerging Field of Human Resources Management." *Personnel Administration,* 27, No. 5 (May 1982), 81-87.

Purvis, Arthur J., "The Lone Ranger Syndrome: (Helping Supervisors to Ask for Help)." *Management,* 3, No. 1 (Winter 1982), 9-11.

Rummler, Geary and Alan Brache. "Quality, Productivity Are the Real Targets." *Government Executive,* 14, No. 1 (January 1982), 24-26.

Trotter, Richard, Susan Rawson Zacur, and Wallace Gatewood. "The Pregnancy Disability Amendment: What the Law Provides." Part I. *Personnel Administration,* 27, No. 2 (February 1982), 47-54.

_____, "The Pregnancy Disability Amendment: What the Law Provides." Part II. *Personnel Administration,* 27, No. 3 (March 1982), 55-58.

strategy for existing and future strategic weapons. This report indicated that because we can no longer predict the conditions under which nuclear weapons may have to be used, weapons systems should be assessed according to general performance capabilities, not specific application to a restrictive scenario.

Some of the nuclear force characteristics needed today are the same as those needed under previous deterrent strategies. For example, the ability to survive an attack and, once launched, a high probability of reaching the target have historically been important requirements. These capabilities are even more important today because escalation control may depend on how secure our forces appear and how vulnerable an adversary feels. Any enemy doubts about U.S. capability in either area could weaken our deterrence and increase the risk of escalation.

Other characteristics of nuclear forces need improvement to meet the demands of countervailing strategy. For example, to specifically tailor and quickly execute a response presupposes the ability to rapidly redirect our forces to appropriate tar-

gets. Similarly, the ability to attack or threaten high-value targets will demand greater accuracy.

Finally, two new requirements are essential to make our current deterrence credible. We need to (1) maintain high-alert for weeks or months after an attack and (2) retain enduring, flexible command and control of our nuclear forces, even after a nuclear attack. While these capabilities are present in existing forces to some extent, their presence is more fortuitous than calculated. The design of future systems, however, must maximize these characteristics.

The requirement for long-term endurance is perhaps the most fundamental and far-reaching change in force requirements. To carry out preplanned attacks, strategic forces needed only to survive a first strike and then quickly execute the preplanned option. Countervailing strategy, however, assumes that much longer periods of high-alert could be necessary, even after nuclear exchange.

A conventional conflict might also keep nuclear forces on high-alert status for weeks or months. This would strain the endurance of both U.S. and Soviet strategic forces. If

our capability declined more severely than the Soviet's, the lack of endurance could prompt an attack or require capitulation. If a nuclear war has already begun, escalation control could depend on the ability of surviving strategic systems to operate effectively amid nuclear exchanges and lengthy periods of high-alert status.

Epilogue

Current U.S. initiatives to modernize our nuclear arsenal have enlivened the 37-year-old debate on nuclear warfare. The debate focuses not on its desirability but on the best means of prevention. The fundamental tension between the long-term risks of a continued nuclear arms race and the short-term needs of nuclear deterrence is no closer to resolution today than it was in 1945.

At the beginning of this article we pointed out that nuclear deterrence grows ever more complicated. Other approaches to preventing nuclear war have been proposed. Among these are the movement supporting a freeze on nuclear weapons at current levels, efforts to achieve global re-

ductions in nuclear weapons, and the view of some that the western world should foreswear the first use of nuclear weapons.

Each of the many alternative approaches to avoiding nuclear war presents a different set of risks and challenges to human reason. All, however, require an understanding of how we got to where we are today.

Conclusion

Processes and systems matter only because they help people do what those people already want to do. And reform of these processes and structures can work only if the people involved share the goals of the reform. Process changes, of course, cannot create that commitment. Rather, they can only create mechanisms for translating that commitment into efficient and systematic action.

Notwithstanding this reservation, I think we will look back on the 1980's as a lively period for the budget. Policy attention will continue to focus on the budget. And this focus will include not just budget policy, but the processes and systems that formulate and execute it.

in getting a project started is the resistance that can emerge during formal study approval. Formal approval is especially troublesome for projects which are designed to probe highly sensitive subject areas. In these instances, understanding why the subject is sensitive, who views it as sensitive, and who will likely be the winners and the losers, will reduce the chances of having the project disapproved.

Even with an understanding of the reasons behind the sensitivity of the issue, there is still the difficult decision of what force and resources to use if the study is resisted. Decisions in this area depend on how important the issue is, whether it can wait for another day, and what are one's personal and professional values about the analyst's proper role.

Keeping a project afloat after approval can depend on a similar host of decisions, maneuvers, and perspectives. Often the analyst has the choice between an open approach, in which outside involvement, outside support, and a constant flow of information is maintained, and a closed approach, in which few outside contacts are made. With the closed route, there must be a legal precedent and a strong logic for limiting access. All too often the bureaucratic environment predisposes the evaluator to closed communications during the analysis stage of the process. Such closure, while providing protection and continuity, also narrows the perspectives and interests that go into a study. At a minimum, a passive announcement of the effort and design underway can bring valuable input from other interested parties.

The resistance encountered in getting a project approved and keeping it afloat reemerges when the evaluator tries to get the project used in the policy area. Indeed, much of the literature in program evaluation is a lament over the poor utilization of evaluation studies. Part of this problem can be overcome by effectively addressing the everyday obstacles of the bureaucracy, such as meeting deadlines, understanding the issues, and uncovering the appropriate data.

Reports which focus on relevant issues, support the analysis with credible data, and deliver the results in a timely fashion can overcome many of the barriers in getting evaluation reports used.

Conclusions

Bureaucratic organizations, while not always hospitable to evaluation techniques, can be the terrain for significant analytical contributions to policymaking. Important to achieving this is knowledge of the organization and careful cultivation of its resources. The knowledge component cannot stand alone, however, because insight into the organization in and by itself is likely to produce only anecdotal and fragmentary information. The integration of both organizational and program knowledge with sound analytical technology is necessary to the completion of the evaluation circle. Together, these can produce a timely, relevant, and reliable analysis.

load, though not as diversified as most regions, gives us unique opportunities to travel and contribute to GAO's goals.

The European Branch is a close-knit family of people who live, play, and work together as a team. We strive for excellence in our work and in our staff."

We're Unofficial Ambassadors

Naturally, as Americans, we are rather conspicuous wherever we go. And we're looked upon by the German people as prime examples of the American way of life. Our very presence here automatically places us in the role of unofficial ambassadors of the United States. We've found that good relations between Germans and Americans require only a sincere desire to understand one another, plus a willingness to accept one another as friendly human beings with valid and time-honored reasons for being different.

and administrative agencies at the national level, the second treats relations between States, and the third focuses on State-local relations. Updated reference notes at the end of each chapter lead readers to current research and information sources. By increasing examples, charts, figures, and diagrams, the present text is much more readable than the earlier edition.

All in all, *Understanding Intergovernmental Relations* is a superb primer. This second edition shows that it remains an important contribution to understanding how and why over 38,000 units of government manage to get along in our Federal system.

John M. Kamensky
Program Analysis Division

GAO Staff Changes

As we are going to press, Comptroller General Bowsher announced several organizational changes within GAO and especially within the Office of the Comptroller General itself. Henry Eschwege will be Assistant Comptroller for Planning and Reporting, Frank Fee will be Assistant Comptroller General for Operations, Greg Ahart will be Assistant Comptroller General for Human Resources, and John Heller and Harry Havens will continue as Assistant Comptrollers General for Policy and Program Evaluation, respectively. A future issue of the Review *will cover these changes in detail.*

Philip A. Bernstein

Mr. Philip A. Bernstein has been named as director, Human Resources Division, effective October 1, 1982.

Mr. Bernstein, a graduate of George Washington University (AB 1958), joined GAO in 1960 and carried out diverse and increasing responsibilities in the former Civil Division. At the time of the reorganization in 1972, he was in charge of GAO's work at the former Atomic Energy Commission and served briefly in that capacity in the newly formed Resources and Economic Development Division. In 1972, he was named regional manager in Seattle. In 1976, he returned to headquarters as deputy director of Management Services and in 1978 moved to the Human Resources Division as deputy director.

Jim Hall

Mr. Jim Hall, manager of GAO's Los Angeles regional office, is retiring from the agency on September 17, 1982.

Mr. Hall joined GAO in 1952 in the San Francisco regional office. In 1963, he transferred to the Civil Division as assistant director, becoming an associate director in 1967. Mr. Hall then left GAO for a position in the Office of the Secretary of the Interior, returning to GAO in 1972 as associate director in the Federal Personnel and Compensation Division. He became manager of the Los Angeles regional office in 1973.

Mr. Hall is a graduate of the University of Southern California and is a CPA (California). He has received numerous awards, including the FOD Director's Award.

Following his retirement, Mr. Hall will join the Hughes Aircraft Corporation in Los Angeles as manager of the Business Division.

David P. Sorando

David P. Sorando, regional manager, Boston regional office, retired from GAO on September 3, 1982.

Mr. Sorando began his career with GAO in 1953 with the New York regional office. He served as the manager in three regions: Cincinnati, Washington, and Boston. He was also a deputy director in two headquarters divisions, the Manpower and Welfare Division (now HRD) and the Federal Personnel and Compensation Division.

Mr. Sorando graduated from Fordham University after two tours of military service. He attended the Harvard Program for Management Development in 1962 and the Federal Executive Institute 8-week program in 1972. He received the GAO Meritorious Service Award in 1975, the Comptroller General's Award in 1976, and GAO's EEO Award in 1980. He has also been cited by the Federal Government Accountant's Association, the Cincinnati Federal Executive Board, the Federal Executive Institute, and the U.S. Army Finance Center, Fort Benjamin Harrison, Indianapolis, among others.

Carl E. Wisler

Mr. Carl E. Wisler has been selected for the position of associate director in the Institute for Program Evaluation with responsibility for evaluation methodology development assigned to GAO under title VII of the Congressional Budget Act, and for measurement assistance to other GAO divisions.

Mr. Wisler began his career with the Federal Government in 1957 as a physicist/operations research Analyst with the Naval Missile Center in California. He came to Washington in 1967 and was employed as an operations research analyst with the Office of Education. In 1970, Mr. Wisler was promoted to Education Evaluation Officer with the Department of Education. Since joining GAO in 1980, he has served as a supervisory operations research analyst in IPE.

Mr. Wisler received an M.S. from Kansas State University. He is a member of the American Association for the Advancement of Science, American Educational Research Society, Evaluation Research Society, Kappa Mu Epsilon (National Honorary Mathematics Fraternity), and Lambda Delta Lambda (National Honorary Physical Science Fraternity).

Richard J. Woods

After more than 33 years of Federal service, Richard J. Woods, associate director, Community and Economic Development Division, retired on July 10, 1982.

Mr. Woods joined GAO in August 1951 from the Corporation Audit Co., Washington, D.C. His experience with GAO included audits of the Federal Prison Industries, Inc.; Tennessee Valley Authority; National Bureau of Standards; Department of the Interior; Bureau of Public Roads; Department of State, International Operations Division; Department of Labor, Federal Executive Institute, Department of Agriculture; Office of the Director; and Department of Housing and Urban Development.

Mr. Wood received the Comptroller General's Award (Group) in 1976, the Director's Award in 1976, Distinguished Service Award in 1974, and a Certificate of Merit in 1978.

Additional Staff Changes

NEW SUPERVISORY GAO EVALUATOR

Field Operations Division-Denver
  James K. Meissner
Mission Analysis and Systems Acquisition Division
  Patrick S. Donahue
  Charles F. Rey
  Homer H. Thomson
Program Analysis Division
  Franklin Frazier
  Natwar M. Gandhi

NEW SUPERVISORY OPERATIONS RESEARCH ANALYST

Accounting and Financial Management Division
  Samuel E. Oliver
Institute for Program Evaluation
  David A. Rogers

NEW SUPERVISORY ECONOMIST

Program Analysis Division
  Geraldine A. Gerardi

NEW SUPERVISORY REGULATORY POLICY ANALYST

Program Analysis Division
  JayEtta Hecker

NEW COMPUTER SPECIALIST

Mission Analysis and Systems Acquisition Division
  Harold J. Podell

NEW ELECTRONICS ENGINEER

Mission Analysis and Systems Acquisition Division
  George A. Sousa

RETIREMENTS

Charles D. Allegrina	GAO Evaluator	FOD-Detroit
Mary J. Cook	Lead Clerk-Stenographer	FOD-Detroit
Earl L. Darrah	Supervisory GAO Evaluator	Energy and Minerals Division
Helen L. Durham	Secretary	International Division
Patricia M. Gill	Secretary	Office of the Comptroller General
Andrew B. (Ben) McConnell	Special Assistant to the Director	Program Analysis Division
Jesse R. Nicholson, Jr.	GAO Evaluator	Procurement, Logistics and Readiness Division
Sattanie Onanian	Secretary	Human Resources Division
Katherine E. Orf	Secretary	FOD-Washington
Hattie R. Puryear	Adjudicator	Accounting and Financial Management Division
John J. Reese	GAO Evaluator	FOD-Dallas
Eleanor M. Seward	Editorial Assistant	Office of the General Counsel
Masaharu Yoshioka	GAO Evaluator	FOD-San Francisco
Louis E. Zott	GAO Evaluator	FOD-Denver

Attritions

The following staff members left the agency during the period March 8-June 4, 1982.

Division/Office	Name	To
Accounting and Financial Management Division	Susan Baker	Private industry
	Mike Baskin	Law school
	William Farrell	Private industry
	William Greyard	Air Force
	George Hart	Private industry
	Charles Tyler	Department of Defense
Community and Economic Development Division	Glen B. Wolff	Department of Housing and Urban Development
Energy and Minerals Division	Patricia Foley	CRU Consultants
	Susan Matiatios	Arthur Young & Co.
	Phoebe Rolen	Department of the Army
	George M. Saverno	HRB-Singer, Inc.
	Beth Ward	Home
Human Resources Division	Patricia A. Hoffman	Central Intelligence Agency
	Edmond J. Mihalski	Senate Finance Committee
	Phillip E. Neel	Private industry
Mission Analysis and Systems Acquisition Division	Paul H. Kaeppel	U.S. Navy
Program Analysis Division	Jeffrey A. Benjamin	Central Intelligence Agency
	Gayle L. DeLong	Graduate school

Attritions - continued

Atlanta	Ramona Grizzard	Private industry
	Nancy D. Lynch	Internal Revenue Service
Boston	Michele Silva	Not specified
Denver	Betty Hawley	Department of Energy
Kansas City	Mary K. Miller	Maternity
Los Angeles	Loren Dear	Air Force Audit Agency
	Jerry W. Dorris	Air Force Audit Agency
	Dennis G. Schilher	Air Force Audit Agency
	Michael Carlson	Not specified
New York	Ollie Jackson	Department of Defense
Norfolk	Carmen Y. Thomas	Norfolk Naval Shipyard
Philadelphia	Roseanna Callaghan	Private industry
	Carol McConway	Private industry
	Michael B. McCormick	Department of Commerce
San Francisco	Han Hansen	Office of Inspector General
Seattle	James L. McMullin	Not specified
	Eulanda D. Wyckoff	Air Force
Washington	Arthur S. Moldenhauer	Department of Defense
	Beverly A. Richardson	Maternity

Editor's Note: "Attritions" is an experimental addition to "GAO Staff Changes." Please write a note to Diane Grant, Room 7124, if you would like to see this column continued or have suggestions for it.

NEW STAFF MEMBERS _____

The following new staff members reported for work during the period March 8, 1982, through June 30, 1982.

Accounting and Financial Management Division	**McKee, Richard N.**	**Office of Personnel Management**
General Services and Controller	**Paulson, Louis**	**Deloitte, Haskins and Sells**
Office of Information Systems and Services	**Canick, Maureen L.**	**U.S. Bureau of the Census**
Office of Security and Safety	**Green, Roger W.**	**Federal Protective Service**
Program Analysis Division	**Gerardi, Geraldine A.** **Tuck, Charles C.**	**Department of Energy** **Department of Energy**

REGIONAL OFFICES

Los Angeles	**Jimenez, Fred**	**Social Security**
New York	**Parker, Florence**	**Small Business Administration**

Professional Activities _____

Office of the Comptroller General

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

Institute of Internal Auditors, 41st International Conference, Washington, July 12.

President's Council on Integrity and Efficiency, Washington, Aug. 3.

John D. Heller, Assistant Comptroller General for Policy and Program Planning, addressed the following groups:

OPM Executive Seminar on Public Program Management, on "The Role of GAO in Program Results Studies," Kings Point, NY, Apr. 8 and June 4.

Syracuse University, Maxwell Graduate School of Citizenship and Public Affairs, on "The Evolving Role of the General Accounting Office Under the New Comptroller General," Washington, May 26.

Harry S. Havens, Assistant Comptroller General, participated at the Association of Government Accountants' National Professional Development Conference. His workshop topic was "Government Budgetary Reforms: An Agenda for the Eighties." The Conference was held in Denver, June 14-16.

Office of the General Counsel

Seymour Efros, associate general counsel, spoke on "Current Developments and Trends in Government Acquisition" before the 12th Annual Symposium on Government Acquisition, sponsored by the North Alabama Chapter of the Federal Bar Association, in Huntsville, AL, Apr. 13.

Richard R. Pierson, associate general counsel, spoke on "Congres-

sional Oversight and the General Accounting Office" before a Symposium on Accountability and Oversight for the Department of Education sponsored by the Government Affairs Institute, Office of Executive and Management Development, Office of Personnel Management, June 4.

Ronald Berger, assistant general counsel:

Addressed a seminar on Government ADP Acquisition in Alexandria, VA, Apr. 21.

Spoke on "GAO Audits" before a program of the American Bar Association National Institute entitled "The Hazards of Contracting with the Government," May 14.

Ronald Wartow, deputy assistant general counsel:

Addressed the Forest Service National Contracting Officer's Workshop on bid protests, in Salt Lake City, UT, Mar. 22.

Spoke before the National Institutes of Health Research Contracting Committee Symposium on research and development contracting, in Gaitherburg, MD, May 7.

Personnel

Felix R. Brandon, II, director of Personnel, attended the Directors of Personnel Conference on Performance Appraisal—Reducing the Workload, sponsored by the Interagency Advisory Group (IAG), in Crystal City, VA, Apr. 7.

Accounting and Financial Management Division

Wilbur D. Campbell, acting director:

Gave a luncheon speech on "GAO's Perspective of Financial Accountability" to the Baltimore

Chapter, Association of Government Accountants, Essex Community College, Baltimore, May 4.

Served as Chairman and gave opening remarks at the National Intergovernmental Audit Form Joint Conference, May 10-12, in Nashville. He also served as moderator on sessions including form effectiveness, single audit, planning, reporting, and quality review.

Selected as president-elect for the coming year for the Northern Virginia Chapter, Association of Government Accountants.

Walter L. Anderson, senior associate director, spoke on "The Impact of Microcomputers on the Auditing Profession" before the AGA Capital Region Chapter's seminar on "The Automated Office of the Future: Office and Audit Applications," in Washington, May 10.

Brian Usilaner, associate director:

Spoke on "Managing for Productivity" at the Women in Government Annual Conference, Washington, Mar. 19.

Gave the keynote address on "Doing More With Less" for the Philadelphia Chapters of the American Society for Public Administration and the International Personnel Management Association Annual Conference, Mar. 31.

Gave the keynote address on "Importance of Productivity in Defense" at an Air Force Productivity Conference, Washington, May 18.

George L. Egan, Jr., associate director:

Participated as a moderator in a panel discussion for "The Single Audit Concept, Where Is It Going?," and "The Office of Inspector General, Where Is It Going?," for an AICPA Educational Conference—"The Changing Environment in Audit," Los Angeles, Mar. 9-10.

Participated as a panelist in the first conference of the National Association of State Comptrollers, Arlington, VA, Mar. 31.

Spoke on "Fraud and Waste in Government," before the Federal Executive Board, Houston, Apr. 20.

Participated as a panel member of the Mid-America Intergovernmental Audit Forum, Kansas City, Apr. 28-29.

Spoke on "The Single Audit—The Audit Guide and Compliance Requirements," before the Association of Government Accountants, Nashville, May 13.

Spoke at the Municipal Finance Officers Association's 1982 Annual Conference on "The Economics of Government Auditing—Are We Paying Too Much or Too Little?," New Orleans, May 24-26.

Ronald J. Points, associate director:

Spoke on "Internal Control—The Responsibility of Management," at the American Society for Public Administration National Conference, Honolulu, Mar. 23.

Spoke on GAO Audit Standards at the Municipal Finance Officers Association Colloquia in Albany, NY, and Austin, TX, Apr. 16 and 19.

Spoke on the GAO Audit Standards and The Governmental Accounting Standards Board at the 5th Annual Conference of Virginia CPAs in Williamsburg, VA, Apr. 22.

Spoke on the "Governmental Accounting Standards Board— Myths and Facts," at the American Accounting Association Mid-Atlantic Regional Conference at The Meadowland, NJ, Apr. 24.

Spoke on the Governmental Accounting Standards Board and "The Future for Government Accountants in View of Reaganomics and the New Federalism" at the Association of Government Accountants Conference in Nashville, May 13-14.

Received the Northern Virginia Chapter, Association of Government Accountants' Distinguished Leadership Award, Springfield, VA, May 18.

Carl R. Palmer, group director, spoke on "GAO's Reports on Computer and Communications Acquisitions" at the National Academy of Science Panel on Federal Computer Acquisition, in Washington, May 11.

W.A. Broadus, group director:

Spoke on "Government Auditing" at the monthly Northern Virginia Society of CPAs, Mar. 9.

Spoke on "1981 Revised Audit Standards" at the HUD Staff Development Conference, in Columbia, MD, Mar. 15.

Spoke on "1981 Revised Audit Standards" at the Municipal Finance Officers Association Colloquia in Seattle, WA, on Mar. 22 and in Los Angeles on Mar. 24.

Presented a workshop on "1981 Revised Audit Standards" at the Staff Development Conference of the Defense Audit Service, in Leesburg, VA, Mar. 29.

Spoke on the "1981 Revised Audit Standards" at the Annual Conference of State Comptrollers, in Crystal City, VA, Mar. 30.

Presented workshops on the "1981 Revised Audit Standards" to U.S. audit personnel assigned to West Germany, in selected locations throughout West Germany, week of Apr. 5-9.

Presented workshops on the "1981 Revised Audit Standards" to several Association of Government Accountants chapters.

Presented a workshop on "Government Auditing" at the Annual Missouri Society of CPAs' conference in Jefferson City, Apr. 22.

Joseph J. Donlon, senior group director, received a distinguished speakers award from the Department of Agriculture Graduate School for several speeches made at the Grad-

uate School's Senior Financial Management Seminars, in Washington, May 12.

Robert A. Pewanick, group director, assumed the Office of President of the Washington Chapter of the Association of Government Accountants, in June.

Larry Sullivan, group director, discussed "GAO's Efforts to Prevent Fraud in Government Programs," before the Pacific Northwest Intergovernmental Audit Forum, Seattle, Apr. 22.

Anthony Csicseri, group director, participated in a panel discussion on "The Airspace System Plan—Congressional Interest in Air Traffic Control Computer Modernization and FAA's Response to Congressional Recommendations," in Washington, Mar. 9.

Steve Sadler, group director, and **Dennis Stowe,** systems accountant, were selected as Directors of Financial Management Assistance and of Professional Activities, respectively, for the Northern Virginia Chapter of the Association of Government Accountants, for 1982-1983.

Ernst F. Stockel, senior accountant, spoke on "EDP Auditors' Roles in the Organizations They Serve" before a meeting of the National Capital Area Chapter of the EDP Auditor's Association, Washington, May 25.

Raymond C. Kudobeck, systems accountant, was appointed Meetings Chairperson of the Washington Chapter of the Association of Government Accountants, in June.

David B. Shumate, systems accountant, was reappointed Chairman of the Publicity Committee of the Washington Chapter, Association of Government Accountants, in June.

Peter Lemonias, evaluator, spoke on "Managing For Productivity" at the Internal Revenue Service's Productivity Coordinator Training Conference, Crystal City, VA, May 20.

Jerry F. Wilburn, credit and collection system analyst, gave a presentation on current legislative and ad-

ministrative initiatives regarding Federal debt collection activities, before the Public Affairs Public Relations Committee of Associated Credit Bureau, Inc., in Houston, May 5.

Gloria V. Gatewood, secretary to the associate director, Financial System Group, accompanied personnel specialists from GAO and spoke to a group of students at the Charles County Community College, La Plata, MD, for secretarial recruitment, Mar. 17.

Edward Wingfield and **Russell D. Schmidt,** computer auditors, spoke on "EDP Auditing in GAO" before Representatives of the Comptroller General of Mexico, in Washington, Apr. 1.

J. Chris Farley, management analyst, spoke on legislation affecting debt collection before a debt collection workshop, and with **Mike Baskin,** credit analyst, participated in a concurrent workshop on waiver processing at a Joint Military Service's Information Exchange Program, Kansas City, Apr. 13-14.

Paul Benoit, computer specialist, discussed "GAO's Systems Approval Process: Criteria, Methodologies, and Experiences," before students in a graduate-level course on "Information Systems in Management" at Bowie State College, Maryland, Apr. 26.

Joint Financial Management Improvement Program

Susumu Uyeda, executive director:

Spoke on central agencies' initiatives at the DOD Information Exchange Commander's Conference, Indianapolis, May 5-6.

Spoke on cash management at the Joint Conference of the National and Regional Audit Forums, in Nashville, May 10-12.

Is national president-elect of the Association of Government Accountants.

Doris Chew, assistant executive director, was selected as director of education for the Washington Chapter of the Association of Government Accountants.

Ken Winne, senior project director:

Gave a presentation on the Grant Cash Management Study to the National Association of State Comptrollers Conference in Washington, Mar. 30.

Is president-elect for the coming year for the Washington Chapter of the Association of Government Accountants.

Community and Economic Development Division

Joe Maranto, evaluator, discussed GAO's report on illegal and unauthorized activities on public lands, in a radio interview broadcast over CBS News affiliate KYXI (Portland, OR), Mar. 16.

Dave Jones, issue area planning director, and **Stan Ritchick,** evaluator, discussed GAO's report, "States' Compliance Lacking in Meeting Safe Drinking Water Regulations," before the Association of Metropolitan Water Agencies, in Washington, Mar. 18.

John Hunt, evaluator, participated in a workshop on "How Abandoned Hazardous Waste Sites Can Best Be Ranked in Order to Most Effectively Allocate Superfunded Monies for Remedial Action," in Washington, Mar. 19-20.

Henry Eschwege, director, spoke on "The Functions of the General Accounting Office," before the Brookings Institution's Conference for Business Executives on Government Operations, in Washington, Apr. 5.

Frank Subalusky, group director, led a discussion on developing a Federal plan for a quality improvement program for the U.S. fishing industry, before the National Marine Fisheries Task Force, in Washington, Apr. 14-15. **Mark Clark,** evaluator, participated in the discussion.

Jerry Killian, group director, spoke on GAO's role in reviewing Federal nutrition programs and issues, before the Nutrition Policy Seminar of the National Nutrition Consortium, Washington, Apr. 27.

Cathy Slesinger, evaluator, was recently interviewed by Jim Wynbrandt of New York's Progressive Radio Network on CED's report, "Small Car Safety: An Issue That Needs Further Evaluation" (CED-82-29, Apr. 26, 1982).

Ralph Lamoreaux, evaluator, discussed "The Role of the General Accounting Office and Its Relation to Agricultural Research," before the Cooperative State Research Service workshop for new research administrators, in Washington, May 12.

Walter Hess, evaluator, discussed "The Mission of and the Federal Role in the Cooperative Extension Service," before the National Agricultural Research and Extension Users Advisory Board, Beltsville, MD, May 18.

General Government Division

John Butcher, senior evaluator, was elected Treasurer of the Washington Chapter of the National Association of Accountants for 1982-83.

William J. Anderson, director:

Addressed The Brookings Institution Conference for Business Executives on Federal Government Operations, Washington, Mar. 23.

Was key speaker and panelist at Spring Pacific Northwest Intergovernmental Audit Forum meeting in Seattle, WA, on Discussion on Block Grants and on Quality Control Over Audits, Apr. 23.

Addressed the 1982 Annual Meeting of the National Association of Tax Administrators on GAO's study of the State Taxation of Multijurisdictional Business, New Orleans, June 1.

Sebastian Correira, Jr., group director, as part of a panel discussion on Block Grant Implementation,

briefed the Eastern Regional Conference of the Council of State Governments on the results of GAO's Block Grant Transition Review, in Boston, May 7.

Human Resources Division

Maurice Moody, senior evaluator, and **Gary Ziebarth,** Seattle, evaluator, spoke on GAO's report, "Labor Should Make Sure CETA Programs Have Effective Employability Development Systems" (HRD-82-2, Jan. 13, 1982) before the Workshop on Employability Development Planning, sponsored by the Tennessee Employment and Training Institute, Nashville, Apr. 22.

Ed Mihalski, evaluator, spoke on "Federal Policies Impacting on End Stage Renal Disease Care," at the 13th Annual National Symposium of the American Association of Nephrology Nurses and Technicians, Chicago, Apr. 15.

Patricia Moore, senior evaluator, was interviewed by WXRT Radio, Chicago, about the report, "Implementation of the Phaseout of CETA Public Service Jobs" (HRD-82-48, Apr. 14, 1982).

Charles Trahan, evaluator, spoke on "Stress and Coping," at the University of the District of Columbia's Third Annual Peer Counseling Conference, Washington, May 13.

Mort Henig, associate director, discussed GAO's review of the closure of the Community Services Administration, at a workshop on "Lessons Learned in Closing Down or Scaling Down Government Operations," at JFMIP's Financial Management Conference, Washington, Mar. 22.

Jim Walsh, group director, wrote a chapter, "Cost of Home Services Compared to Institutionalization," in *Community Housing Choices for Older Americans,* edited by M. Powell Lawton and Sally L. Hoover. His chapter is based on GAO's extensive reviews of the well-being of older people in Cleveland, Ohio.

Institute for Program Evaluation

Eleanor Chelimsky, director:

Delivered the keynote address, "The Contributions of Evaluation to Constructive Governmental Change" at OPM's 2-week residential seminar on program evaluation, May 18.

Delivered the keynote address, "Evaluation's Contribution to Constructive Governmental Change" at the Eastern Evaluation Research Society's annual conference in New York City, May 24.

Venkareddy Chennareddy, economist, presented a paper entitled "The Impact of Gasoline Price and Shortage on the Visits to National Park Recreation Facilities," which was coauthored by **Heber Bouland,** supervisory operations research analyst, at the annual meeting of the Eastern Economic Association, Apr. 29-May 1.

Wallace M. Cohen, senior group director, designed and taught a course on evaluation to senior executives at the Federal Executive Institute, in Charlottesville, VA, the week of Apr. 5.

Odille S. Hansen, program analyst, used her skills to help the Northern Virginia chapter of the American Heart Association evaluate public awareness of the signals and symptoms of heart attacks.

Arthur J. Kendall, statistician, chaired a session on classification at the joint meeting of the Psychometric Society and the Classification Society in Montreal, June 2.

Bruce D. Layton, social science analyst, is coauthor of a chapter, "Ethical Conflict in Clinical Decision Making: A Challenge for Family Therapists," published in *Values, Ethics, Legalities and the Family Therapist,* edited by J.C. Hansen and L. L'Abate.

Garry L. McDaniels, deputy director, discussed evaluation activity under circumstances of the current budget at a National Institute for

Public Affairs seminar on Management Issues in the Public Services, May 11.

Eric A. Peterson, social science analyst, took part in a panel discussion on "Welfare State Periods and Cycles," at the Third International Conference of Europeanists, in Washington, May 1.

James H. Solomon, operations research analyst, spoke on "Home Health Care: What Is It?" before a conference sponsored by the United Hospital Fund of New York, in New York, Apr. 5.

Ray C. Rist, deputy associate director:

Presented a training workshop on qualitative evaluation methods at the American Educational Research Association national meeting in New York City, in March.

Has published the article, "Walking Through a House of Mirrors: Youth Employment and Education Training" in *Urban Development,* 1982.

Was the keynote speaker at a Western New York State meeting of education and business leaders working to develop effective school-to-work transition strategies, in New York, in April.

Has published the article, "Beyond the Quantitative Cul-de-sac: A Qualitative Perspective on Youth Employment Programs" in *Policy Studies Journal,* 1982.

Waverly E. Sykes, Jr., operations research analyst, discussed "Insights and Inferences: A Reflect on 'Models, Data, and War' " before the Workshop on Modeling and Simulation of Land Combat, cosponsored by the Army Research Office and the Georgia Institute of Technology, in Pine Mountain, GA, Mar. 28-31.

Harold C. Wallach, statistician:

Organized and chaired a session on "Changing Families and Value Systems" at a meeting cosponsored by the National Council of Associations for the Policy Sci-

ences and the D.C. Chapter of the World Future Society, Washington, Feb. 26.

Presented a paper on "Developing a Typology of Counties to Address Human Services Delivery and Socio-Economic Impact Issues," at the University of Wisconsin's fifth annual conference on the small city and regional community, Mar. 24-26.

Mission Analysis and Systems Acquisition Division

Donald E. Day, senior associate director:

Spoke on "The Role of the GAO in Major Acquisitions" at the Navy Systems Acquisition Management School, Washington, Apr. 23, and at the Defense Systems Management College, Fort Belvoir, VA, May 10.

Participated in an informal panel discussion on various procurement and systems acquisition issues at the National Security Industrial Association's Spring Procurement Committee Program, Hot Springs, VA, June 7.

C. William Moore, Jr., associate director, discussed "The Role and Evolution of Defense Technology Management" before the American Defense Preparedness Association's Science and Engineering Symposium, White Oak, MD, May 5.

John G. Barmby, assistant to the director for systems analysis, chaired a panel on "The Impact of Human Factors for Cost Reduction of Weapon Systems" at a quarterly meeting of the Management Committee of the American Institute of Aeronautics and Astronautics, Baltimore, May 26.

Lester C. Farrington, Jr., group director, spoke on "GAO's Role in Test and Evaluation," at the Naval Training Development Center, Orlando, FL, Mar. 31, and at the Defense Systems Management College, Fort Belvoir, VA, Apr. 29, and Vandenberg AFB, CA, May 26.

Bernard D. Easton, group director, was interviewed by broadcasters from various U.S. and foreign radio stations following the release of GAO's report, "DOD's Space-Based Laser Program—Potential, Progress, and Problems" (C-MASAD-82-10, Feb. 26, 1982).

David G. Sapp, senior evaluator, spoke before the Defense Systems Management College on "GAO's Role in Test and Evaluation," Fort Belvoir, VA, Apr. 29.

Procurement, Logistics and Readiness Division

Clark Adams, group director, discussed the past, present, and future of cost accounting standards, before the American Society of Military Comptrollers, in New Orleans, May 21.

Ron King, senior evaluator, discussed "Moving the Building Process into the 21st Century," at the 1982 International Conference on Computers/Graphics in the Building Process, in Washington, March 26.

Ray Dunham, group director, participated in the ADPA Executive Seminar on Ammunition Programs, in Orlando, FL, Apr. 22.

As a visiting lecturer in Sweden, **Julia Denman,** senior evaluator in PLRD, gave several lectures and discussed Life Cycle Costing and Logistics Management issues with representatives of Swedish private industry, government agencies, and the Society of Logistics Engineers during the week of May 3-10.

Program Analysis Division

Kenneth W. Hunter, senior associate director:

Spoke on "The Future of Budget and Program Analysis" and moderated a plenary panel on "Implementing the Major Changes of the Reagan Administration" at the spring symposium of the American Association for Budget and

Program Analysis, in Washington, May 7-8.

Took part in the first annual meeting of the newly created Issues Management Association, as one of the 20 cofounders from private industry, research, and government, hosted by The Congressional Research Service, in Washington, Mar. 25.

Osmund T. Fundingsland, associate director, briefed the National Academy of Sciences' Committee on Government-University Relationships in Support of Science on PAD's related ongoing assignments, in Washington, Apr. 12.

Mary R. Hamilton, group director gave a presentation on "Government Approaches to Innovation" at the 1982 national conference on Industrial Science and Technological Innovations, sponsored by the National Science Foundation in Sturbridge, MA, May 5.

James Bothwell, economist, coauthored an article, "Efficiency in the Provision of Health Care: An Analysis of Health Maintenance Organizations," published in the April 1982 edition of *Southern Economic Journal.*

Gwendolyn B. Moore, social science policy analyst, spoke on the policy analysis process as it relates to our small business innovation report (PAD-81-15, July 7, 1981), at Pennsylvania State University, May 13.

Howard Gobstein, science policy analyst, participated in a panel discussion on research instrumentation before the National Academy of Sciences' Committee on Government-University Relationships in Support of Science, in Washington, Apr. 13.

Field Operations Division

Atlanta

Marvin Colbs, regional manager, spoke on "Carrying Out Oversight Functions—How GAO Interfaces with DOD," to the Professional Military Comptroller School, Maxwell

AFB, AL, May 6.

Pat Darnell, assistant regional manager, spoke on "Thinning the Waste of Big Government," to the Atlanta Central Chapter of the National Association of Accountants, Atlanta, Apr. 19.

Gene Barnes, evaluator, spoke on GAO functions and responsibilities and future career opportunities with GAO, to the Accounting Club at Mercer University, Atlanta, May 4.

Cincinnati

Owen Barnhart, evaluator, is the new AGA Cincinnati Chapter President.

Dallas

Joe Quicksall, supervisory evaluator, spoke on "The Telephone—An Effective Weapon in the Fight Against Fraud, Waste, and Abuse," at a luncheon meeting of the Federal Executive Board, Dallas, Mar. 16.

Denver

Robert W. Hanlon, regional manager, discussed the roles and responsibilities of a regional office with Denmark's Auditor General Jorgen Bredsdorff, at the Denver regional office, May 13.

James K. Meissner, evaluator, spoke on:

"GAO's Role in Program Management" at the Office of Personnel Management's Public Program Management seminar, at the Western Executive Seminar Center, Denver, Mar. 22

"Federal Water Availability for Energy Development" at the American Society of Civil Engineers' Conference on Water and Energy: Technical and Policy Issues, Ft. Collins, CO, June 29.

Bill J. North, evaluator, has been appointed to the Career Education Committee of the Colorado Society of Certified Public Accountants for the 1982-83 year.

Ralph K. Spencer, III, evaluator, received an Outstanding Service Award from the Association of Government Accountants' Denver Chapter for his sustained, excellent contributions to the chapter over the last 4 years.

Kansas City

David A. Hanna, regional manager, and **Susanne Valdez,** evaluator, attended the Mid-America Intergovernmental Audit Forum meeting in Kansas City, Apr. 29. The meeting topic was "Contracting for Audit Services." Mr. Hanna is the Chairman and Ms. Valdez is the Executive Director of the Mid-America Forum. They also met on Apr. 28 with representatives of the Iowa, Nebraska, Missouri, and Kansas CPA Societies.

Gary Billen, evaluator:

Spoke on "The Importance of Being Able to Access Computerized Records in Auditing Federal Programs and Financial Records," before a systems accounting class at the University of Missouri, Kansas City, 1982.

Participated in Oklahoma University's 1982 Career Fair, Apr. 21-22. The focus of the Career Fair was to help the students understand the difference between the "Academic World" and the "World of Work." He visited an accounting class and facilitated a discussion on the various types of accounting, auditing, and evaluating professions available in the Government. After the class visit, he set up a booth at the Career Fair and explained the opportunities in GAO ranging from the cooperative education program to the career service.

Los Angeles

Ron Bononi, senior evaluator, spoke on "GAO Perspective of Selected DOD Acquisition Initiatives" before the Beach Cities Chapter, National Contract Management Association, May 11.

Fred Gallegos, evaluator:

Taught a graduate course on "Management Information Systems" during the spring quarter at California State Polytechnic University, Pomona.

Taught three 1-day courses on EDP auditing for the Western Intergovernmental Forum, Apr. 13-15.

Norfolk

Nixon Williams, senior evaluator, participated in an on-the-air interview over WEEI radio, concerning GAO report HRD-82-36, "Physician Cost Containment Training Can Reduce Medical Cost," Boston, Apr. 26.

Donald Ingram, senior evaluator, spoke on "Computer Auditing" as part of a training seminar sponsored by the local chapter of the American Society of Women Accountants, Norfolk, Apr. 24.

Philadelphia

Cliff Martin, evaluator, and **Hilary Stephenson,** evaluator, served on the Conference Committee for "Less is More: Doing More With Less." The 1-day conference was cosponsored by the Philadelphia chapters of the American Society for Public Administration and the International Personnel Management Association. The conference was attended by over 100 professionals from Federal, State, and local governments, Mar. 31.

Ralph Carlone, regional manager, spoke before the Philadelphia Chapter of the National Association of Accountants, on GAO's past, present, and future, Apr. 22.

San Francisco

Charlie Vincent, senior evaluator:

Presented a seminar for the San Jose Chapter of the Institute of Internal Auditing on "Innovations in Operational Auditing," San Jose, Apr. 7.

Presented a seminar for the GSA Regional Inspector General staff on "Operational Auditing," San Francisco, Apr. 30.

Received an AGA chapter service award for eductional contributions

to the Peninsula-Palo Alto Chapter of AGA, in May.

Jack Birkholz, senior evaluator:

Spoke to the San Francisco Chapter of the EDP Auditors Association on "Developing and Documenting EDP Audit Findings," Apr. 20.

Taught a course on "Developing Report Findings for California State Auditors," Sacramento, Apr. 19.

Jeff Eichner, senior evaluator, spoke to the Sonoma State University Accounting Forum on "Efficiency, Economy, and Effectiveness," Rohnert Park, Mar. 30.

George Hartmann, senior evaluator, **Steve Reed,** senior evaluator, **Jack Birkholz,** senior evaluator, and **Genevieve Niedzwieki,** secretary to

the regional manager, received certificates of appreciation in April from the Peninsula-Palo Alto Chapter of AGA for their contributions to the chapter.

Seattle

William Taylor, evaluator, discussed his experiences in Seattle Pacific University's Weekend University Program on the King-TV (NBC affiliate) program, "Living the Good Life," Seattle, Feb. 28.

Gary D. McGill, assistant regional manager, and **Randall B. Williamson,** senior evaluator, spoke on "GAO's Roles, Responsibilities, Functions, and Operations," at a meeting of the Bellevue, WA, Chamber of Commerce, Mar. 23.

Sterling J. Leibenguth, senior evaluator, and **Janet E. Corrigan,** evaluator, discussed career opportunities in the Federal Government and GAO at a meeting of the Beta Alpha Psi accounting fraternity, University of Washington, Seattle, Apr. 13.

Stephen J. Jue, technical as-

sistance group manager, spoke on "Risk Assessment As It Applies To Computerized Data," at the spring meeting of the Pacific Northwest Intergovernmental Audit Forum, Seattle, Apr. 22.

Donald A. Praast, senior evaluator, received the Outstanding Service Award from the Pacific Northwest Intergovernmental Audit Forum for his work and accomplishments as the forum's executive secretary from 1978 to 1982, Seattle, Apr. 22.

Gary E. Ziebarth, senior evaluator, along with **Maurice Moody,** evaluator, HRD, discussed GAO's report, "Labor Should Make Sure CETA Programs Have Effective Employability Development Systems" (HRD-82-2, Jan. 13, 1982), at a workshop for Tennessee State, local, and private nonprofit CETA training personnel, sponsored by the Center for Manpower Studies, Tennessee Employment and Training Institute, Memphis State University, Nashville, Apr. 22-23.

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."

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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.

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The GAO Review